

**United States Army**  
Fort Monmouth, New Jersey

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**Underground Storage Tank  
Closure and Site Investigation  
Report**

***Building 2000***  
***Charles Wood***

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**NJDEP UST Registration No. 192486-1**  
**NJDEP Closure Approval No. C-93-3884**

**May 2000**

**VOLUME 1 of 3**

**UNDERGROUND STORAGE TANK  
CLOSURE AND SITE INVESTIGATION REPORT**

**BUILDING 2000**

**CHARLES WOOD  
NJDEP UST REGISTRATION NO. 192486-1  
NJDEP CLOSURE APPROVAL NO. C-93-3884**

**MAY 2000**

**PROJECT NO.: 09-5004-12  
CONTRACT NO.: DACA51-94-D-0014**

**PREPARED FOR:**

**UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY  
DIRECTORATE OF PUBLIC WORKS  
BUILDING 167  
FORT MONMOUTH, NJ 07703**

**PREPARED BY:**

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## EXECUTIVE SUMMARY

### UST Closure

On May 17, 1994, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3884 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 192486-1, was located immediately adjacent to Building 2000 in the Charles Wood area of U.S. Army, Fort Monmouth. UST No. 192486-1 was a 3,000-gallon No. 2 fuel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

### Site Assessment - Soil

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. Several corrosion holes were noted in the UST and evidence of potentially contaminated soils was observed surrounding the tank.

On May 17, 1994, prior to the removal of the UST, the UST fuel lines were pressure tested and abandoned in place. This was performed because the fuel lines ran below the adjacent street at approximately 10 feet below ground surface (bgs).

Based on an inspection of the UST, and field screening of subsurface soils the Directorate of Public Works (DPW) concluded that an historical discharge was associated with the UST. On May 18, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 192486-1 and was assigned Spill Case No. 94-5-18-0936-36.

On May 18, 1994 and May 19, 1994, a total of (> 10) cubic yards of potentially contaminated soil were removed from the UST excavation due to a suspected release.

On May 23, 1994, post-excavation soil samples A, B, C, D, E, F, and G were collected from a total of seven (7) locations along the sidewalls of the excavation, immediately above groundwater. Samples A, B, C, D, E, and F were collected at a depth of 7.5 bgs. Sample G was collected at a depth of 6.5 feet bgs. Groundwater was present at approximately 8.0 feet bgs. The samples were analyzed for TPHC.

On May 31, 1994, post-excavation soil samples A-2 and F-2 were collected in the vicinity of samples A and F due to previously elevated TPHC results. The samples were collected at a depth of 7.5 feet bgs via backhoe. The samples were analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether,

tertiary butyl alcohol, and lead. Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

### Findings - Soil

The post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 2000 contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples B, D, E, and F, collected on May 23, 1994, contained TPHC concentrations ranging from 39.6 mg/kg to 945.0 mg/kg. Sample A contained an elevated TPHC concentration of 15,000.0 mg/kg. Samples C and G contained non-detectable concentrations of TPHC.

Samples A-2 and F-2, collected on May 31, 1994 contained lead concentrations of 3.37 mg/kg and 3.39 mg/kg. The VOC results were either below the detection limit or in compliance with the NJDEP Soil Cleanup Criteria.

### Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill. The excavation site was then restored to its original condition.

### Site Assessment Quality Assurance

The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements*.

### Site Assessment - Groundwater

In response to the observation of potentially contaminated soil near the shallow water table, one shallow overburden monitoring well (MW-3) was installed at the Building 2000 area on September 23, 1994. It was installed approximately 50 feet east of the UST excavation in the downgradient direction. It was screened in the 2.0 to 12.0 foot depth interval, across the water table, which is approximately 8.0 feet below grade surface.

On May 19, 1995, and June 14, 1995, MW-3 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

### Findings - Groundwater

All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Standards (GWQS). No product or sheen was observed in MW-1 on either of the sampling dates.

The depth to the water table was 10.59 feet below grade on May 19, 1995, and 11.09 feet below grade on June 14, 1995.

### Discrepancies

The removal contractor collected soil samples using polystyrene scoops instead of NJDEP approved stainless steel scoops. The results of the soil samples were therefore evaluated at 50% of the actual value to compensate for any potential loss due to absorbency of the polystyrene scoop.

### Conclusions and Recommendations

Based on the post-excavation soil sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do not remain in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on May 19, 1995 and June 14, 1995, groundwater quality at the Building 2000 UST closure site complies with the New Jersey GWQS for VOCs and SVOCs.

No further action is proposed in regard to the closure and site assessment of UST No. 192486-1 at Building 2000.

## 1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

### 1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 192486-1, was closed at Building 2000 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on May 17, 1994. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on July 27, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3884. The UST was a steel 3,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 192486-1 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE, the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 192486-1 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 192486-1 are included in Appendices A and B, respectively.

Based on an inspection of the UST, and field screening of subsurface soils the DPW has concluded that an historical discharge was associated with the UST. On May 18, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 0090010-45 and was assigned Spill Case No. 94-5-18-0936-36.

This UST Closure and Site Investigation Report has been prepared by ATC Associates, Inc., to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

This report was prepared using information required at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

## 1.2 SITE DESCRIPTION

Building 2000 is located in the northeastern portion of the Charles Wood area of Fort Monmouth, as shown on Figure 1. UST No. 192486-1 was located northwest of Building 2000 and appurtenant piping ran approximately 35 feet southeast from the excavation to Building 2000. The fill port area was located directly above the tank. A site map is provided on Figure 2.

### 1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 2000. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Charles Wood area.

#### Regional Geology

Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. The Main Post, Charles Wood, and the Evans areas are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

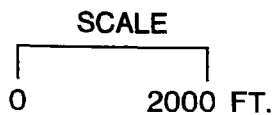
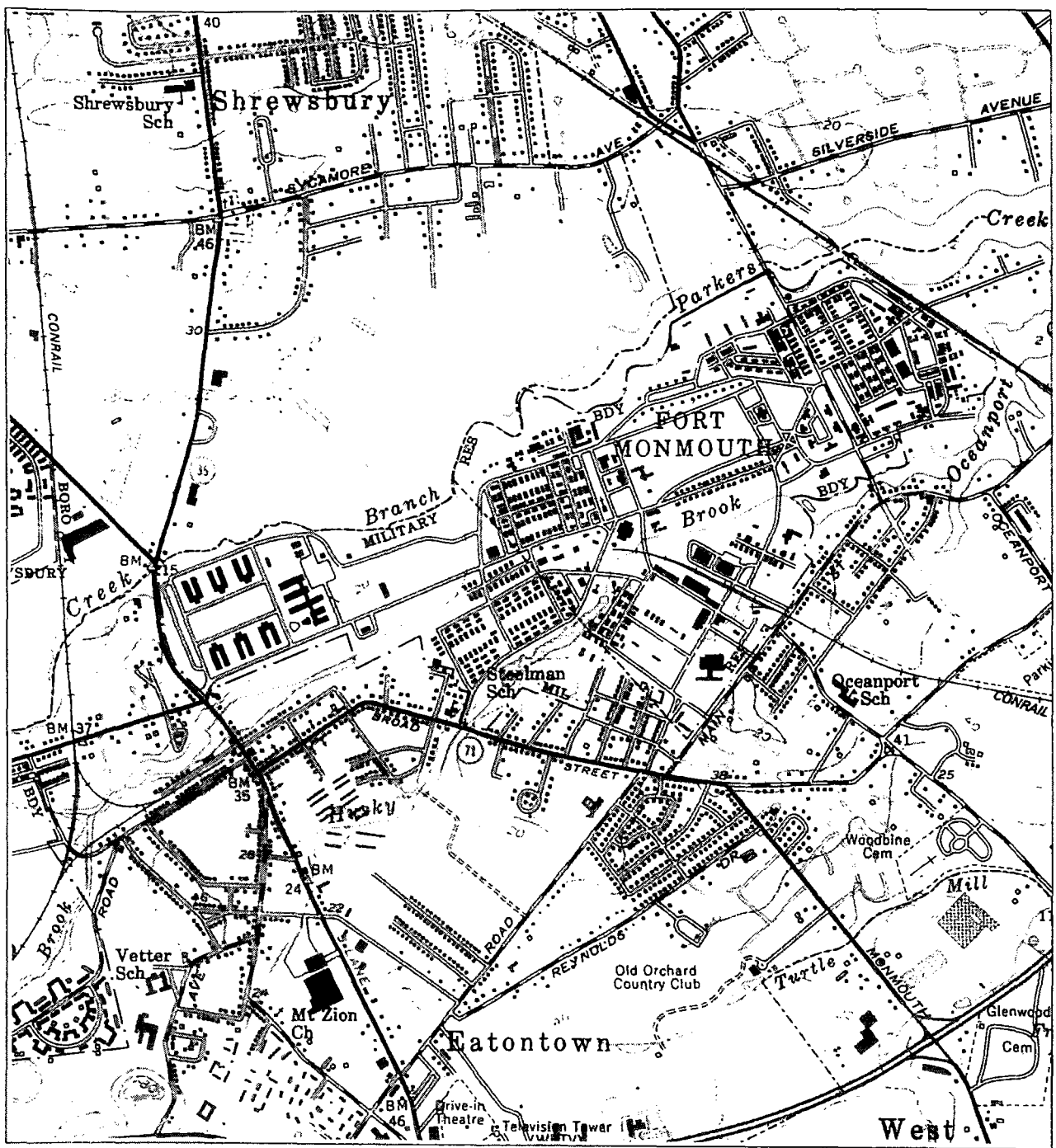
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thicknesses for these units vary greatly (i.e., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line to greater than 6,500 feet in Cape May County (Brown and Zapeczka, 1990).

#### Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Charles Wood area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member

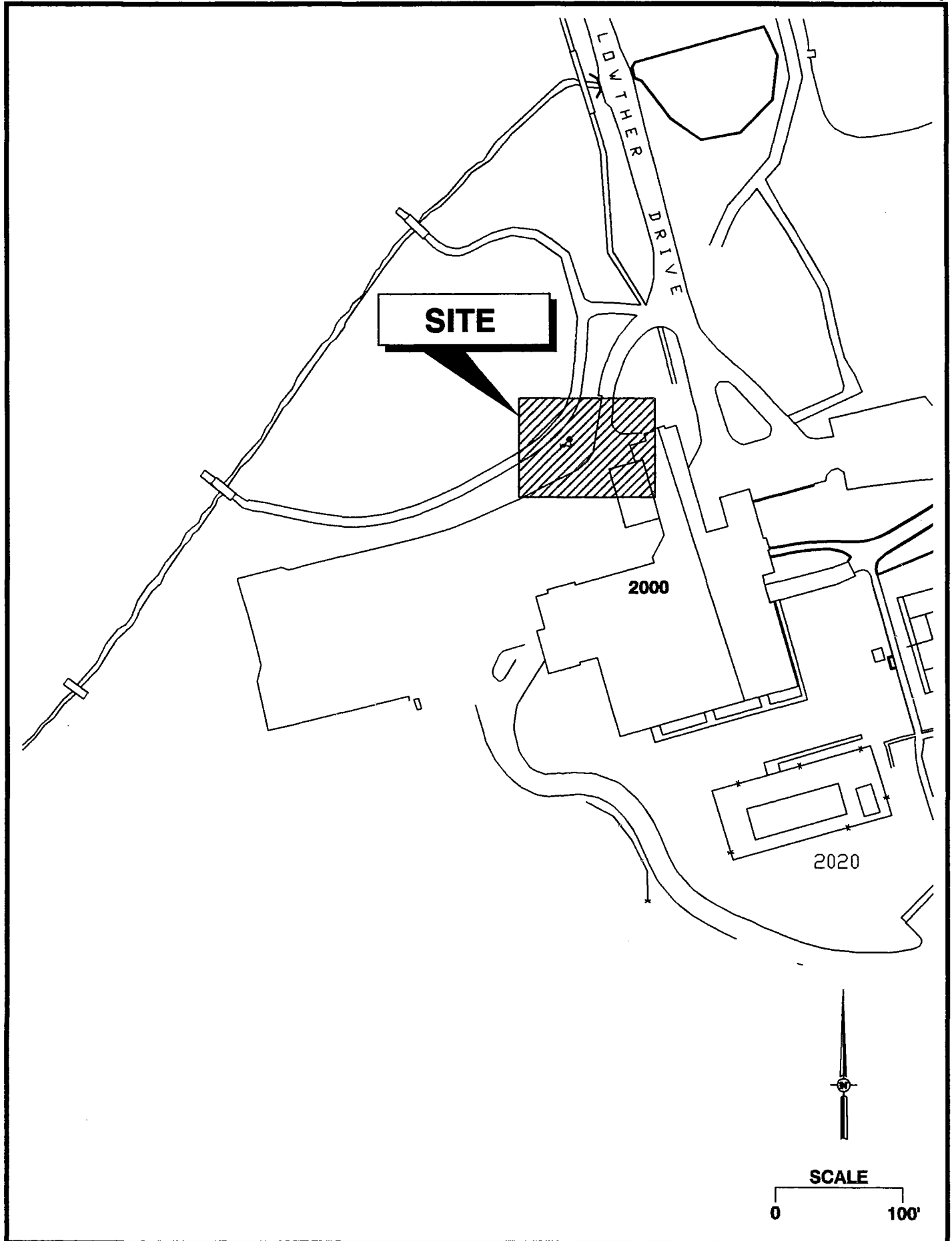
Source: Long Branch, New Jersey Quadrangle



NEW JERSEY



QUADRANGLE LOCATION



(Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

The Tinton sand conformably overlies the Red Bank Sand and ranges from a clayey medium to very coarse grained feldspathic quartz and glauconite sand to a glauconitic coarse sand. The color varies from dark yellowish orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit (Minard, 1969). The upper part of the Tinton is often highly oxidized and ironoxide encrusted (Minard).

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Topographic elevations for the Charles Wood area range from 20 feet above mean seal level (MSL) to 71 feet above MSL.

### Hydrogeology

The water table aquifer at the Charles Wood area is identified as part of the "composite confining units", or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincenttown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

Six well records for monitor wells installed at locations within the Charles Wood area in February 1981 were used for reference. The wells were completed to total depths ranging from 20 to 25 feet below ground surface (bgs). Water was encountered at depths ranging from 5 to 12 feet bgs. The depth to the water table measured on June 8, 9, and 10, 1993, in the Building 2500 monitoring well MW-1, MW-2, MW-3, and MW-4, were approximately 7 feet below grade for each well.

The lithologic descriptions for these borings described deposits that were primarily fine to coarse, glauconitic sands, with traces of gravel, silt, and clay. These sediments are part of the Hornerstown Marl, from the Tertiary Period (Paleocene Series, approximately 58 to 66 Ma). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce from 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Shallow groundwater is locally influenced within the Charles Wood area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries)
- topography
- nature of the fill material within the Charles Wood area
- presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)



Due to the fluvial nature of the overburden deposits (i.e., sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. This is consistent with lithologies observed in borings installed within the Charles Wood area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of gravel silt and/or clay.

### **1.3 HEALTH AND SAFETY**

Before, during, and after all decommissioning activities, hazards at the work site which may have posed a threat to the Health and Safety of all personnel who were involve with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing an organic vapor analyzer (OVA). The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

### **1.4 REMOVAL OF UNDERGROUND STORAGE TANK**

#### **1.4.1 General Procedures**

- All underground obstructions (utilities, etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.
- A Sub-Surface Evaluator from the DPW was present during all site assessment activities.

#### **1.4.2 Underground Storage Tank Excavation and Cleaning**

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 775 gallons of

liquid were transported by Freehold Cartage Inc.(FCI) to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Approximately 1,590 gallons of liquid were transported by FCI to E.I. Dupont Company located in Deepwater, New Jersey. Refer to Appendix C for the waste manifests (NJ-1603193 and FCI G-52826).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. Several corrosion holes were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Evidence of contamination was observed.

## **1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL**

The tank was transported by CUTE to Mazza and Sons Inc. for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

The removal contractor labeled the UST prior to transport with the following information:

- site of origin
- contact person
- NJDEP UST Facility ID number
- name of transporter/contact person
- destination site/contact person

## **1.6 MANAGEMENT OF EXCAVATED SOILS**

Based on visual observations, approximately (> 10) cubic yards of potentially contaminated soils were excavated from the UST excavation. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to Hazardous Waste Storage Area on Charles Wood for storage prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

## 2.0 SITE INVESTIGATION ACTIVITIES

### 2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. TPHC sample analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory Inc. VOC, SVOC, and lead analyses were performed and reported by Princeton Testing Laboratory. Both laboratories are NJDEP-certified testing laboratories. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up The Environment Inc. (CUTE)  
Closure Supervisor: John Lonergan  
Phone Number: (201)427-2881  
NJDEP Certification No.: 3248
- Subsurface Evaluator: Charles M. Appleby  
Employer: U.S. Army Fort Monmouth  
Phone Number: (908) 532-6224  
NJDEP Certification No.: 2056
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory  
Contact Person: Brian K. McKee  
Phone Number: (908)532-4359  
NJDEP Certification No.: 13461
- Analytical Laboratory: Princeton Testing Laboratory  
Contact Person: Not Available  
Phone Number: (609)452-9050  
NJDEP Company Certification No.: 11118
- Hazardous Waste Hauler: Freehold Cartage Inc.  
Contact Person: Barry Olsen  
Phone Number: (908)721-0900  
NJDEP Hazardous Waste Hauler No.: 2265

## 2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed from the excavation surrounding UST No. 192486-1 until no evidence of contamination remained.

## 2.3 SOIL SAMPLING

On May 23, 1994, post-excavation soil samples A, B, C, D, E, F, and G were collected from a total of seven (7) locations along the sidewalls of the excavation, immediately above groundwater. Samples A, B, C, D, E, and F were collected at a depth of 7.5 below ground surface (bgs). Sample G was collected at a depth of 6.5 feet bgs. Groundwater was present at approximately 8.0 feet bgs. The samples were analyzed for TPHC.

Two additional soil samples were collected on May 31, 1994 in the vicinity of samples A and F due to elevated TPHC results. These samples were collected at a depth of 7.5 feet bgs and were analyzed for VOCs and lead.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 412.0 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

## 2.4 GROUNDWATER SAMPLING

### 2.4.1 Monitoring Well Installation

In response to the observation of potentially contaminated soil near the shallow water table, one shallow monitoring well (MW-3) was installed at the Building 2000 area on September 23, 1995. It was installed approximately 50 feet east of the UST excavation in the downgradient direction. It was screened in the 2.0 to 12.0 foot interval, across the water table, which is approximately 8.0 feet below grade surface.

TABLE 1  
SUMMARY OF SAMPLING ACTIVITIES  
BUILDING 2000, MAIN POST  
FORT MONMOUTH, NEW JERSEY

| Sample ID | Date of Collection | Matrix  | Sample Type     | Analytical Parameters<br>(and USEPA Methods) * | Sampling Method           |
|-----------|--------------------|---------|-----------------|------------------------------------------------|---------------------------|
| A         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| B         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| C         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| D         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| E         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| F         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| G         | 5/23/94            | Soil    | Post-Excavation | TPHC                                           | Polystyrene Scoop         |
| A-2       | 5/31/94            | Soil    | Post-Excavation | VOCs, Pb                                       | Polystyrene Scoop         |
| F-2       | 5/31/94            | Soil    | Post-Excavation | VOCs, Pb                                       | Polystyrene Scoop         |
| MW-3      | 5/19/95            | Aqueous | Groundwater     | VOCs, SVOCs                                    | Teflon Bottom Fill Bailer |
| MW-3      | 6/14/95            | Aqueous | Groundwater     | VOCs, SVOCs                                    | Teflon Bottom Fill Bailer |

**\*Note:**

TPHC: Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)  
VOCs: Volatile Organic Compounds calibrated for xylene plus 10 tentatively identified compounds (Method 524.2 / aqueous)  
SVOCs: Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)  
Pb: Lead (Method SW-846 - soil / EPA 239.2 - aqueous)

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

2000TBL.XLS

The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual*. The NJDEP well drilling permit and a well construction log is presented in Appendix E.

The well was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The sand pack was extended approximately 2 feet above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The boreholes were tremie-grouted with bentonite-cement grout from the top of the sand pack to 6 inches bgs. The wells are secured with a steel protective casing with a stickup that is approximately 3.0 feet above ground surface. The steel protective casings were set in place with concrete, which was placed in the remaining open boreholes. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit numbers were marked on the each well casing as required.

The monitoring well was developed using a peristaltic surface pump. The well was pumped for 1 hour or until silt free. All residual soils and liquids generated during monitoring well installation and development program were collected in New Jersey Department of Transportation-approved 55-gallon drums. The drums were placed in a designated secure location for waste characterization and offsite disposal.

#### **2.4.2 Monitoring Well Sampling**

On May 18, 1995 and June 14, 1995, MW-3 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

Prior to sampling, the water level was measured to the nearest 0.01 feet, and the distance to the bottom of the well was to be measured to the nearest 0.1 feet. The well was checked for floating product (light non-aqueous phase liquids). The well was purged of three to five well volumes of standing water. Sample volume was then collected using a dedicated decontaminated Teflon bottom-filled bailer attached to PTFE (Teflon)-coated stainless steel.

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

### 3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of seven (7) locations on May 23, 1994 and were analyzed for TPHC. Two additional soil samples were collected on May 31, 1994 and were analyzed for VOCs and lead. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and Table 3 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

Post-excavation soil samples C and G contained a non-detectable concentration of TPHC. Soil samples B, D, E, and F contained TPHC concentrations ranging from 39.6 mg/kg to 945.0 mg/kg. Sample A contained an elevated TPHC concentration of 15,000.0 mg/kg, which exceeded the NJDEP soil cleanup criteria for total organics of 10,000 mg/kg. Due to elevated TPHC concentrations from samples A and F, soil samples A-2 and F-2 were collected on May 31, 1994 in the vicinity of previous sample locations A and F and were analyzed for VOCs and lead. Samples A-2 and F-2 contained lead concentrations of 3.37 mg/kg and 3.39 mg/kg, respectively. Sample A-2 contained non-detectable concentrations of VOCs. Sample F-2 contained methylene chloride at 0.0082 mg/kg, which is below the most stringent soil cleanup criteria of 1.0 mg/kg. No other compounds were detected.

### 3.2 GROUNDWATER SAMPLING RESULTS

All VOC and SVOC results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Standard (GWQS).

The sample collected from MW-3 on May 19, 1995, contained methylene chloride at 1.9 ug/l, 1,3,5-trimethylbenzene at 0.7 ug/l, 1,2,4-trimethylbenzene at 1.5 ug/l, sec-butylbenzene at 0.6 ug/l, n-butylbenzene at 0.8 ug/l, and naphthalene at 0.8 ug/l. The results are below the NJDEP GWQS. No other compounds were detected.

The sample collected from MW-3 on June 14, 1995, contained methylene chloride at 0.8 ug/l, 1,3,5-trimethylbenzene at 0.6 ug/l, 1,2,4-trimethylbenzene at 1.1 ug/l, sec-butylbenzene at 0.5 ug/l, 4-isopropyltoluene at 0.5 ug/l, and n-butylbenzene at 0.6 ug/l. These results are below the NJDEP GWQS. All other VOC and SVOC compounds were either non-detectable or below the GWQS.

TABLE 2  
POST-EXCAVATION SOIL SAMPLING RESULTS  
BUILDING 2000, MAIN POST  
FORT MONMOUTH, NEW JERSEY

| Sample ID/Depth | Sample Laboratory ID | Sample Date | Analysis Date | Compound Name | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | NJDEP Soil Cleanup Criteria * (mg/kg) | Exceeds Cleanup Criteria |
|-----------------|----------------------|-------------|---------------|---------------|-----------------------------------|---------------------|----------------|---------------------------------------|--------------------------|
| A               | 1500.1               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 76 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 69                                | yes                 | 15,000         | 10,000                                | --                       |
| B               | 1500.2               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 75 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | 222            | 10,000                                | --                       |
| C               | 1500.3               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 84 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | ND             | 10,000                                | --                       |
| D               | 1500.4               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 77 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | 206            | 10,000                                | --                       |
| E               | 1500.5               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 81 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | 39.6           | 10,000                                | --                       |
| F               | 1500.6               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 83 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | 945            | 10,000                                | --                       |
| G               | 1500.7               | 5/23/94     | 5/23/94       | Total % Solid | --                                | --                  | 85 %           | --                                    | --                       |
|                 |                      |             |               | TPHC          | 6.6                               | yes                 | ND             | 10,000                                | --                       |

NOTES:

--: Not applicable / does not exceed criteria  
\*: Cleanup criteria for total organics  
ND: Indicates compound not detected

Actual soil TPHC values may be higher than reported due to absorbancy by polystyrene scoops. If absorbancy resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 444.0 mg/kg.

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

2000TBL.XLS



TABLE 3  
POST-EXCAVATION SOIL SAMPLING RESULTS  
BUILDING 2000, CHARLES WOOD  
FORT MONMOUTH, NEW JERSEY

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | Soil Cleanup Criteria* (mg/kg) | Exceeds Criteria |
|-----------------|-------------|---------------|---------------------------|-----------------------------------|---------------------|----------------|--------------------------------|------------------|
| A-2             | 5/31/94     | 6/1/94        | Lead                      | --                                | --                  | 3.37           | 400                            | --               |
|                 |             |               | VOLATILE ORGANICS:        |                                   |                     |                |                                |                  |
|                 |             |               | Chloromethane             | 29                                | --                  | ND             | 520/10                         | --               |
|                 |             |               | Bromomethane              | 29                                | --                  | ND             | 79/1                           | --               |
|                 |             |               | Vinyl Chloride            | 29                                | --                  | ND             | 2/10                           | --               |
|                 |             |               | Chloroethane              | 29                                | --                  | ND             | --                             | --               |
|                 |             |               | Methylene Chloride        | 14                                | --                  | ND             | 49/1                           | --               |
|                 |             |               | Acetone                   | 14                                | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Carbon Disulfide          | 14                                | --                  | ND             | --                             | --               |
|                 |             |               | 1,1-Dichloroethene        | 14                                | --                  | ND             | 8/10                           | --               |
|                 |             |               | 1,1-Dichloroethane        | 14                                | --                  | ND             | 570/10                         | --               |
|                 |             |               | 1,2-Dichloroethene(total) | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Chloroform                | 14                                | --                  | ND             | 19/1                           | --               |
|                 |             |               | 1,2-Dichloroethane        | 14                                | --                  | ND             | 6/1                            | --               |
|                 |             |               | 2-Butanone                | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | 1,1,1-Trichloroethane     | 14                                | --                  | ND             | 210/50                         | --               |
|                 |             |               | Carbon Tetrachloride      | 14                                | --                  | ND             | 2/1                            | --               |
|                 |             |               | Bromodichloromethane      | 14                                | --                  | ND             | 11/1                           | --               |
|                 |             |               | 1,1,2,2-Tetrachloroethane | 14                                | --                  | ND             | 34/1                           | --               |
|                 |             |               | 1,2-Dichloropropane       | 14                                | --                  | ND             | 10/--                          | --               |
|                 |             |               | trans-1,3-Dichloropropene | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Trichloroethene           | 14                                | --                  | ND             | 23/1                           | --               |
|                 |             |               | Dibromochloromethane      | 14                                | --                  | ND             | 110/1                          | --               |
|                 |             |               | 1,1,2-Trichloroethane     | 14                                | --                  | ND             | 22/1                           | --               |
|                 |             |               | Benzene                   | 14                                | --                  | ND             | 3/1                            | --               |
|                 |             |               | cis-1,3-Dichloropropene   | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Bromoform                 | 14                                | --                  | ND             | 86/1                           | --               |
|                 |             |               | 2-Hexanone                | 14                                | --                  | ND             | --                             | --               |
|                 |             |               | 4-Methyl-2-Pentanone      | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Tetrachloroethene         | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Toluene                   | 14                                | --                  | ND             | 1,000/500                      | --               |
|                 |             |               | Chlorobenzene             | 14                                | --                  | ND             | 37/1                           | --               |
|                 |             |               | Ethylbenzene              | 14                                | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Styrene                   | 14                                | --                  | ND             | 23/100                         | --               |
|                 |             |               | Total Xylenes             | 14                                | --                  | ND             | 410/10                         | --               |

TABLE 3  
POST-EXCAVATION SOIL SAMPLING RESULTS  
BUILDING 2000, CHARLES WOOD  
FORT MONMOUTH, NEW JERSEY

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | Soil Cleanup Criteria* (mg/kg) | Exceeds Criteria |
|-----------------|-------------|---------------|---------------------------|-----------------------------------|---------------------|----------------|--------------------------------|------------------|
| F-2             | 5/31/94     | 6/1/94        | Lead                      | --                                | --                  | 3.39           | 400                            | --               |
|                 |             |               | VOLATILE ORGANICS:        |                                   |                     |                |                                |                  |
|                 |             |               | Chloromethane             | 28                                | --                  | ND             | 520/10                         | --               |
|                 |             |               | Bromomethane              | 28                                | --                  | ND             | 79/1                           | --               |
|                 |             |               | Vinyl Chloride            | 28                                | --                  | ND             | 2/10                           | --               |
|                 |             |               | Chloroethane              | 28                                | --                  | ND             | --                             | --               |
|                 |             |               | Methylene Chloride        | 8.2                               | --                  | ND             | 49/1                           | IGW              |
|                 |             |               | Acetone                   | 14                                | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Carbon Disulfide          | 14                                | --                  | ND             | --                             | --               |
|                 |             |               | 1,1-Dichloroethene        | 14                                | --                  | ND             | 8/10                           | --               |
|                 |             |               | 1,1-Dichloroethane        | 14                                | --                  | ND             | 570/10                         | --               |
|                 |             |               | 1,2-Dichloroethene(total) | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Chloroform                | 14                                | --                  | ND             | 19/1                           | --               |
|                 |             |               | 1,2-Dichloroethane        | 14                                | --                  | ND             | 6/1                            | --               |
|                 |             |               | 2-Butanone                | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | 1,1,1-Trichloroethane     | 14                                | --                  | ND             | 210/50                         | --               |
|                 |             |               | Carbon Tetrachloride      | 14                                | --                  | ND             | 2/1                            | --               |
|                 |             |               | Bromodichloromethane      | 14                                | --                  | ND             | 11/1                           | --               |
|                 |             |               | 1,1,2,2-Tetrachloroethane | 14                                | --                  | ND             | 34/1                           | --               |
|                 |             |               | 1,2-Dichloropropane       | 14                                | --                  | ND             | 10/--                          | --               |
|                 |             |               | trans-1,3-Dichloropropene | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Trichloroethene           | 14                                | --                  | ND             | 23/1                           | --               |
|                 |             |               | Dibromochloromethane      | 14                                | --                  | ND             | 110/1                          | --               |
|                 |             |               | 1,1,2-Trichloroethane     | 14                                | --                  | ND             | 22/1                           | --               |
|                 |             |               | Benzene                   | 14                                | --                  | ND             | 3/1                            | --               |
|                 |             |               | cis-1,3-Dichloropropene   | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Bromoform                 | 14                                | --                  | ND             | 86/1                           | --               |
|                 |             |               | 2-Hexanone                | 14                                | --                  | ND             | --                             | --               |
|                 |             |               | 4-Methyl-2-Pentanone      | 14                                | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Tetrachloroethene         | 14                                | --                  | ND             | 4/1                            | --               |
|                 |             |               | Toluene                   | 14                                | --                  | ND             | 1,000/500                      | --               |
|                 |             |               | Chlorobenzene             | 14                                | --                  | ND             | 37/1                           | --               |
|                 |             |               | Ethylbenzene              | 14                                | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Styrene                   | 14                                | --                  | ND             | 23/100                         | --               |
|                 |             |               | Total Xylenes             | 14                                | --                  | ND             | 410/10                         | --               |

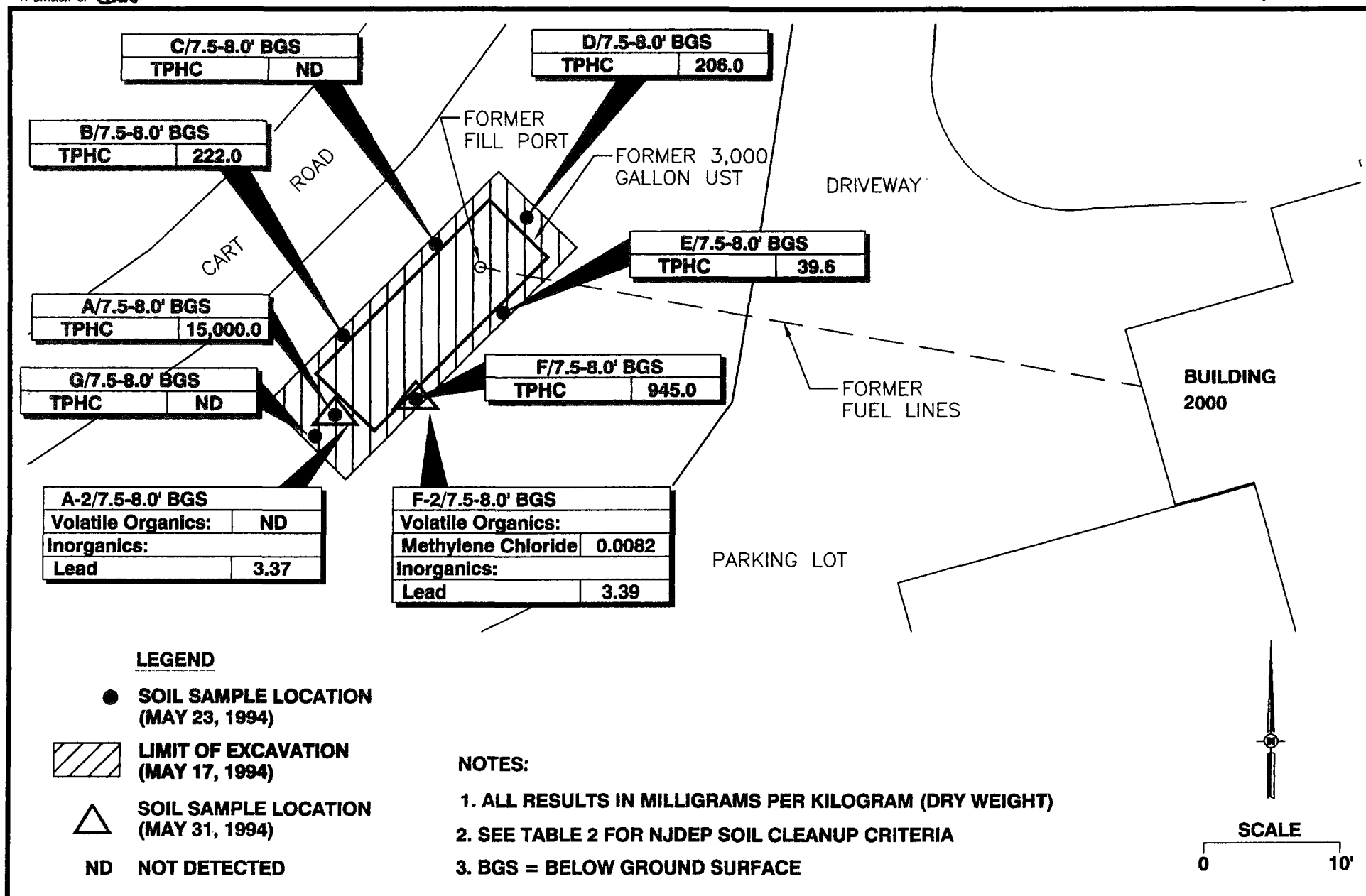
TABLE 3  
POST-EXCAVATION SOIL SAMPLING RESULTS  
BUILDING 2000, CHARLES WOOD  
FORT MONMOUTH, NEW JERSEY

| Sample ID/Depth | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (mg/kg) | Compound of Concern | Result (mg/kg) | Soil Cleanup Criteria* (mg/kg) | Exceeds Criteria |
|-----------------|-------------|---------------|---------------------------|-----------------------------------|---------------------|----------------|--------------------------------|------------------|
| FIELD BLANK     | 5/31/94     | 6/1/94        | Lead                      | --                                | --                  | 4.7            | 400                            | --               |
|                 |             |               | VOLATILE ORGANICS:        |                                   |                     |                |                                |                  |
|                 |             |               | Chloromethane             | 10                                | --                  | ND             | 520/10                         | --               |
|                 |             |               | Bromomethane              | 10                                | --                  | ND             | 79/1                           | --               |
|                 |             |               | Vinyl Chloride            | 10                                | --                  | ND             | 2/10                           | --               |
|                 |             |               | Chloroethane              | 10                                | --                  | ND             | --                             | --               |
|                 |             |               | Methylene Chloride        | 5                                 | --                  | ND             | 49/1                           | --               |
|                 |             |               | Acetone                   | 5                                 | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Carbon Disulfide          | 5                                 | --                  | ND             | --                             | --               |
|                 |             |               | 1,1-Dichloroethene        | 5                                 | --                  | ND             | 8/10                           | --               |
|                 |             |               | 1,1-Dichloroethane        | 5                                 | --                  | ND             | 570/10                         | --               |
|                 |             |               | 1,2-Dichloroethene(total) | 5                                 | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Chloroform                | 5                                 | --                  | ND             | 19/1                           | --               |
|                 |             |               | 1,2-Dichloroethane        | 5                                 | --                  | ND             | 6/1                            | --               |
|                 |             |               | 2-Butanone                | 5                                 | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | 1,1,1-Trichloroethane     | 5                                 | --                  | ND             | 210/50                         | --               |
|                 |             |               | Carbon Tetrachloride      | 5                                 | --                  | ND             | 2/1                            | --               |
|                 |             |               | Bromodichloromethane      | 5                                 | --                  | ND             | 11/1                           | --               |
|                 |             |               | 1,1,2,2-Tetrachloroethane | 5                                 | --                  | ND             | 34/1                           | --               |
|                 |             |               | 1,2-Dichloropropane       | 5                                 | --                  | ND             | 10/--                          | --               |
|                 |             |               | trans-1,3-Dichloropropene | 5                                 | --                  | ND             | 4/1                            | --               |
|                 |             |               | Trichloroethene           | 5                                 | --                  | ND             | 23/1                           | --               |
|                 |             |               | Dibromochloromethane      | 5                                 | --                  | ND             | 110/1                          | --               |
|                 |             |               | 1,1,2-Trichloroethane     | 5                                 | --                  | ND             | 22/1                           | --               |
|                 |             |               | Benzene                   | 5                                 | --                  | ND             | 3/1                            | --               |
|                 |             |               | cis-1,3-Dichloropropene   | 5                                 | --                  | ND             | 4/1                            | --               |
|                 |             |               | Bromoform                 | 5                                 | --                  | ND             | 86/1                           | --               |
|                 |             |               | 2-Hexanone                | 5                                 | --                  | ND             | --                             | --               |
|                 |             |               | 4-Methyl-2-Pentanone      | 5                                 | --                  | ND             | 1,000/50                       | --               |
|                 |             |               | Tetrachloroethene         | 5                                 | --                  | ND             | 4/1                            | --               |
|                 |             |               | Toluene                   | 5                                 | --                  | ND             | 1,000/500                      | --               |
|                 |             |               | Chlorobenzene             | 5                                 | --                  | ND             | 37/1                           | --               |
|                 |             |               | Ethylbenzene              | 5                                 | --                  | ND             | 1,000/100                      | --               |
|                 |             |               | Styrene                   | 5                                 | --                  | ND             | 23/100                         | --               |
|                 |             |               | Total Xylenes             | 5                                 | --                  | ND             | 410/10                         | --               |

TABLE 3

DATA ANALYSIS QUALIFIER DEFINITIONS  
POST-EXCAVATION SOIL SAMPLING  
FORT MONMOUTH, NEW JERSEY

|       |                                                                |
|-------|----------------------------------------------------------------|
| --:   | Not applicable / does not exceed criteria                      |
| *:    | Residential Direct Contact (RDC) / Impact to Groundwater (IGW) |
| (J):  | Indicates detected below sample quantitation limit             |
| (B):  | Indicates also present in blank                                |
| (ND): | Indicates compound not detected                                |
| (NA): | Not available for this constituent                             |



No product or sheen was observed in MW-3 on either of the sampling dates. The depth to the water table in MW-3 was 10.59 feet below grade on May 19, 1995, and 11.09 feet below grade on June 14, 1995.

All groundwater analytical results are presented in Table 4 and shown on Figure 4. The groundwater analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, DPW.

### **3.3 CONCLUSIONS AND RECOMMENDATIONS**

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 2000 are below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do not remain in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on May 19, 1995 and June 14, 1995, groundwater quality at the Building 2000 UST closure site complies with the New Jersey Groundwater Quality Standards for VOCs and SVOCs.

The existing discrepancy as listed in the Executive Summary is believed to be acceptable as explained and does not warrant further investigation or explanation. Procedures have been corrected to eliminate recurrences in the future.

No further action is proposed in regard to the closure and site assessment of UST No. 192486-1 at Building 2000.

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/L) | Compound of Concern | Result (ug/L) | GWQS (ug/L) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 5/19/95     | 6/3/95        | N-nitrosodimethylamine      | 2                                | --                  | ND            | 20          | --               |
|           |             |               | bis(2-Chloroethyl)Ether     | 1                                | --                  | ND            | 10          | --               |
|           |             |               | 1,3-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|           |             |               | 1,4-Dichlorobenzene         | 1                                | --                  | ND            | 75          | --               |
|           |             |               | 1,2-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|           |             |               | bis(2-chloroisopropyl)ether | 5                                | --                  | ND            | --          | --               |
|           |             |               | N-Nitroso-Di-N-propylamine  | 2                                | --                  | ND            | 20          | --               |
|           |             |               | Hexachloroethane            | 1                                | --                  | ND            | 10          | --               |
|           |             |               | Nitrobenzene                | 2                                | --                  | ND            | 10          | --               |
|           |             |               | Isophorone                  | 1                                | --                  | ND            | 100         | --               |
|           |             |               | bis(2-Chloroethoxy)methane  | 3                                | --                  | ND            | --          | --               |
|           |             |               | 1,2,4-Trichlorobenzene      | 2                                | --                  | ND            | 9           | --               |
|           |             |               | Naphthalene                 | 2                                | --                  | ND            | 300         | --               |
|           |             |               | Hexachlorobutadiene         | 2                                | --                  | ND            | 1           | --               |
|           |             |               | Hexachlorocyclopentadiene   | 12                               | --                  | ND            | 50          | --               |
|           |             |               | 2-Chloronaphthalate         | 1                                | --                  | ND            | --          | --               |
|           |             |               | Dimethylphthalate           | 1                                | --                  | ND            | --          | --               |
|           |             |               | Acenaphthylene              | 5                                | --                  | ND            | NA          | --               |
|           |             |               | 2,6-Dinitrotoluene          | 2                                | --                  | ND            | NA          | --               |
|           |             |               | Acenaphthene                | 3                                | --                  | ND            | 400         | --               |
|           |             |               | 2,4-Dinitrotoluene          | 3                                | --                  | ND            | 10          | --               |
|           |             |               | Diethylphthalate            | 1                                | --                  | ND            | 5,000       | --               |
|           |             |               | Fluorene                    | 3                                | --                  | ND            | 300         | --               |
|           |             |               | 4-Chlorophenyl-phenylether  | 3                                | --                  | ND            | --          | --               |
|           |             |               | n-Nitrosodiphenylamine      | 6                                | --                  | ND            | 20          | --               |
|           |             |               | 1,2-Diphenylhydrazine(as az | 6                                | --                  | ND            | --          | --               |
|           |             |               | 4-Bromophenyl-phenylether   | 2                                | --                  | ND            | --          | --               |
|           |             |               | Hexachlorobenzene           | 2                                | --                  | ND            | 10          | --               |
|           |             |               | Phenanthrene                | 2                                | --                  | ND            | NA          | --               |
|           |             |               | Anthracene                  | 2                                | --                  | ND            | 2,000       | --               |
|           |             |               | Di-n-butylphthalate         | 5                                | --                  | ND            | 900         | --               |
|           |             |               | Fluoranthene                | 1                                | --                  | ND            | 300         | --               |
|           |             |               | Benzidine                   | 1                                | --                  | ND            | 50          | --               |
|           |             |               | Pyrene                      | 2                                | --                  | ND            | 200         | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name              | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 5/19/95     | 6/3/95        | Butylbenzylphthalate       | 9                                | --                  | ND            | --          | --               |
|           |             |               | Benzo(a)anthracene         | 2                                | --                  | ND            | 0.05        | --               |
|           |             |               | 3,3'-Dichlorobenzidine     | 15                               | --                  | ND            | 60          | --               |
|           |             |               | Chrysene                   | 2                                | --                  | ND            | 5           | --               |
|           |             |               | bis(2-Ethylhexyl)phthalate | 4                                | --                  | ND            | 30          | --               |
|           |             |               | Di-n-octylphthalate        | 2                                | --                  | ND            | 100         | --               |
|           |             |               | Benzo(b)fluoranthene       | 1                                | --                  | ND            | 0.05        | --               |
|           |             |               | Benzo(k)fluoranthene       | 2                                | --                  | ND            | 0.5         | --               |
|           |             |               | Benzo(a)pyrene             | 2                                | --                  | ND            | 0.005       | --               |
|           |             |               | Indeno(1,2,3-cd)pyrene     | 2                                | --                  | ND            | 0.05        | --               |
|           |             |               | Dibenz(a,h)anthracene      | 3                                | --                  | ND            | --          | --               |
|           |             |               | Benzo(g,h,i)perylene       | 2                                | --                  | ND            | NA          | --               |
|           |             |               | SEMIVOLATILE TICS:         |                                  |                     |               |             |                  |
|           |             |               | Naphthalene,1-methyl       | --                               | --                  | 4 J           | --          | --               |
|           |             |               | Naphthalene,1,6-dimethyl   | --                               | --                  | 5 J           | --          | --               |
|           |             |               | Unknown                    | --                               | --                  | 6 J           | --          | --               |
|           |             |               | Unknown                    | --                               | --                  | 4 J           | --          | --               |
|           |             |               | TOTAL TICS:                | --                               | --                  | 19 J          | --          | --               |



TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 5/19/95     | 6/2/95        | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | 1,000       | --               |
|           |             |               | Chloromethane             | 0.5                              | --                  | ND            | 30          | --               |
|           |             |               | Bromomethane              | 0.5                              | --                  | ND            | 10          | --               |
|           |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|           |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Methylene Chloride        | 1.9                              | --                  | 1.9 B         | 2           | --               |
|           |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|           |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|           |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|           |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|           |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2-Dichloroethane        | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|           |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|           |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|           |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|           |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 5/19/95     | 6/2/95        | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | Toluene                     | 0.5                              | --                  | ND            | 1,000       | --               |
|           |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|           |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|           |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|           |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|           |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 2-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,3,5-Trimethylbenzene      | 0.7                              | --                  | 0.7           | --          | --               |
|           |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2,4-Trimethylbenzene      | 1.5                              | --                  | 1.5           | --          | --               |
|           |             |               | sec-Butylbenzene            | 0.6                              | --                  | 0.6           | --          | --               |
|           |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|           |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|           |             |               | 4-Isopropyltoluene          | 0.8                              | --                  | 0.8           | --          | --               |
|           |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|           |             |               | n-Butylbenzene              | 0.8                              | --                  | 0.8           | --          | --               |
|           |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|           |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | Naphthalene                 | 0.8                              | --                  | 0.8           | 300         | --               |
|           |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | VOLATILE TICS:              |                                  |                     |               |             |                  |
|           |             |               | Benzene,1-methyl-3-propyl   | --                               | --                  | 3 J           | --          | --               |
|           |             |               | Benzene,(1-methylpropyl)    | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,2-ethyl-1,4-dimethy | --                               | --                  | 1 J           | --          | --               |
|           |             |               | Benzene,4-ethyl-1,2-dimethy | --                               | --                  | 3 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILE TICS: (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 5/19/95     | 6/2/95        | VOLATILE TICS:              |                                  |                     |               |             |                  |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |
|           |             |               | Benzene,1,2,3,5-tetramethyl | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,1-ethyl-2,3-dimethy | --                               | --                  | 1 J           | --          | --               |
|           |             |               | 2,3-Dihydro-1-methylindene  | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | TOTAL TICS:                 | --                               | --                  | 27            | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, TRIP BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID  | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| TRIP BLANK | 5/19/95     | 6/2/95        | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Chloromethane             | 0.5                              | --                  | ND            | 30          | --               |
|            |             |               | Bromomethane              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|            |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Methylene Chloride        | 6.4                              | --                  | 6.4 B         | 2           | yes              |
|            |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|            |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|            |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|            |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|            |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dichloroethane        | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|            |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|            |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|            |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|            |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, TRIP BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID  | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| TRIP BLANK | 5/19/95     | 6/2/95        | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | Toluene                     | 0.8                              | --                  | 0.8           | 1,000       | --               |
|            |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|            |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|            |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|            |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|            |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 2-Chlorotoluene             | 0.6                              | --                  | 0.6           | --          | --               |
|            |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,3,5-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2,4-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | sec-Butylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|            |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|            |             |               | 4-Isopropyltoluene          | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|            |             |               | n-Butylbenzene              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|            |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | Naphthalene                 | 0.5                              | --                  | ND            | 300         | --               |
|            |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | VOLATILE TICS:              |                                  |                     |               |             |                  |
|            |             |               | Column Bleed                | --                               | --                  | 1 J           | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES

| Sample ID   | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 5/19/95     | 6/3/95        | N-nitrosodimethylamine      | 2                                | --                  | ND            | 20          | --               |
|             |             |               | bis(2-Chloroethyl)Ether     | 1                                | --                  | ND            | 10          | --               |
|             |             |               | 1,3-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|             |             |               | 1,4-Dichlorobenzene         | 1                                | --                  | ND            | 75          | --               |
|             |             |               | 1,2-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|             |             |               | bis(2-chloroisopropyl)ether | 5                                | --                  | ND            | --          | --               |
|             |             |               | N-Nitroso-Di-N-propylamine  | 2                                | --                  | ND            | 20          | --               |
|             |             |               | Hexachloroethane            | 1                                | --                  | ND            | 10          | --               |
|             |             |               | Nitrobenzene                | 2                                | --                  | ND            | 10          | --               |
|             |             |               | Isophorone                  | 1                                | --                  | ND            | 100         | --               |
|             |             |               | bis(2-Chloroethoxy)methane  | 3                                | --                  | ND            | --          | --               |
|             |             |               | 1,2,4-Trichlorobenzene      | 2                                | --                  | ND            | 9           | --               |
|             |             |               | Naphthalene                 | 2                                | --                  | ND            | 300         | --               |
|             |             |               | Hexachlorobutadiene         | 2                                | --                  | ND            | 1           | --               |
|             |             |               | Hexachlorocyclopentadiene   | 12                               | --                  | ND            | 50          | --               |
|             |             |               | 2-Chloronaphthalate         | 1                                | --                  | ND            | --          | --               |
|             |             |               | Dimethylphthalate           | 1                                | --                  | ND            | --          | --               |
|             |             |               | Acenaphthylene              | 5                                | --                  | ND            | NA          | --               |
|             |             |               | 2,6-Dinitrotoluene          | 2                                | --                  | ND            | NA          | --               |
|             |             |               | Acenaphthene                | 3                                | --                  | ND            | 400         | --               |
|             |             |               | 2,4-Dinitrotoluene          | 3                                | --                  | ND            | 10          | --               |
|             |             |               | Diethylphthalate            | 1                                | --                  | ND            | 5,000       | --               |
|             |             |               | Fluorene                    | 3                                | --                  | ND            | 300         | --               |
|             |             |               | 4-Chlorophenyl-phenylether  | 3                                | --                  | ND            | --          | --               |
|             |             |               | n-Nitrosodiphenylamine      | 6                                | --                  | ND            | 20          | --               |
|             |             |               | 1,2-Diphenylhydrazine(as az | 6                                | --                  | ND            | --          | --               |
|             |             |               | 4-Bromophenyl-phenylether   | 2                                | --                  | ND            | --          | --               |
|             |             |               | Hexachlorobenzene           | 2                                | --                  | ND            | 10          | --               |
|             |             |               | Phenanthrene                | 2                                | --                  | ND            | NA          | --               |
|             |             |               | Anthracene                  | 2                                | --                  | ND            | 2,000       | --               |
|             |             |               | Di-n-butylphthalate         | 5                                | --                  | ND            | 900         | --               |
|             |             |               | Fluoranthene                | 1                                | --                  | ND            | 300         | --               |
|             |             |               | Benzidine                   | 1                                | --                  | ND            | 50          | --               |
|             |             |               | Pyrene                      | 2                                | --                  | ND            | 200         | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES (continued)

| Sample ID   | Sample Date | Analysis Date | Compound Name              | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 5/19/95     | 6/3/95        | Butylbenzylphthalate       | 9                                | --                  | ND            | --          | --               |
|             |             |               | Benzo(a)anthracene         | 2                                | --                  | ND            | 0.05        | --               |
|             |             |               | 3,3'-Dichlorobenzidine     | 15                               | --                  | ND            | 60          | --               |
|             |             |               | Chrysene                   | 2                                | --                  | ND            | 5           | --               |
|             |             |               | bis(2-Ethylhexyl)phthalate | 4                                | --                  | ND            | 30          | --               |
|             |             |               | Di-n-octylphthalate        | 2                                | --                  | ND            | 100         | --               |
|             |             |               | Benzo(b)fluoranthene       | 1                                | --                  | ND            | 0.05        | --               |
|             |             |               | Benzo(k)fluoranthene       | 2                                | --                  | ND            | 0.5         | --               |
|             |             |               | Benzo(a)pyrene             | 2                                | --                  | ND            | 0.005       | --               |
|             |             |               | Indeno(1,2,3-cd)pyrene     | 2                                | --                  | ND            | 0.05        | --               |
|             |             |               | Dibenz(a,h)anthracene      | 3                                | --                  | ND            | --          | --               |
|             |             |               | Benzo(g,h,i)perylene       | 2                                | --                  | ND            | NA          | --               |
|             |             |               | SEMIVOLATILE TICS:         |                                  |                     |               |             |                  |
|             |             |               | Unknown                    | --                               | --                  | 7 J           | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID   | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 5/19/95     | 6/2/95        | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Chloromethane             | 0.5                              | --                  | ND            | 30          | --               |
|             |             |               | Bromomethane              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|             |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Methylene Chloride        | 6.3                              | --                  | 6.3 B         | 2           | yes              |
|             |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|             |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|             |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|             |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|             |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dichloroethane        | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|             |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|             |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|             |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|             |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |



TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID   | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 5/19/95     | 6/2/95        | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | Toluene                     | 0.5                              | --                  | ND            | 1,000       | --               |
|             |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|             |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|             |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|             |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|             |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 2-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,3,5-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2,4-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | sec-Butylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|             |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|             |             |               | 4-Isopropyltoluene          | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|             |             |               | n-Butylbenzene              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|             |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | Naphthalene                 | 0.5                              | --                  | ND            | 300         | --               |
|             |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | VOLATILE TICS:              |                                  |                     |               |             |                  |
|             |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 6/14/95     | 6/27/95       | N-nitrosodimethylamine      | 2                                | --                  | ND            | 20          | --               |
|           |             |               | bis(2-Chloroethyl)Ether     | 1                                | --                  | ND            | 10          | --               |
|           |             |               | 1,3-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|           |             |               | 1,4-Dichlorobenzene         | 1                                | --                  | ND            | 75          | --               |
|           |             |               | 1,2-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|           |             |               | bis(2-chloroisopropyl)ether | 5                                | --                  | ND            | --          | --               |
|           |             |               | N-Nitroso-Di-N-propylamine  | 2                                | --                  | ND            | 20          | --               |
|           |             |               | Hexachloroethane            | 1                                | --                  | ND            | 10          | --               |
|           |             |               | Nitrobenzene                | 2                                | --                  | ND            | 10          | --               |
|           |             |               | Isophorone                  | 1                                | --                  | ND            | 100         | --               |
|           |             |               | bis(2-Chloroethoxy)methane  | 3                                | --                  | ND            | --          | --               |
|           |             |               | 1,2,4-Trichlorobenzene      | 2                                | --                  | ND            | 9           | --               |
|           |             |               | Naphthalene                 | 2                                | --                  | ND            | 300         | --               |
|           |             |               | Hexachlorobutadiene         | 2                                | --                  | ND            | 1           | --               |
|           |             |               | Hexachlorocyclopentadiene   | 12                               | --                  | ND            | 50          | --               |
|           |             |               | 2-Chloronaphthalate         | 1                                | --                  | ND            | --          | --               |
|           |             |               | Dimethylphthalate           | 1                                | --                  | ND            | --          | --               |
|           |             |               | Acenaphthylene              | 5                                | --                  | ND            | NA          | --               |
|           |             |               | 2,6-Dinitrotoluene          | 2                                | --                  | ND            | NA          | --               |
|           |             |               | Acenaphthene                | 3                                | --                  | ND            | 400         | --               |
|           |             |               | 2,4-Dinitrotoluene          | 3                                | --                  | ND            | 10          | --               |
|           |             |               | Diethylphthalate            | 1                                | --                  | ND            | 5,000       | --               |
|           |             |               | Fluorene                    | 3                                | --                  | ND            | 300         | --               |
|           |             |               | 4-Chlorophenyl-phenylether  | 3                                | --                  | ND            | --          | --               |
|           |             |               | n-Nitrosodiphenylamine      | 6                                | --                  | ND            | 20          | --               |
|           |             |               | 1,2-Diphenylhydrazine(as az | 6                                | --                  | ND            | --          | --               |
|           |             |               | 4-Bromophenyl-phenylether   | 2                                | --                  | ND            | --          | --               |
|           |             |               | Hexachlorobenzene           | 2                                | --                  | ND            | 10          | --               |
|           |             |               | Phenanthrene                | 2                                | --                  | ND            | NA          | --               |
|           |             |               | Anthracene                  | 2                                | --                  | ND            | 2,000       | --               |
|           |             |               | Di-n-butylphthalate         | 5                                | --                  | ND            | 900         | --               |
|           |             |               | Fluoranthene                | 1                                | --                  | ND            | 300         | --               |
|           |             |               | Benzidine                   | 1                                | --                  | ND            | 50          | --               |
|           |             |               | Pyrene                      | 2                                | --                  | ND            | 200         | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 6/14/95     | 6/27/95       | Butylbenzylphthalate        | 9                                | --                  | ND            | --          | --               |
|           |             |               | Benzo(a)anthracene          | 2                                | --                  | ND            | 0.05        | --               |
|           |             |               | 3,3'-Dichlorobenzidine      | 15                               | --                  | ND            | 60          | --               |
|           |             |               | Chrysene                    | 2                                | --                  | ND            | 5           | --               |
|           |             |               | bis(2-Ethylhexyl)phthalate  | 4                                | --                  | ND            | 30          | --               |
|           |             |               | Di-n-octylphthalate         | 2                                | --                  | ND            | 100         | --               |
|           |             |               | Benzo(b)fluoranthene        | 1                                | --                  | ND            | 0.05        | --               |
|           |             |               | Benzo(k)fluoranthene        | 2                                | --                  | ND            | 0.5         | --               |
|           |             |               | Benzo(a)pyrene              | 2                                | --                  | ND            | 0.005       | --               |
|           |             |               | Indeno(1,2,3-cd)pyrene      | 2                                | --                  | ND            | 0.05        | --               |
|           |             |               | Dibenz(a,h)anthracene       | 3                                | --                  | ND            | --          | --               |
|           |             |               | Benzo(g,h,i)perylene        | 2                                | --                  | ND            | NA          | --               |
|           |             |               | SEMIVOLATILE TICS:          |                                  |                     |               |             |                  |
|           |             |               | 2-Pentanone,4-hydroxy-4-met | --                               | --                  | 68 J          | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 6/14/95     | 6/27/95       | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Chloromethane             | 0.5                              | --                  | ND            | 30          | --               |
|           |             |               | Bromomethane              | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|           |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Methylene Chloride        | 0.8                              | --                  | 0.8 B         | 2           | --               |
|           |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|           |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|           |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|           |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|           |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2-Dichloroethane        | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|           |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|           |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|           |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|           |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 6/14/95     | 6/27/95       | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|           |             |               | Toluene                     | 0.5                              | --                  | ND            | 1,000       | --               |
|           |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|           |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|           |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|           |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|           |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 2-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,3,5-Trimethylbenzene      | 0.6                              | --                  | 0.6           | --          | --               |
|           |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|           |             |               | 1,2,4-Trimethylbenzene      | 1.1                              | --                  | 1.1           | --          | --               |
|           |             |               | sec-Butylbenzene            | 0.5                              | --                  | 0.5           | --          | --               |
|           |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|           |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|           |             |               | 4-Isopropyltoluene          | 0.5                              | --                  | 0.5           | --          | --               |
|           |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|           |             |               | n-Butylbenzene              | 0.6                              | --                  | 0.6           | --          | --               |
|           |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|           |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|           |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|           |             |               | Naphthalene                 | 0.5                              | --                  | ND            | 300         | --               |
|           |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, MW-3  
FORT MONMOUTH, NEW JERSEY  
VOLATILE TICS: (continued)

| Sample ID | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-----------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| MW-3      | 6/14/95     | 6/27/95       | VOLATILE TICS:              |                                  |                     |               |             |                  |
|           |             |               | Benzene,diethyl             | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,1-methyl-3-propyl   | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,(1-methylpropyl)    | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,2-ethyl-1,4-dimethy | --                               | --                  | 3 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |
|           |             |               | Benzene,1,2,3,5-tetramethyl | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Benzene,1,2,3,4-tetramethyl | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown Hydrocarbon         | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 2 J           | --          | --               |
|           |             |               | Unknown                     | --                               | --                  | 1 J           | --          | --               |
|           |             |               | TOTAL TICS:                 | --                               | --                  | 28            | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, TRIP BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID  | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| TRIP BLANK | 6/14/95     | 6/22/95       | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Chloromethane             | 1.9                              | --                  | 1.9           | 30          | --               |
|            |             |               | Bromomethane              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|            |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Methylene Chloride        | 1.8                              | --                  | 1.8 B         | 2           | --               |
|            |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|            |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|            |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|            |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|            |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dichloroethane        | 12                               | --                  | 12            | 2           | yes              |
|            |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|            |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|            |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|            |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|            |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, TRIP BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID  | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| TRIP BLANK | 6/14/95     | 6/22/95       | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|            |             |               | Toluene                     | 0.5                              | --                  | ND            | 1,000       | --               |
|            |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|            |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|            |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|            |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|            |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 2-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,3,5-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2,4-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | sec-Butylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|            |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|            |             |               | 4-Isopropyltoluene          | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|            |             |               | n-Butylbenzene              | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|            |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|            |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|            |             |               | Naphthalene                 | 0.5                              | --                  | ND            | 300         | --               |
|            |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |
|            |             |               | VOLATILE TICS:              |                                  |                     |               |             |                  |
|            |             |               | Ethane,1-bromo-2-chloro     | --                               | --                  | 4 J           | --          | --               |



TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES

| Sample ID   | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 6/14/95     | 6/23/95       | N-nitrosodimethylamine      | 2                                | --                  | ND            | 20          | --               |
|             |             |               | bis(2-Chloroethyl)Ether     | 1                                | --                  | ND            | 10          | --               |
|             |             |               | 1,3-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|             |             |               | 1,4-Dichlorobenzene         | 1                                | --                  | ND            | 75          | --               |
|             |             |               | 1,2-Dichlorobenzene         | 2                                | --                  | ND            | 600         | --               |
|             |             |               | bis(2-chloroisopropyl)ether | 5                                | --                  | ND            | --          | --               |
|             |             |               | N-Nitroso-Di-N-propylamine  | 2                                | --                  | ND            | 20          | --               |
|             |             |               | Hexachloroethane            | 1                                | --                  | ND            | 10          | --               |
|             |             |               | Nitrobenzene                | 2                                | --                  | ND            | 10          | --               |
|             |             |               | Isophorone                  | 1                                | --                  | ND            | 100         | --               |
|             |             |               | bis(2-Chloroethoxy)methane  | 3                                | --                  | ND            | --          | --               |
|             |             |               | 1,2,4-Trichlorobenzene      | 2                                | --                  | ND            | 9           | --               |
|             |             |               | Naphthalene                 | 2                                | --                  | ND            | 300         | --               |
|             |             |               | Hexachlorobutadiene         | 2                                | --                  | ND            | 1           | --               |
|             |             |               | Hexachlorocyclopentadiene   | 12                               | --                  | ND            | 50          | --               |
|             |             |               | 2-Chloronaphthalate         | 1                                | --                  | ND            | --          | --               |
|             |             |               | Dimethylphthalate           | 1                                | --                  | ND            | --          | --               |
|             |             |               | Acenaphthylene              | 5                                | --                  | ND            | NA          | --               |
|             |             |               | 2,6-Dinitrotoluene          | 2                                | --                  | ND            | NA          | --               |
|             |             |               | Acenaphthene                | 3                                | --                  | ND            | 400         | --               |
|             |             |               | 2,4-Dinitrotoluene          | 3                                | --                  | ND            | 10          | --               |
|             |             |               | Diethylphthalate            | 1                                | --                  | ND            | 5,000       | --               |
|             |             |               | Fluorene                    | 3                                | --                  | ND            | 300         | --               |
|             |             |               | 4-Chlorophenyl-phenylether  | 3                                | --                  | ND            | --          | --               |
|             |             |               | n-Nitrosodiphenylamine      | 6                                | --                  | ND            | 20          | --               |
|             |             |               | 1,2-Diphenylhydrazine(as az | 6                                | --                  | ND            | --          | --               |
|             |             |               | 4-Bromophenyl-phenylether   | 2                                | --                  | ND            | --          | --               |
|             |             |               | Hexachlorobenzene           | 2                                | --                  | ND            | 10          | --               |
|             |             |               | Phenanthrene                | 2                                | --                  | ND            | NA          | --               |
|             |             |               | Anthracene                  | 2                                | --                  | ND            | 2,000       | --               |
|             |             |               | Di-n-butylphthalate         | 5                                | --                  | ND            | 900         | --               |
|             |             |               | Fluoranthene                | 1                                | --                  | ND            | 300         | --               |
|             |             |               | Benzidine                   | 1                                | --                  | ND            | 50          | --               |
|             |             |               | Pyrene                      | 2                                | --                  | ND            | 200         | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
SEMIVOLATILES (continued)

| Sample ID   | Sample Date | Analysis Date | Compound Name              | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 6/14/95     | 6/23/95       | Butylbenzylphthalate       | 9                                | --                  | ND            | --          | --               |
|             |             |               | Benzo(a)anthracene         | 2                                | --                  | ND            | 0.05        | --               |
|             |             |               | 3,3'-Dichlorobenzidine     | 15                               | --                  | ND            | 60          | --               |
|             |             |               | Chrysene                   | 2                                | --                  | ND            | 5           | --               |
|             |             |               | bis(2-Ethylhexyl)phthalate | 4                                | --                  | ND            | 30          | --               |
|             |             |               | Di-n-octylphthalate        | 2                                | --                  | ND            | 100         | --               |
|             |             |               | Benzo(b)fluoranthene       | 1                                | --                  | ND            | 0.05        | --               |
|             |             |               | Benzo(k)fluoranthene       | 2                                | --                  | ND            | 0.5         | --               |
|             |             |               | Benzo(a)pyrene             | 2                                | --                  | ND            | 0.005       | --               |
|             |             |               | Indeno(1,2,3-cd)pyrene     | 2                                | --                  | ND            | 0.05        | --               |
|             |             |               | Dibenz(a,h)anthracene      | 3                                | --                  | ND            | --          | --               |
|             |             |               | Benzo(g,h,i)perylene       | 2                                | --                  | ND            | NA          | --               |
|             |             |               | SEMIVOLATILE TICS:         |                                  |                     |               |             |                  |
|             |             |               | NONE FOUND                 | --                               | --                  | --            | --          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES

| Sample ID   | Sample Date | Analysis Date | Compound Name             | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|---------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 6/14/95     | 6/22/95       | Dichlorodifluoromethane   | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Chloromethane             | 1.1                              | --                  | 1.1           | 30          | --               |
|             |             |               | Bromomethane              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Vinyl Chloride            | 0.5                              | --                  | ND            | 5           | --               |
|             |             |               | Chloroethane              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Trichlorofluoromethane    | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Methylene Chloride        | 1.6                              | --                  | 1.6           | 2           | --               |
|             |             |               | trans,1,2-Dichloroethene  | 0.5                              | --                  | ND            | 100         | --               |
|             |             |               | 1,1-Dichloroethene        | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | 1,1-Dichloroethane        | 0.5                              | --                  | ND            | 70          | --               |
|             |             |               | 2,2-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Bromochloromethane        | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | cis-1,2-Dichloroethene    | 0.5                              | --                  | ND            | 10          | --               |
|             |             |               | Chloroform                | 0.5                              | --                  | ND            | 6           | --               |
|             |             |               | 1,1-Dichloropropene       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dichloroethane        | 11                               | --                  | 11            | 2           | yes              |
|             |             |               | 1,1,1-Trichloroethane     | 0.5                              | --                  | ND            | 30          | --               |
|             |             |               | Dibromomethane            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Carbon Tetrachloride      | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | Bromodichloromethane      | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | 1,2-Dichloropropane       | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | cis-1,3-Dichloropropene   | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | 1,3-Dichloropropane       | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Trichloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | Dibromochloromethane      | 0.5                              | --                  | ND            | 10          | --               |
|             |             |               | 1,1,2-Trichloroethane     | 0.5                              | --                  | ND            | 3           | --               |
|             |             |               | Benzene                   | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | trans-1,3-Dichloropropene | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | Bromoform                 | 0.5                              | --                  | ND            | 4           | --               |
|             |             |               | 1,1,1,2-Tetrachloroethane | 0.5                              | --                  | ND            | 10          | --               |

TABLE 4  
GROUNDWATER SAMPLING RESULTS  
BUILDING 2000, MAIN POST, FIELD BLANK  
FORT MONMOUTH, NEW JERSEY  
VOLATILES (continued)

| Sample ID   | Sample Date | Analysis Date | Compound Name               | Sample Quantitation Limit (ug/l) | Compound of Concern | Result (ug/l) | GWQS (ug/l) | Exceeds Criteria |
|-------------|-------------|---------------|-----------------------------|----------------------------------|---------------------|---------------|-------------|------------------|
| FIELD BLANK | 6/14/95     | 6/22/95       | Tetrachloroethene           | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | 1,1,2,2-Tetrachloroethane   | 0.5                              | --                  | ND            | 2           | --               |
|             |             |               | Toluene                     | 0.5                              | --                  | ND            | 1,000       | --               |
|             |             |               | 1,2-Dibromoethane           | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Chlorobenzene               | 0.5                              | --                  | ND            | 4           | --               |
|             |             |               | Ethylbenzene                | 0.5                              | --                  | ND            | 700         | --               |
|             |             |               | Xylene (total)              | 0.5                              | --                  | ND            | 40          | --               |
|             |             |               | Styrene                     | 0.5                              | --                  | ND            | 100         | --               |
|             |             |               | Isopropylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | Bromobenzene                | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2,3-Trichloropropane      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | n-Propylbenzene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 2-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 4-Chlorotoluene             | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,3,5-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | tert-Butylbenzene           | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2,4-Trimethylbenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | sec-Butylbenzene            | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,3-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|             |             |               | 1,4-Dichlorobenzene         | 0.5                              | --                  | ND            | 75          | --               |
|             |             |               | 4-Isopropyltoluene          | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dichlorobenzene         | 0.5                              | --                  | ND            | 600         | --               |
|             |             |               | n-Butylbenzene              | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | 1,2-Dibromo-3-chloropropane | 0.5                              | --                  | ND            | NA          | --               |
|             |             |               | 1,2,4-Trichlorobenzene      | 0.5                              | --                  | ND            | 9           | --               |
|             |             |               | Hexachlorobutadiene         | 0.5                              | --                  | ND            | 1           | --               |
|             |             |               | Naphthalene                 | 0.5                              | --                  | ND            | 300         | --               |
|             |             |               | 1,2,3-Trichlorobenzene      | 0.5                              | --                  | ND            | --          | --               |
|             |             |               | VOLATILE TICS:              |                                  |                     |               |             |                  |
|             |             |               | Ethane, 1-bromo-2-chloro    | --                               | --                  | 4 J           | --          | --               |

TABLE 4

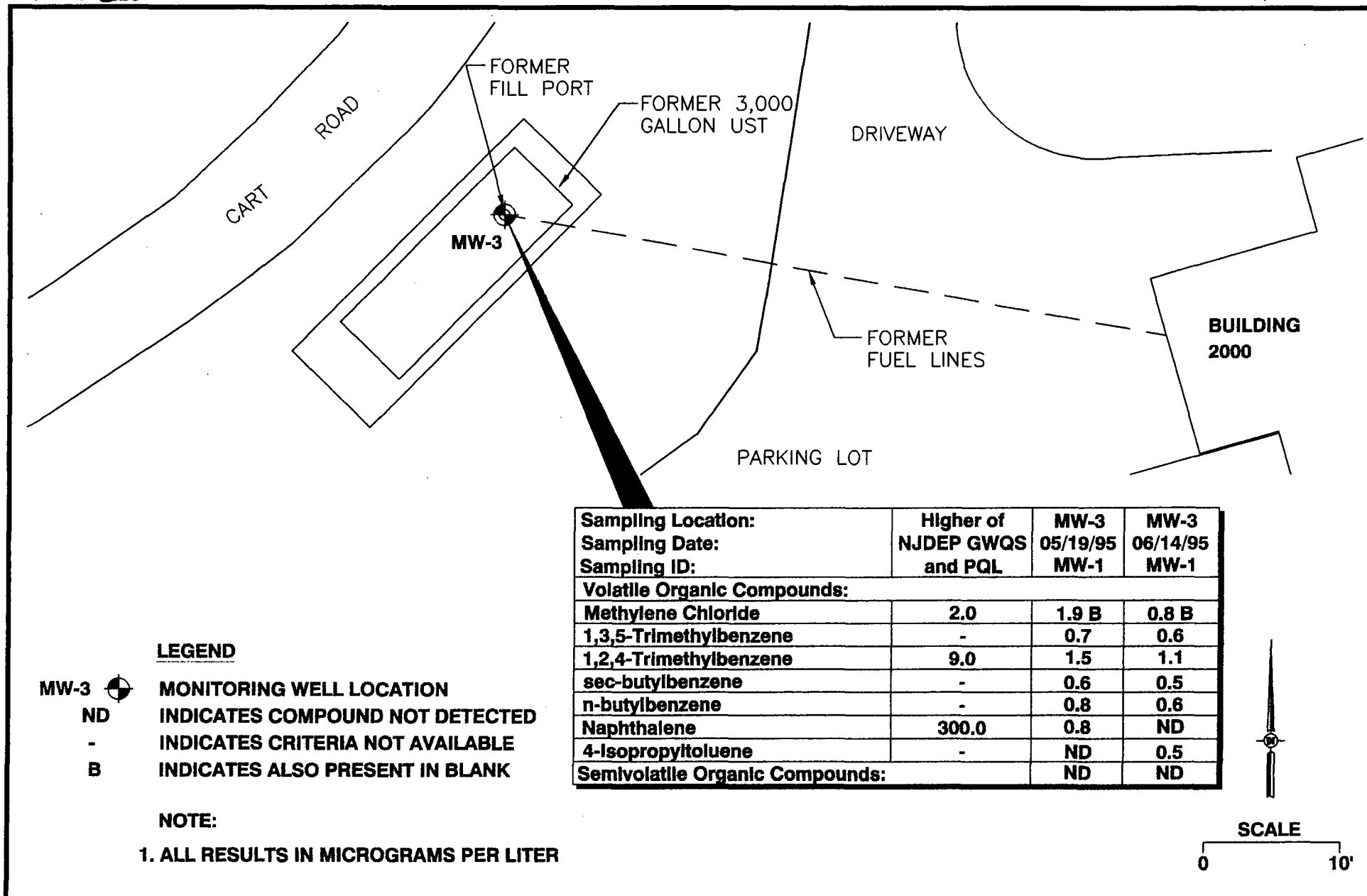
DATA ANALYSIS QUALIFIER DEFINITIONS  
GROUNDWATER SAMPLING  
FORT MONMOUTH, NEW JERSEY

|       |                                                    |
|-------|----------------------------------------------------|
| --:   | Not applicable / does not exceed criteria          |
| (J):  | Indicates detected below sample quantitation limit |
| (B):  | Indicates also present in blank                    |
| (ND): | Indicates compound not detected                    |
| (NA): | Not available for this constituent                 |
| GWQS: | Groundwater Quality Standards                      |



A Division of

U.S. Army  
Department of Public Works  
Fort Monmouth, New Jersey



**APPENDIX A**

**NJDEP BUST CLOSURE APPROVAL**

# UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL  
PROTECTION AND ENERGY

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION  
BUREAU OF UNDERGROUND STORAGE TANKS  
CN-029, TRENTON, NJ 08625-0029

TMS #

UST #

C-93-3884

0192486

US Army  
BLDG. 2000  
Ft. Monmouth, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM  
THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et. seq.:

Removal of: one <sup>3000</sup>~~2,000~~ gallon #2 diesel UST(s) and appurtenant  
piping.

SITE ASSESSMENT: Soil samples will be taken every five (5) feet  
along the center line of each tank and one (1) soil sample for  
every 15 feet along all associated piping. Two (2) additional  
samples will be taken from around the tank and biased to the areas  
of highest field screened readings. Samples will be analyzed for  
TPHC. If sample results are greater than 1,000ppm than 25% of the  
samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby

TELEPHONE: 908-532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE: SEP 07 1993

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED  
ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.



KEVIN F. KRATINA, BUREAU CHIEF  
BUREAU OF UNDERGROUND STORAGE TANKS



## APPENDIX B

## CERTIFICATIONS

**UNDERGROUND STORAGE TANK (UST)**  
**CLOSURE CERTIFICATION**

BUILDING NO. 2000

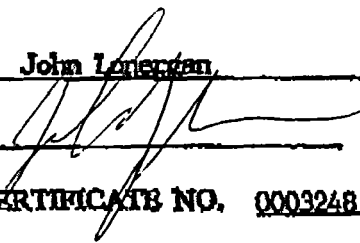
NIDEP UST REGISTRATION NO. 192486-1

DATE TANK REMOVED 5/17/94

UO / CONTRACT NUMBER 91-0148

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.

NAME (Print or Type) John Loneragan

SIGNATURE 

NIDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc

NIDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 6/10/94

**APPENDIX C**

**WASTE MANIFEST**

JUN-7-94 TUE 13:34

C. U. T. E.

FAX NO. 201 423 6050

P. 25



FREEHOLD CARIAGE, INC.

P.O. BOX 5010  
FREEHOLD, NJ 07728-5010  
PHONE: (908) 482-1001  
FAX: (908) 308-0824

175 BARTOW MUN. AIRPORT  
BARTOW, FL 33839  
PHONE: (813) 533-4539  
FAX: (813) 533-1818

108 MONAHAN AVENUE  
DUNMORE, PA 15122  
PHONE: (717) 342-7222  
FAX: (717) 342-7357

MANIFEST

FCI EPA ID NO.:  
NJD054128184

G 52826

## STATE MANIFEST NO.:

| (X)<br>HM | PROPER U.S. DOT SHIPPING NAME | U.S. DOT HAZARDOUS CLASS | PACKING<br>GROUP | NAUN NO. | FORM | NET QTY. | UNIT<br>MEASURE |
|-----------|-------------------------------|--------------------------|------------------|----------|------|----------|-----------------|
| 1         | NON-HAZARDOUS<br>WASTE-WATER  | N/A                      | N/A              | N/A      | Liq. | 5291     | G               |
| 2         |                               |                          |                  |          |      |          |                 |
| 3         |                               |                          |                  |          |      |          |                 |

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

OLW-1905

REL-

NJDEP 15939-23520

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |                                                                 |                  |                                                                                                           |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------|--|
| GENERATOR NAME/ADDRESS<br>U.S. ARMY COMMUNICATIONS<br>ELECTRONIC COMMAND<br>FORT MONMOUTH, NJ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  | PHONE<br>(908) 530-6224<br>TRACTOR<br>63<br>TRAILER<br>314      |                  | GENERATOR EPA ID NO.<br>TIME AT GENERATOR (MILITARY TIME ONLY)<br>14:30<br>ARRIVAL TIME<br>DEPARTURE TIME |  |
| FCI REP. LOADING (PRINT)<br>David Smith                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PROCEDURE<br>VAC | BOX SPOTTED<br>X                                                | BOX REMOVED<br>X | EQUIPMENT USED<br>Bldg 2300 0012486-1<br>1590 gals<br>Bldg 2337-001575-65<br>3701 gallons                 |  |
| COMMENTS OR DELAYS AT GENERATOR<br>E. I. DUBONT COMPANY, INC.<br>M. 21 June 2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |                                                                 |                  |                                                                                                           |  |
| <p>GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transporter named. The Transporter, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.</p> <p>Payment to the contractor for waste removed does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.</p> |                  |                                                                 |                  |                                                                                                           |  |
| GENERATOR'S SIGNATURE<br>X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | PLEASE PRINT NAME/TITLE<br>Charles M. Applegate, Sr. Asst. Dir. |                  | DATE LOADED<br>5/31/94<br>MO. DAY YR.                                                                     |  |

|                                                                                            |           |                                               |             |                                                                                                               |  |
|--------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------|--|
| TSDF NAME/ADDRESS<br>E. I. DUBONT COMPANY<br>CHAMBERS WORKS RT #130<br>DEERWATER, NJ 08023 |           | PHONE<br>(609) 540-2773<br>TRACTOR<br>TRAILER |             | TSDF EPA ID NO.<br>NJ D 010 023 815730<br>TIME AT TSDF (MILITARY TIME ONLY)<br>ARRIVAL TIME<br>DEPARTURE TIME |  |
| FCI REP. UNLOADING (PRINT)<br>X                                                            | PROCEDURE | BOX SPOTTED                                   | BOX REMOVED | EQUIPMENT USED                                                                                                |  |
| COMMENTS OR DELAYS AT TSDF<br>X                                                            |           |                                               |             |                                                                                                               |  |
| TSDF SIGNATURE<br>X                                                                        |           | PLEASE PRINT NAME/TITLE                       |             | DATE UNLOADED<br>MO. DAY YR.                                                                                  |  |

AR H-0257  
FC 844  
GT GT-HW-307  
DE DE-HW-203  
DE-SW-203  
L SW-H-1340

ME ME-HWT-47  
ME-VIC-47  
MO HW-H-167  
91-CP-1705  
MA MA-284  
MN S1572

MO H-1490  
NO WH-429  
NH TWH-0047  
NJ S-2266  
13805  
NY JA-113

NOVA SCOTIA, CANADA NSC 000 147  
ON 333-HW  
ON 333B  
ONTARIO, CANADA A 840818  
PA PA-HH-0057

QUEBEC, CANADA QC-8ML-047  
RI RI-536  
TX 40705  
WI 11602

Original - FCI Office Copy  
Yellow - FCI Office Copy  
Blue - FCI Office Copy/Customs  
Green - Retained by TSDF  
Gold - Retained by Generator

G 52826



State of New Jersey  
Department of Environmental Protection and Energy  
Hazardous Waste Regulation Program  
Manifest Section  
CN 028, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on all 12-pitch typewriter.)

Form Approved, OMB No. 2050-0033, Expires 9-30-94

|                                                                                                                                                                                                       |  |                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                       |  |                                                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------|--|-----------------------------------------------------------------|--|
| <b>UNIFORM HAZARDOUS WASTE MANIFEST</b>                                                                                                                                                               |  | 1. Generator's US EPA ID No.<br>NJ 2210102097803793 |  | Manifest Document No.<br>03793                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 2. Page 1 of 1                        |  | Information in the shaded areas is not required by Federal law. |  |
| 3. Generator's Name and Mailing Address<br>US Army Communications Electronics Command<br>Charles Wood Area, c/o James Shirghio, Bldg 2504<br>ATTN: SELF-DI-EM-MS, Fort Monmouth, NJ 07703             |  |                                                     |  | 4. State Generator's ID<br>NJ 1603193                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                       |  |                                                                 |  |
| 4. Generator's Phone (908) 532-6223                                                                                                                                                                   |  |                                                     |  | 5. State Generator's ID<br>SAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                       |  |                                                                 |  |
| 5. Transporter 1 Company Name<br>Freehold Cartage, Inc.                                                                                                                                               |  |                                                     |  | 6. US EPA ID Number<br>NJ D 054112611614                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | 7. State Trans. ID<br>NJDEPE 52265    |  |                                                                 |  |
| 7. Transporter 2 Company Name                                                                                                                                                                         |  |                                                     |  | 8. US EPA ID Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | 9. Transporter's Phone (908) 462-1001 |  |                                                                 |  |
| 9. Designated Facility Name and Site Address<br>Lionetti Oil Recovery, Co., Inc.<br>Runyon & Cheesequake Rds.<br>Old Bridge, NJ 08857                                                                 |  |                                                     |  | 10. US EPA ID Number<br>NJ D 084044101614                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 11. Facility's Phone (908) 721-0900   |  |                                                                 |  |
| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID No.)                                                                                                                     |  |                                                     |  | 12. Containers<br>No. 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | 13. Total Quantity<br>523 G           |  | 14. Waste No.                                                   |  |
| X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil)<br>Combustible Liquid UN 1270 PG III                                                                                                                  |  |                                                     |  | XX 523 G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | X 7.22                                |  |                                                                 |  |
| X Petroleum Oil, N.O.S. Class 3<br>Combustible Liquid UN 1270 PG III                                                                                                                                  |  |                                                     |  | 00 TT XX 2.22 G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | X 7.22                                |  |                                                                 |  |
| X Petroleum Oil, N.O.S. Class 3<br>Combustible Liquid UN 1270 PG III                                                                                                                                  |  |                                                     |  | 00 TT XX 7.75 G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | X 7.22                                |  |                                                                 |  |
| X Petroleum Oil, N.O.S. Class 3<br>Combustible Liquid UN 1270 PG III                                                                                                                                  |  |                                                     |  | 00 TT XX 5.72 G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | X 7.22                                |  |                                                                 |  |
| 15. Additional Descriptions for Wastes Listed Above<br>Petroleum Oil 95% Water 5% LT Water 50% LT T04 Filtration T04 Filtration                                                                       |  |                                                     |  | 16. Handling Codes for Wastes Listed Above<br>T04 Filtration T04 Filtration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                       |  |                                                                 |  |
| 17. Special Handling Instructions and Additional Information<br>NOT EPA REGULATED. REGULATED AS HAZARDOUS WASTE IN NJ. 11a. ERG #27 Bldg.<br>24 HOUR EMERGENCY PHONE: 201-427-2881<br>NJ DECAL# 55182 |  |                                                     |  | 18. Generator's Certification<br>I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.<br>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to maximize my waste generation and select the best waste management method that is available to me and that I can afford. |  |                                       |  |                                                                 |  |
| Printed/Typed Name<br>Joseph M. Fallon                                                                                                                                                                |  |                                                     |  | Signature<br>Joseph M. Fallon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | Month Day Year<br>05/12/94            |  |                                                                 |  |
| 17. Transporter 1 Acknowledgment of Receipt of Materials<br>Printed/Typed Name<br>David S. Smith                                                                                                      |  |                                                     |  | Signature<br>David S. Smith                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Month Day Year<br>05/12/94            |  |                                                                 |  |
| 18. Transporter 2 Acknowledgment of Receipt of Materials<br>Printed/Typed Name                                                                                                                        |  |                                                     |  | Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Month Day Year                        |  |                                                                 |  |
| 19. Emergency Contact Space                                                                                                                                                                           |  |                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                       |  |                                                                 |  |
| 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 18.<br>Printed/Typed Name                                             |  |                                                     |  | Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Month Day Year                        |  |                                                                 |  |

EPA Form 3570-22, Rev. 7/93, Hazardous Waste Manifest

1 - TSD MAIL TO - TSD'S STATE

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

# UNDERGROUND STORAGE TANK REMOVAL (UST)

(Submit one form for each tank)

Building No. 2000 NJDEPE UST Reg. No. 00192486 - 1

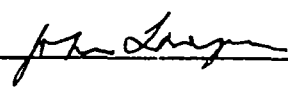
IJO No. 91-0148 Date Tank Removed 5/17/94

| ITEM NO.          | ITEM OF WORK                                                    | UNIT | UNIT PRICE | QUANTITY | TOTAL PRICE |
|-------------------|-----------------------------------------------------------------|------|------------|----------|-------------|
| 01100-1.1         | Rmv ID#27 soil to stockpile                                     | TN   | \$14.50    | 137.20   | \$ 1,989.40 |
| 01100-1.2         | Supply, fill & relocate 55 Gal containers to storage            | CT   | \$47.50    | 1        | \$ 47.50    |
| 01100-1.4         | Rmv & dispose of #2 fuel mixed with water<br>Manifest #:NJA     | GL   | \$ 0.69    | 2365     | \$ 1,631.85 |
| 01100-1.5         | Rmv & dispose of #2 fuel mixed with solvent<br>Manifest #:NJA   | GL   | \$ 4.50    |          | \$ N/A      |
| 01100-1.6         | Rmv & dispose of diesel fuel                                    | GL   | \$ 0.69    |          | \$ N/A      |
| 01100-1.7         | Rmv & dispose of diesel fuel mixed with water<br>Manifest #:NJA | GL   | \$ 0.69    |          | \$ N/A      |
| 02050-1 & 02050-4 | Tank removal                                                    | GL   | \$ 0.975   | 3000     | \$ 2,925.00 |
| 02050-5.1         | Sawcut blacktop *                                               | TN   | \$27.50    |          | \$ N/A      |
| 02050-5.2         | Sawcut concrete *                                               | TN   | \$29.50    |          | \$ N/A      |
| 02050-5.3         | Sawcut reinforced concrete                                      | TN   | \$32.50    |          | \$ N/A      |
| 02222-1.1         | Backfill cert. clean fill *                                     | TN   | \$16.25    | 110.34   | \$ 1,793.03 |
| 02222-1.2         | 3/4" clean stone *                                              | TN   | \$17.50    | 26.85    | \$ 469.88   |
| 02511-1.1         | Concrete slab 4" thick                                          | SY   | \$19.80    |          | \$ N/A      |
| 02511-1.2         | Concrete slab 6" thick                                          | SY   | \$21.80    |          | \$ N/A      |
| 02511-1.3         | Concrete slab 8" thick                                          | SY   | \$24.50    |          | \$ N/A      |
| 02511-1.4         | 6" Concrete curb                                                | LF   | \$16.00    |          | \$ N/A      |
| 02551-1.1         | 6" Base course of 3/4" dirty blend stone                        | SY   | \$ 6.40    |          | \$ N/A      |
| 02551-1.2         | 4" stabilized base                                              | SY   | 8.00       |          | \$ N/A      |
| 02551-1.3         | 2" top course                                                   | SY   | \$ 5.50    |          | \$ N/A      |
| 02935-1.1         | 4" top soil & sod                                               | SY   | \$ 7.80    |          | \$ N/A      |
| 02935-1.2         | 4" top soil & hydroseed                                         | SY   | \$ 5.40    | 160      | \$ 864.00   |

\* Supply certified weight tickets to Contracting Officer at time of request for payment.

\$ 9,720.66

I certify under penalty of law that tank decommissioning activities were performed in compliance with NJAC 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

NAME (Print or Type): John Lonergan SIGNATURE: 

NJDEPE UST Closure Cert. #: 0003248 DATE: June 9, 1994

COMPANY NAME: CUTE, Inc.  
(Performer of Tank Decommissioning)

NJDEPE UST Closure Corp. Cert. #: 0200128

List of Abbreviations:

CT = 55 Gallon Container GL = Gallon TN = Tons

# CALCULATION SHEET

Building No. 2000

NJDEPE Reg. No. 00192486-1

Tank Size 3000 gal

Tank Void 22.5 tons

## CLEAN FILL

| ITEM NO.  | DESCRIPTION | QUANTITY | TICKET # |
|-----------|-------------|----------|----------|
| 02222-1.1 | clean fill  | 21.35    | 18701    |
| "         | "           | 22.6     | 18703    |
| "         | "           | 22.63    | 18705    |
| "         | "           | 22.65    | 18721    |
| "         | "           | 22.06    | 18788    |
| "         | "           | 21.55    | 18789    |

TOTAL 132.84

## STONE

| ITEM NO.  | DESCRIPTION | QUANTITY | TICKET # |
|-----------|-------------|----------|----------|
| 02222-1.2 | 3/4" stone  | 26.85    | 930772   |

TOTAL 26.85

ID#27 soil to stockpile  $(132.84 + 26.85) - 22.5 = 137.19$  tons

Chargeable clean fill  $132.84 - 22.5 = 110.34$

Chargeable stone 26.85



1453 W. Park Ave., Wayside  
Asbury Park, N.J. 07712  
808-493-3333

18701

Order Date June 1, 1994Deliver Date 1/1/Delivered ☐ C.O.D. ☐F.O.B./P.U. ☐ Charge ☒Name Big A TruckingAddress CLAN FILL

| Item(s) | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit<br>Price | Total |
|---------|-----------------------------------------------|---------------|-------|
|         | TS 68700                                      |               |       |
|         | T 26000                                       | 21.35 t       |       |
|         | N 42700                                       |               |       |

Driver \_\_\_\_\_

Received CO \_\_\_\_\_

\* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel with travel!  
since 1925

Sub Total

Delivery

N.J. Tax

Total





1463 W. Park Ave., Wayside  
Asbury Park, N.J. 07712  
808-488-3333

18703

Order Date June 1, 94Deliver Date 1-1Delivered ☐ C.O.D. ☐F.O.B./P.U. ☐ Charge ☒Name Big A TruckingAddress CIAN FILL

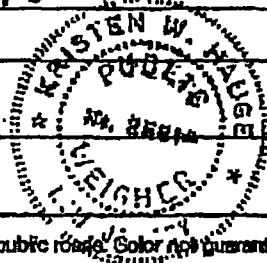
| Item(s) | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit<br>Price | Total |
|---------|-----------------------------------------------|---------------|-------|
|         | G 71200                                       |               |       |
|         | T 24000                                       | 22.6 tons     |       |
|         | N 45200                                       |               |       |

Driver \_\_\_\_\_

Received [Signature]

\* Company not responsible for damage done off public roads. Color not guaranteed.

*Have gravel with gravel  
since 1925*



Sub Total

Delivery

N.J. Tax

Total



Joseph Scavino Sand & Gravel Co.

1453 W. Park Ave., Wayside  
Asbury Park, N.J. 07712  
908-493-3333

18705

Order Date June 1, 1994

Deliver Date 1/1

Name Big A Trucking

Address Clean Fill

Delivered ☐ C.O.D. ☐

FOB/P.U. ☐ Charge ☒

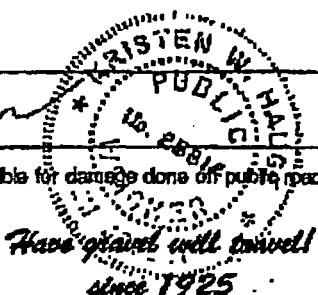
Go 11 Course # A-10

| Item(s) | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit Price | Total |
|---------|-----------------------------------------------|------------|-------|
| G       | 712.50                                        |            |       |
| T       | 264.50                                        | 22.63 tons |       |
| N       | 452.50                                        |            |       |

Driver \_\_\_\_\_

Received \_\_\_\_\_

\* Company not responsible for damage done on public roads. Color not guaranteed!



Sub Total

Delivery

N.J. Tax

Total



Joseph Scarano Sand &amp; Gravel Co.

1453 W. Park Ave., Wayside  
Asbury Park, N.J. 07712  
908-493-3333

18721

Order Date

June 1, 1994

Deliver Date

June 1, 1994

Delivered ☐C.O.D. ☐F.O.B./P.U. ☐Charge ☒

Name

Address

| Item(s) | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit<br>Price | Total |
|---------|-----------------------------------------------|---------------|-------|
|         | 21,000                                        |               |       |
|         | 2,000                                         | 22.65         |       |
|         | 14,520                                        |               |       |

Driver

Received

\* Company not responsible for damage done off public roads. Door not guaranteed!

Sub Total

Delivery

N.J. Tax

Total

Have gravel with gravel  
since 1988



1453 W. Park Ave., Weyside  
Asbury Park, N.J. 07712  
808-493-3333

18788

Name

*Big A Trucking*

Address

*CW*

*CLAN Fill*

Order Date

*Jun 12, 94*

Deliver Date

*1/1*

Delivered ☐

C.O.D. ☐

F.O.B./P.U. ☐

Charge ☒

| Item(s)  | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit<br>Price     | Total |
|----------|-----------------------------------------------|-------------------|-------|
| <i>G</i> | <i>70 110</i>                                 |                   |       |
| <i>T</i> | <i>26 000</i>                                 | <i>22.06 tons</i> |       |
| <i>N</i> | <i>48 610</i>                                 |                   |       |
|          |                                               | Sub Total         |       |
|          |                                               | Delivery          |       |
|          |                                               | N.J. Tax          |       |
|          |                                               | Total             |       |

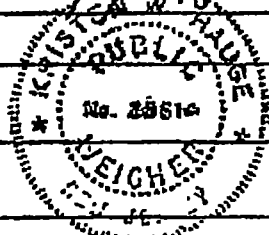
Driver

Received

*Off Road*

\* Company not responsible for damage done off public roads. Order not guaranteed!

*Have gravel will travel!*  
*since 1925*



P. 23

FAX NO. 201 423 6050

C.U.T.E.

JUN-7-94 TUE 13:33



1453 W. Park Ave., Wayside  
Asbury Park, N.J. 07712  
808-483-3333

18789

Order Date Jun. 1, 1994Deliver Date 1/1/1Delivered ☐ C.O.D. ☐F.O.B./P.U. ☐ Charge ☒Name Big A TruckingAddress C.W.Stan Fill

| Item(s) | Quantity / Measure<br>(tons, lbs., yds., ea.) | Unit<br>Price | Total |
|---------|-----------------------------------------------|---------------|-------|
|         | G 69100                                       |               |       |
|         | T 26000                                       | 21.55 tons    |       |
|         | N 43400                                       |               |       |

Driver \_\_\_\_\_

Received Carl Tond-

\* Company not responsible for damage done off public roads. Call not guaranteed!

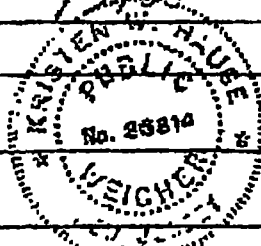
*Have gravel with gravel!*  
*since 1925*

Sub Total

Delivery

N.J. Tax

Total



S.C.N.I. - BOUND BROOK



CUSTOMER'S COPY

CONTROL NO.

A-930772

# Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 908/866-5700

X

DRIVER'S SIGNATURE

RECEIVED &amp; ACCEPTED BY:

CUSTOMER'S SIGNATURE

## EXECUTIVE OFFICE

HAMILTON ROAD  
TINTON FALLS, N.J.  
908/542-2328

CRUSHED STONE • SAND

• GRAVEL

## ADDRESS REPLY TO

P.O. BOX 482  
RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

## EXPLANATION OF DELIVERY CODES

- 1 - F.O.B.
- 2 - DELIVERED
- 3 - NET DELIVERED

|                             |                          |            |                   |                   |          |               |           |
|-----------------------------|--------------------------|------------|-------------------|-------------------|----------|---------------|-----------|
| DATE                        | 05/27/94                 | CUST. NO.  | 09888             | JOB NO.           | 10139    | TICKET NO.    | 930772    |
| CUSTOMER                    |                          |            |                   | DELIVER TO        |          | ZONE          |           |
| CLEANING UP THE ENVIRONMENT |                          |            |                   | ZONE: FT MONMOUTH |          | GROSS         |           |
| 103 BODWIN AVE.             |                          |            |                   | BLDG 296          |          | 40.35         |           |
| P.O. BOX 237                |                          |            |                   |                   |          | TARE          |           |
| MIDLAND PARK NJ 07432       |                          |            |                   |                   |          | 13.50         |           |
|                             |                          |            |                   |                   |          | NET           |           |
|                             |                          |            |                   |                   |          | 26.85         |           |
| TRUCKER                     | TRUCK NO.                | DRIVER NO. | METHOD OF PAYMENT |                   |          | DELIVERY CODE | ZONE      |
| 58493                       | 1                        |            | CHARGE            |                   |          | 2             | 030       |
| QUANTITY                    | PRODUCT CODE/DESCRIPTION |            | UNIT OF MEASURE   | UNIT PRICE        | EXTENDED | FREIGHT       | SALES TAX |
| 26.85                       | 13 3/4 INCH CLEAN S      |            | T                 |                   |          | 4.35          |           |
| COMMENTS                    |                          |            |                   |                   |          | WAIT TIME     |           |
| LOADS                       |                          |            |                   |                   |          | GRANT TOTAL   |           |
| 2                           |                          |            |                   |                   |          |               |           |
| ACCU. YONS                  |                          |            |                   |                   |          |               |           |
| 52.72                       |                          |            |                   |                   |          |               |           |

P.27

FAX NO. 201 423 6050

C.U.T.E.

JUN-7-94 TUE 13:35

**APPENDIX D**

**UST DISPOSAL CERTIFICATE**

Fort MonmouthBldg 2000-00192486-1Bldg 2067 - No closure & available**MAZZA & SONS, INC.**

Metal Recyclers  
Auto and Truck  
3230 Shatto Rd.  
Tinton Falls, NJ  
(908) 922-9292

NO. \_\_\_\_\_

DATE 18 May 94

Customer's Name

Cute Inc

Address \_\_\_\_\_

Make of  
Autos

\_\_\_\_\_

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- 92160 LB 6

39780 LB 6

3380
Bldg 2000-00192486-1  
Bldg 2067 No closure

Tires

Tank

Price:

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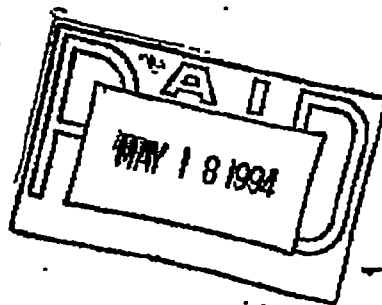
\_\_\_\_\_

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Weigher \_\_\_\_\_

Customer

Don Ellis

Weight Price

Cast Iron

Steel

L.I. Iron

Copper #1

Copper #2

L.I. Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

TOTAL AMOUNT:



**APPENDIX E**

**MONITORING WELL PERMIT AND CONSTRUCTION LOG**

SERIAL # 41111

WR-133M (10/93)

**STATE OF NEW JERSEY**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY  
TRENTON, NJ

Mail to

NJDEPE  
Bureau Water Allocation  
N426  
Trenton, NJ 08625

**MONITORING WELL PERMIT**

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

Permit No. 2931777COORD # 29.13657

Owner US Army - Fort Monmouth  
Address SELEM PW-EV  
Fort Monmouth, New Jersey  
Name of Facility Bldg 2000  
Address 1000 Wood  
Fort Monmouth, New Jersey

Driller Tyco Organization, Ltd  
Address 1350 US Hwy 130  
Livingston, New Jersey 07036

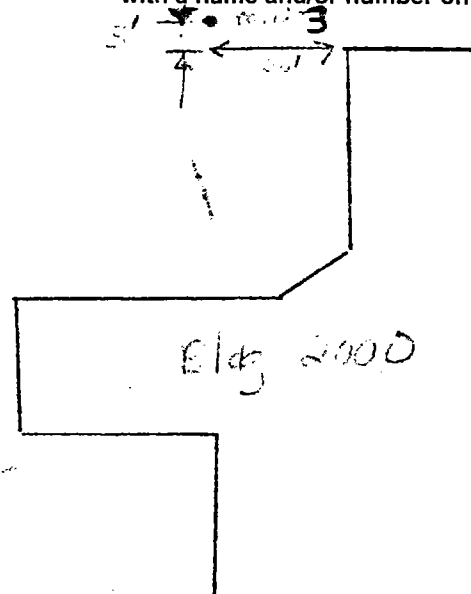
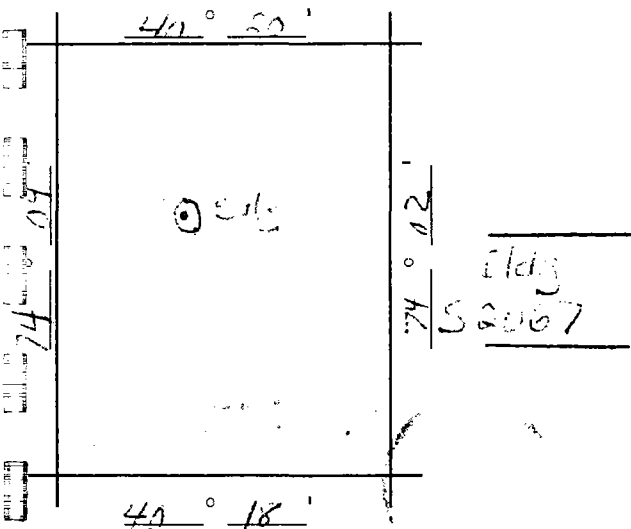
|                                              |                                                                                                          |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Diameter of Well(s) <u>4</u> Inches          | Proposed Depth of Well(s) <u>15</u> Feet                                                                 |
| # of Wells Applied for (max. 10) <u>1</u>    | Will pumping equipment be installed? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| Type of Well (see reverse) <u>Monitoring</u> | If Yes, give pump capacity <u>N/A</u> GPM                                                                |

**LOCATION OF WELL(S)**

|       |         |                      |                   |
|-------|---------|----------------------|-------------------|
| Lot # | Block # | Municipality         | County            |
|       |         | <u>Fort Monmouth</u> | <u>New Jersey</u> |

State Atlas Map No. 21

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site  
☐ ISRA Site  
☐ CERCLA (Superfund) Site  
☐ RCRA Site  
☒ Underground Storage Tank Site  
☐ Operational Ground Water Permit Site  
☐ Pretreatment and Residuals Site  
☐ Water and Hazardous Waste Enforcement Case  
☐ Water Supply Aquifer Test Observation Well  
☐ Other (explain) \_\_\_\_\_

CASE I.D. Number

N/A  
94-5-18-0936-36  
(Site Bldg. 2007)

This Space for Approval Stamp

WELL PERMIT APPROVED  
NJDEP

AUG 3 1994

BUREAU OF WATER ALLOCATION

**FOR D.E.P.E. USE**  
☐ Issuance of this permit is subject to the conditions attached. (see next page)  
☒ For monitoring purposes only

☒ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 7-25-94Signature of Driller [Signature]License # 1421Signature of Owner [Signature]

SELEM-PW-EV

COPIES:

Water Allocation — White and Pink

Health Dept. — Yellow

Owner — Blue

Driller — White



U.S. ARMY  
FORT MONMOUTH  
SELF PW EV

# LOG OF BORING 2000-MW3

(Page 1 of 1)

## Mainpost Well Logs

Project Name : BLDG. 2000  
NJDEP CASE # : 94-5-18-0936-36  
Logged By : TYREE INC.  
start date : 10/05/94

Completion Date : 10/05/94  
NORTHING : N 535555.828  
EASTING : E 2165389.680  
Driller : M. BECK

| Depth<br>in<br>Feet | 29-31777<br>ELEV: 36.56 | DESCRIPTION                                                     | GRAPHIC | USCS | Samples | Blows/Ft | %<br>Rec-<br>overy | Well Construction<br>Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------|-------------------------|-----------------------------------------------------------------|---------|------|---------|----------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0                   |                         | Grassy area/topsoil                                             |         |      |         |          |                    | <b>WELL CONSTRUCTION</b><br>Date Compl. : 9/23/94<br>Hole Diameter : 8 in<br>Drill. Method : HSA<br>Company Rep. : M. BECK<br><b>WELL CASING</b><br>Material : PVC<br>Diameter : 4 in.<br>Joints : threaded<br><b>WELL SCREEN</b><br>Material : PVC<br>Diameter : 4 in.<br>Joints : threaded<br>Opening : 20 slot<br><b>SAND PACK</b> : #2 MORIE SAND<br><b>ANNULUS SEAL</b> : Bentonite/Portland<br>TREMMIE<br><b>WELL SCREEN</b><br>Material : PVC<br>Diameter : 4 in.<br>Cap :<br><br><b>NOTES</b><br>Well #1 is 2000 MW3 |
| 1                   |                         | Brown fine sands and silts                                      |         | SM   |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2                   |                         | Light brown medium stiff clay                                   |         | CL   |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4                   |                         | Brown fine-medium sand with black fines                         |         | SP   | 1       | 12       | 100                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6                   |                         | Greenish-gray, soft clay with light brown fine sand and silts   |         | CL   | 2       | 10       | 83                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 8                   |                         | Dark brown silts with light brown soft clay. Moist at approx 6' |         | CL   |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10                  |                         |                                                                 |         |      |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12                  |                         | Light brown soft clay                                           |         | CL   |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14                  |                         |                                                                 |         |      |         |          |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Well Permit No. 10-1000  
Atlas Sheet Coordinates 10 10 10

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 3000 MW-11 S  
County 11 21 5 11 Municipality 11 21 5 11 Lot No. 11 21 5 11 Block No. 11 21 5 11  
Address 11 21 5 11

TYPE OF WELL (as per Well Permit Categories) \_\_\_\_\_ Date well completed \_\_\_\_\_  
Regulatory Program Requiring Well \_\_\_\_\_ Case I.D. # \_\_\_\_\_  
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) \_\_\_\_\_ Tele. # \_\_\_\_\_

## Name of Drilling Company

0-6" Topsoil, vegetation  
6-21" Gravel, fine sand & silt  
21-31" Gravel, sand & silt  
3-51" Gravel, sand & silt  
51-61" Gravel, sand & silt  
61-71" Gravel, sand & silt  
71-81" Gravel, sand & silt  
81-91" Gravel, sand & silt  
91-101" Gravel, sand & silt  
101-111" Gravel, sand & silt  
111-121" Gravel, sand & silt  
121-131" Gravel, sand & silt  
131-141" Gravel, sand & silt  
141-151" Gravel, sand & silt  
151-161" Gravel, sand & silt  
161-171" Gravel, sand & silt  
171-181" Gravel, sand & silt  
181-191" Gravel, sand & silt  
191-201" Gravel, sand & silt  
201-211" Gravel, sand & silt  
211-221" Gravel, sand & silt  
221-231" Gravel, sand & silt  
231-241" Gravel, sand & silt  
241-251" Gravel, sand & silt  
251-261" Gravel, sand & silt  
261-271" Gravel, sand & silt  
271-281" Gravel, sand & silt  
281-291" Gravel, sand & silt  
291-301" Gravel, sand & silt  
301-311" Gravel, sand & silt  
311-321" Gravel, sand & silt  
321-331" Gravel, sand & silt  
331-341" Gravel, sand & silt  
341-351" Gravel, sand & silt  
351-361" Gravel, sand & silt  
361-371" Gravel, sand & silt  
371-381" Gravel, sand & silt  
381-391" Gravel, sand & silt  
391-401" Gravel, sand & silt  
401-411" Gravel, sand & silt  
411-421" Gravel, sand & silt  
421-431" Gravel, sand & silt  
431-441" Gravel, sand & silt  
441-451" Gravel, sand & silt  
451-461" Gravel, sand & silt  
461-471" Gravel, sand & silt  
471-481" Gravel, sand & silt  
481-491" Gravel, sand & silt  
491-501" Gravel, sand & silt  
501-511" Gravel, sand & silt  
511-521" Gravel, sand & silt  
521-531" Gravel, sand & silt  
531-541" Gravel, sand & silt  
541-551" Gravel, sand & silt  
551-561" Gravel, sand & silt  
561-571" Gravel, sand & silt  
571-581" Gravel, sand & silt  
581-591" Gravel, sand & silt  
591-601" Gravel, sand & silt  
601-611" Gravel, sand & silt  
611-621" Gravel, sand & silt  
621-631" Gravel, sand & silt  
631-641" Gravel, sand & silt  
641-651" Gravel, sand & silt  
651-661" Gravel, sand & silt  
661-671" Gravel, sand & silt  
671-681" Gravel, sand & silt  
681-691" Gravel, sand & silt  
691-701" Gravel, sand & silt  
701-711" Gravel, sand & silt  
711-721" Gravel, sand & silt  
721-731" Gravel, sand & silt  
731-741" Gravel, sand & silt  
741-751" Gravel, sand & silt  
751-761" Gravel, sand & silt  
761-771" Gravel, sand & silt  
771-781" Gravel, sand & silt  
781-791" Gravel, sand & silt  
791-801" Gravel, sand & silt  
801-811" Gravel, sand & silt  
811-821" Gravel, sand & silt  
821-831" Gravel, sand & silt  
831-841" Gravel, sand & silt  
841-851" Gravel, sand & silt  
851-861" Gravel, sand & silt  
861-871" Gravel, sand & silt  
871-881" Gravel, sand & silt  
881-891" Gravel, sand & silt  
891-901" Gravel, sand & silt  
901-911" Gravel, sand & silt  
911-921" Gravel, sand & silt  
921-931" Gravel, sand & silt  
931-941" Gravel, sand & silt  
941-951" Gravel, sand & silt  
951-961" Gravel, sand & silt  
961-971" Gravel, sand & silt  
971-981" Gravel, sand & silt  
981-991" Gravel, sand & silt  
991-1001" Gravel, sand & silt

**COPIES:** White & Green - DEPE    Canary - Driller    Pink - Owner    Goldenrod - Health Dept.

Name of Permittee: U.S. ARMY  
 Name of Facility: FORT MONMOUTH  
 Location: MONMOUTH COUNTY, NJ  
~~NJPDES~~ Number: 74-5-18-0936-36  
 Dicar

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:

This number must be permanently affixed to the well casing.

Longitude (to nearest second):

Latitude (to nearest second):

Elevation of Top of Inner Casing (cap off)  
 (one-hundredth of a foot):

Elevation of ground level (1/100th ft.)

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.)

Owners Well Number (As shown on application or plans):

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are  $0.05 \text{ ft} \times (\text{miles})^{1/2}$ . For sections less than 0.1 mile, let miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. Burgett  
 PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W. BURGETT  
 PROFESSIONAL LAND SURVEYOR'S NAME  
 (Please print or type)

31654  
 PROFESSIONAL LAND SURVEYOR'S LICENSE #

29-31777-

West 74°04'25.37"

North 40°18'07.70"

36.56

34.78

Source: BM CW-202

☒ 1927 ☐ 1983

Elev.:

BLDG. 2000 MW-3

SEAL

**APPENDIX F**

**SOIL ANALYTICAL DATA PACKAGE**

Report of Analysis  
U.S. Army, Fort Monmouth Environmental Laboratory  
NJDEPE Certification # 13461

Client: U.S. Army  
DPW, SELFM-PW-EV  
Bldg. 167  
Ft. Monmouth, NJ 07703

Lab. ID #: 1500.1-.7  
Sample Rec'd: 05/23/94  
Analysis Start: 05/23/94  
Analysis Comp: 05/23/94

Analysis: 418.1 screen  
Matrix: Soil  
Analyst: S. Hubbard  
Ext. Meth: Sonc.

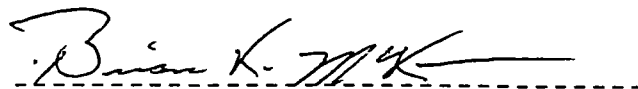
NJDEPE UST Reg.#: 00192486-1  
Closure #: C-93-3884  
DICAR #:  
Location #: BLDG. 2000

| Lab ID. | Description                      | %Solid | Result<br>(mg/Kg) | MDL |
|---------|----------------------------------|--------|-------------------|-----|
| 1500.1  | Site A, Sidewall 7.5-8' OVA= 50. | 76     | 15000.            | 69. |
| 1500.2  | Site B, Sidewall 7.5-8' OVA= 3.0 | 75     | 222.              | 6.6 |
| 1500.3  | Site C, Sidewall 7.5-8' OVA= ND  | 84     | ND                | 6.6 |
| 1500.4  | Site D, Sidewall 7.5-8' OVA= 2.0 | 77     | 206.              | 6.6 |
| 1500.5  | Site E, Sidewall 7.5-8' OVA= 7.0 | 81     | 39.6              | 6.6 |
| 1500.6  | Site F, Sidewall 7.5-8' OVA= 0.5 | 83     | 945.              | 6.6 |
| 1500.7  | Site G, 1' above A OVA= ND       | 85     | ND                | 6.6 |
|         |                                  |        |                   |     |
|         |                                  |        |                   |     |
|         |                                  |        |                   |     |
|         |                                  |        |                   |     |
|         |                                  |        |                   |     |
| M. Bl.  | Method Blank                     | 100    | ND                | 3.3 |

Notes: ND = Not Detected, MDL = Method Detection Limit

\* = Silica Gel Added, NA = Not Applicable

1500.7 dup= 100%, 1500.7 sp= 88%, 1500.7 sp dup= 100%, RPD= 13



Brian K. McKee  
Laboratory Director

[illegible]

Lab. ID #: 1500.1-.7  
Sample Rec'd: 05/23/94  
Analysis Start: 05/24/94  
Analysis Comp: 05/24/94

[illegible]

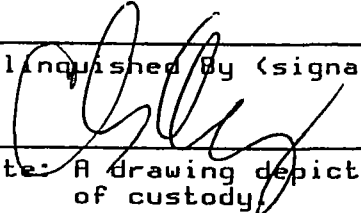
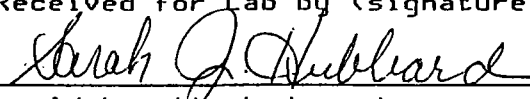
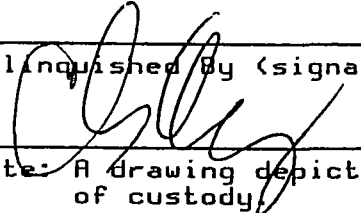
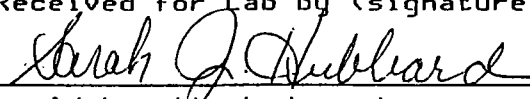
Brian K. McKee  
Laboratory Director



# SERV-AIR, INC.

P.O. #: PWS-007

Chain of Custody

| Project #: <u>C-93-3884</u>                                                                                         |                     | Sampler: <u>C. Appleby / Cate Inc.</u>                  |               | Date / Time: <u>5-23-94 / 11 AM</u>                                                  |                                                                                                                                                                                                                                                                                                                                                                                                           | Analysis Parameters |          | Start:              |            |                                  |
|---------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------|---------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|---------------------|------------|----------------------------------|
| Customer: <u>C. Appleby</u><br><u>SELPM-PW-EV</u>                                                                   |                     | Site Name: <u>Bldg. 2000</u><br><u>UST # 00192486-1</u> |               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |          | Finish:             |            |                                  |
| Phone: <u>X26224</u>                                                                                                |                     | C-93-3884                                               |               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |          | Preservation Method |            |                                  |
| Lab Sample ID Number                                                                                                | Date/Time           | Customer Sample Location/ID Number                      | Sample Matrix | # of Bottles                                                                         | <div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH/C</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">% Solids</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Munsel</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Oils Reading</div> </div> |                     |          |                     |            | Remarks                          |
| <u>1500.1</u>                                                                                                       | <u>5-23-94 1125</u> | <u>Site A - Sidewalk 7.5-8'</u>                         | <u>Soil</u>   | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>50</u>  | <u>Sample kept 4°C</u>           |
| <u>.12</u>                                                                                                          | <u>1119</u>         | <u>Site B "</u>                                         | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>3</u>   |                                  |
| <u>.3</u>                                                                                                           | <u>1115</u>         | <u>Site C "</u>                                         | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>180</u> |                                  |
| <u>.4</u>                                                                                                           | <u>1114</u>         | <u>Site D "</u>                                         | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>2</u>   |                                  |
| <u>.5</u>                                                                                                           | <u>1116</u>         | <u>Site E "</u>                                         | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>7</u>   | <u>amp. SN- A15224 Calibrate</u> |
| <u>.6</u>                                                                                                           | <u>1122</u>         | <u>Site F "</u>                                         | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>.5</u>  | <u>7ppm + 95 ppm methanone</u>   |
| <u>↓ .7</u>                                                                                                         | <u>1131</u>         | <u>Site G 1' above A</u>                                | <u>"</u>      | <u>1</u>                                                                             | <u>X</u>                                                                                                                                                                                                                                                                                                                                                                                                  | <u>X</u>            | <u>X</u> | <u></u>             | <u>ND</u>  | <u>5-23-94 945 AM</u>            |
|                                                                                                                     |                     |                                                         |               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |          |                     |            | <u>Methanone Read 77ppm</u>      |
|                                                                                                                     |                     |                                                         |               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |          |                     |            | <u>Low But OK C. Appleby</u>     |
| Relinquished By (signature)                                                                                         |                     | Date / Time                                             |               | Received By (signature)                                                              |                                                                                                                                                                                                                                                                                                                                                                                                           | Shipped By:         |          |                     |            |                                  |
|                                  |                     | <u>5/23/94 1205</u>                                     |               |  |                                                                                                                                                                                                                                                                                                                                                                                                           | <u>5/23/94 1205</u> |          |                     |            |                                  |
| Relinquished By (signature)                                                                                         |                     | Date / Time                                             |               | Received for Lab by (signature):                                                     |                                                                                                                                                                                                                                                                                                                                                                                                           | Date / Time         |          |                     |            |                                  |
|                                  |                     | <u>5/23/94 1205</u>                                     |               |  |                                                                                                                                                                                                                                                                                                                                                                                                           | <u>5/23/94 1205</u> |          |                     |            |                                  |
| Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. |                     |                                                         |               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |          |                     |            |                                  |

May 24, 1994 1135  
Sarah Hubbard

Blank 0 MV

40.75 104 MV

81.5 212 MV

163

414 MV

1501.1 7 MV

1501.2 5 MV

1501.3 3 MV

1501.4 3 MV

1501.5 2 MV

1501.6 0 MV ND

1501.7 0 MV ND

1501.8 0 MV ND

1501.9 0 MV ND

1501.10 0 MV ND

1501.11 2 MV

1501.12 0 MV ND

1501.12 Dup 0 MV ND

1501.12 Spike 38 MV

1501.12 Spike Dup 33 MV

PRINTED IN U.S.A.

125-6820 00

# PHC Conformance/Non-conformance Summary Report

No Yes

1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank

☒ ☐

2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)

☐ ☒

3. IR Spectra submitted for standards, blanks, & samples

☐ ☒

4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.

☐ ☒

5. Extraction holding time met. (If not met, list number of days exceeded for each sample)

☐ ☒

6. Analysis holding time met. (If not met, list number of days exceeded for each sample)

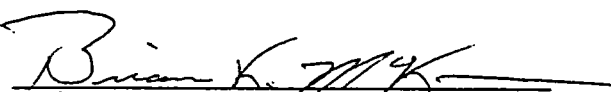
☐ ☒

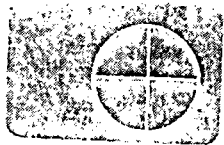
Comments:

## Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information contained in this report, and to the best of my knowledge, I believe that the submitted information is true, accurate, complete, and meets the above referenced standards where applicable. I am aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Project #1500

  
Brian K. McKee  
Laboratory Manager



princeton testing  
laboratory inc.

P.O. Box 3108  
3490 U.S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
FAX (609) 452-0347

U.S. Army Fort Monmouth  
ATTN: SELFM-PW  
Building 167  
Fort Monmouth, New Jersey 07703-5108

Attn: Charles Appleby

Project Name: Bldg. 2000 - UST 192486-1

JOB # 9402817-001

Laboratory Certification # 11118

Reviewed by:

W. Alan Volk 7/5/95  
W. Alan Volk

2817(1)

# LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR  
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

Check if  
Complete

1. Cover Page, Title Page listing Lab Certification #, facility name & address, & date of report ✓
2. Table of Contents ✓
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds ✓
4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s ✓
5. Document bound, paginated and legible ✓
6. Chain of Custody ✓
7. Methodology Summary ✓
8. Laboratory Chronicle and Holding Time Check ✓
9. Results submitted on a dry weight basis (if applicable) ✓
10. Method Detection Limits ✓
11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP ✓
12. Non-Conformance Summary ✓

W. A. Clark  
Laboratory Manager or Environmental  
Consultant's Signature

11/30/94  
Date

# ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

|                 |                              |                    |        |
|-----------------|------------------------------|--------------------|--------|
| LABORATORY NAME | PRINCETON TESTING LABORATORY |                    |        |
| CITY/STATE      | PRINCETON, NJ                |                    |        |
| CASE NO.        | 2817                         | SDG NO.            | 1510.1 |
|                 |                              | SDG NOS. TO FOLLOW | —      |
|                 | SAS NO. —                    |                    |        |
| CONTRACT NO.    | FORT MONMOUTH                |                    |        |
| SOW NO.         | OLMOL.8                      |                    |        |

All documents delivered in the complete SDG file must be original documents where possible. (REFERENCE EXHIBIT B, SECTION II and SECTION III.)

|                                                       | PAGE NOs |    | CHECK |     |
|-------------------------------------------------------|----------|----|-------|-----|
|                                                       | FROM     | TO | LAB   | EPA |
| 1. <u>Inventory Sheet</u> (Form DC-2) (Do not number) | —        | —  | ✓     | —   |
| 2. <u>SDG Case Narrative</u>                          | —        | —  | ✓     | —   |
| 3. <u>SDG Cover Sheet/Traffic Report</u>              | —        | —  | —     | —   |
| 4. <u>Volatiles Data</u>                              | —        | —  | —     | —   |
| a. QC Summary                                         |          |    |       |     |
| System Monitoring Compound Summary                    |          |    |       |     |
| (Form II VOA)                                         | —        | —  | ✓     | —   |
| Matrix Spike/Matrix Spike Duplicate Summary           | —        | —  | ✓     | —   |
| <del>(Form III VOA)</del> ALT                         | —        | —  | ✓     | —   |
| Method Blank Summary (Form IV VOA)                    | —        | —  | ✓     | —   |
| GC/MS Instrument Performance Check                    | —        | —  | ✓     | —   |
| (Form V VOA)                                          | —        | —  | ✓     | —   |
| Internal Standard Area and RT Summary                 | —        | —  | ✓     | —   |
| (Form VIII VOA)                                       | —        | —  | ✓     | —   |
| b. Sample Data                                        | —        | —  | —     | —   |
| TCL Results - (Form I VOA)                            | —        | —  | ✓     | —   |
| Tentatively Identified Compounds                      | —        | —  | ✓     | —   |
| (Form I VOA-TIC)                                      | —        | —  | ✓     | —   |
| Reconstructed total ion chromatograms (RIC)           | —        | —  | ✓     | —   |
| for each sample                                       | —        | —  | ✓     | —   |
| For each sample:                                      |          |    |       |     |
| Raw spectra and background-subtracted                 |          |    |       |     |
| mass spectra of target compounds                      |          |    |       |     |
| identified                                            | —        | —  | ✓     | —   |
| Quantitation reports                                  | —        | —  | —     | —   |
| Mass spectra of all reported TICs with three          |          |    |       |     |
| best library matches                                  | —        | —  | ✓     | —   |
| c. Standards Data (All Instruments)                   | —        | —  | —     | —   |
| Initial Calibration Data (Form VI VOA)                | —        | —  | ✓     | —   |
| RICs and Quan Reports for all Standards               | —        | —  | ✓     | —   |
| Continuing Calibration Data (Form VII VOA)            | —        | —  | ✓     | —   |
| RICs and Quantitation Reports for all Standards       | —        | —  | ✓     | —   |
| d. Raw QC Data                                        |          |    |       |     |
| BFB                                                   | —        | —  | ✓     | —   |
| Blank Data                                            | —        | —  | ✓     | —   |
| Matrix Spike/Matrix Spike Duplicate Data              | —        | —  | —     | —   |

**ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)**

|                |               |                          |
|----------------|---------------|--------------------------|
| CASE NO. _____ | SDG NO. _____ | SDG NOS. TO FOLLOW _____ |
| SAS NO. _____  |               |                          |

| PAGE NOs |    | CHECK |     |
|----------|----|-------|-----|
| FROM     | TO | LAB   | EPA |

Miscellaneous Data

Original preparation and analysis forms or copies of  
 preparation and analysis logbook pages  
 Internal sample and sample extract transfer  
 chain-of-custody records  
 Screening records  
 All instrument output, including strip charts  
 from screening activities (describe or list)

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

EPA Shipping/Receiving Documents

Airbills (No. of shipments \_\_\_\_)  
 Chain-of-Custody Records  
 Sample Tags  
 Sample Log-In Sheet (Lab & DCI)  
 Miscellaneous Shipping/Receiving Records  
 (describe or list)

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | ✓     | _____ |
| _____ | _____ | ✓     | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Internal Lab Sample Transfer Records and Tracking Sheets  
 (describe or list)

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Other Records (describe or list)

Telephone Communication Log

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Comments:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Completed by:  
 (CLP Lab)

[Signature]  
 (Signature)

W.A. VOLK, JR. QA/QC COORDINATOR  
 (Printed Name/Title)

6/29/94  
 (Date)

Reviewed by:  
 (EPA)

\_\_\_\_\_  
 (Signature)

\_\_\_\_\_  
 (Printed Name/Title)

\_\_\_\_\_  
 (Date)

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| Reconstructed Total ion Chromatograms (RIC) for each sample                       |        |
| For each sample:                                                                  |        |
| Raw spectra and background-subtracted mass spectra of target compounds identified |        |
| Quantitation reports                                                              |        |
| Mass spectra of all reported TICs with three best library matches                 |        |
| Standards Data (All Instruments).....                                             | 49     |
| Initial Calibration Data                                                          |        |
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| Continuing Calibration Data                                                       |        |
| RICs and Quantitation Reports for all Standards                                   |        |
| Raw QC Data .....                                                                 | 70     |
| RFB                                                                               |        |
| Blank Data                                                                        |        |
| Matrix Spike/Matrix Spike Duplicate Data                                          |        |



INORGANICS ..... 89

Inventory Sheet

Cover Page

Inorganic Analysis Data Sheet

Initial & Continuing Calibration Verification

CRDL Standards for AA and ICP

Blanks

Spike Sample Recovery

Duplicates

Laboratory Control Sample

Instrument Detection Limits

Preparation Log

Analysis Run Log

ICP Raw Data

Disc enclosed (sent)

**APPROVED SAMPLE ANALYSIS REQUEST**

U.S. Army, Fort Monmouth N.J.  
 ATTN: SELFM-PW  
 Building 167  
 Fort Monmouth, New Jersey 07703-5108  
 Attention: Charles Appleby  
 Phone:(908) 532-6224 FAX:(908) 532-2367

Customer Number: 1636-000  
 P.O. Number: E03-94U  
 Standard Tests  
 Project Name: Bldg. 2000

Project No.: 9402817-001EWM

Date Received: 06/01/94  
 Analysis Due : 06/03/94

Number Of Samples : 4  
 Number Of Containers: 9

Approved By: Steven Burns

Reports: Custom Report Format

| Sample I.D.'s                                        | Code                            | Requested Analytical Services                                                                                                                 | Sampled  |
|------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 001 1510.1<br>Site A-2<br>Bldg. 2000                 | VMS0B<br>/PBS1<br>CTS%<br>VMS0A | Volatile Organics Library Search<br>Lead, SW, GFAA, SW-846 7421 (Dry)<br>Solids, Percent, SW, EPA 160.3<br>Volatile Organics, SW, SW-846 8240 | 05/31/94 |
| 002 1510.2<br>Site F-2<br>Bldg. 2000                 | VMS0B<br>/PBS1<br>CTS%<br>VMS0A | Volatile Organics Library Search<br>Lead, SW, GFAA, SW-846 7421 (Dry)<br>Solids, Percent, SW, EPA 160.3<br>Volatile Organics, SW, SW-846 8240 | 05/31/94 |
| 003 1511.2 5/31/94<br>Field Blank<br>Bldg. 1108/2000 | VMW0B<br>/PBW0<br>VMW0A         | Volatile Organics Library Search<br>Lead, WW, GFAA, EPA 239.2<br>Volatile Organics, WW, SW-846 8240                                           | 05/31/94 |
| 004 1511.1<br>Site D-2<br>Bldg. 1108                 | VMS0B<br>/PBS1<br>CTS%<br>VMS0A | Volatile Organics Library Search<br>Lead, SW, GFAA, SW-846 7421 (Dry)<br>Solids, Percent, SW, EPA 160.3<br>Volatile Organics, SW, SW-846 8240 | 05/31/94 |

**Project Notes:**

verbals -- 48 hour TAT report -- 3 week TAT  
 MISCM = xylene, TBA, MTBE  
 \*\*Hardcopy must be sent with ASCII disk.

**Customer Notes:**

Three copies of packages. See Data Mgmt. for details.

Initials/Date

Received By Lab: \_\_\_\_\_  
 Reviewed By: \_\_\_\_\_  
 Q.A. Approved: \_\_\_\_\_

Printed By: Jane Dennison  
 Date: 07/05/95  
 Time: 12:21:08

L9094

# CHAIN OF CUSTODY RECORD

3490 S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
FAX (609) 452-1959

CLIENT FL MONMOUTH  
CONTACT \_\_\_\_\_  
PHONE NO. \_\_\_\_\_  
SAMPLING SITE \_\_\_\_\_

SAMPLERS CLINT  
FIELD SUPERVISOR \_\_\_\_\_  
COMPANY \_\_\_\_\_  
PHONE NO. \_\_\_\_\_

PTL JOB NO. 9402817  
CLIENT PROJECT NO. \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_

| SAMPLE IDENTIFICATION | MATRIX | COLLECTION |      |      |      | CONTAINER |     | ANALYSES REQUIRED<br>(Specify Method If Known) | REMARKS<br>(Specify QA/QC, preservation required, due date, etc.) |
|-----------------------|--------|------------|------|------|------|-----------|-----|------------------------------------------------|-------------------------------------------------------------------|
|                       |        | COMP.      | GRAB | DATE | TIME | TYPE      | NO. |                                                |                                                                   |
| 1510.1                | Soil   |            |      |      |      |           | 2   | VOA+15 XYLWE, TBA+MTBE Pb                      |                                                                   |
| 1510.2                | Soil   |            |      |      |      |           | 2   | Pb, VOA+15, XYLWE, TBA+MTBE                    |                                                                   |
| 1511.2                | Field  |            |      |      |      |           | 3   | VOA+15 XYLWE                                   |                                                                   |
| 1511.1                |        |            |      |      |      |           | 2   | Pb, VOA+15, XYLWE, TBA-MTBE                    |                                                                   |
|                       |        |            |      |      |      |           |     |                                                |                                                                   |
|                       |        |            |      |      |      |           |     |                                                |                                                                   |
|                       |        |            |      |      |      |           |     |                                                |                                                                   |
|                       |        |            |      |      |      |           |     |                                                |                                                                   |
|                       |        |            |      |      |      |           |     |                                                |                                                                   |

LABORATORY SEAL NO. \_\_\_\_\_  
SEALED ON \_\_\_\_\_ AT \_\_\_\_\_  
(Date) (Military Time)  
PREPARED BY \_\_\_\_\_  
METHODS OF TRANSPORT \_\_\_\_\_

LABORATORY SEAL NO. \_\_\_\_\_  
UNSEALED ON \_\_\_\_\_ AT \_\_\_\_\_  
(Date) (Military Time)  
SAMPLING COMPLETED ON \_\_\_\_\_ AT \_\_\_\_\_  
(Date) (Military Time)  
FIELD SEAL NO. \_\_\_\_\_

FIELD SEAL BROKEN BY \_\_\_\_\_  
DATE \_\_\_\_\_ MILITARY TIME \_\_\_\_\_  
REMARKS \_\_\_\_\_

| RELINQUISHED BY<br>(Print and Sign Name) | RECEIVED BY<br>(Print and Sign Name) | DATE   | TIME | REASON FOR CHANGE OF CUSTODY |
|------------------------------------------|--------------------------------------|--------|------|------------------------------|
| <u>[Signature]</u>                       | <u>[Signature]</u>                   | 6-1-94 | 4:30 |                              |
| <u>[Signature]</u>                       | <u>[Signature]</u>                   | 6-2-94 | 9:35 |                              |
| <u>[Signature]</u>                       | <u>[Signature]</u>                   | 6/2/94 | 1008 |                              |
|                                          |                                      |        |      |                              |
|                                          |                                      |        |      |                              |
|                                          |                                      |        |      |                              |

**SERV-AIR, INC.**

P.O. #: BPA- / Princeton Labs.

### Chain of Custody

[illegible]

6 John White %TS G-24-94

**SERV-AIR, INC.**

P.O. #: BPA / Princeton Labs

## Chain of Custody

|                                                                                                                         |                |                                            |               |                                  |                  |                     |  |                     |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------|---------------|----------------------------------|------------------|---------------------|--|---------------------|--|--|--|--|
| Project #: C-93-3884                                                                                                    |                | Sampler: C. Appleby / Cate Inc.            |               | Date / Time: 5-31-94 / 1345      |                  | Analysis Parameters |  | Start:              |  |  |  |  |
| Customer: C. Appleby<br>SELEM-PU-EV                                                                                     |                | Site Name: Bldg. 2000<br>Unit # - 192486-1 |               |                                  |                  |                     |  | Finish:             |  |  |  |  |
| Phone: 530-6224                                                                                                         |                | C-93-3884                                  |               |                                  |                  |                     |  | Preservation Method |  |  |  |  |
| Lab Sample ID Number                                                                                                    | Date/Time      | Customer Sample Location/ID Number         | Sample Matrix | # of Bottles                     | Remarks          |                     |  |                     |  |  |  |  |
| 1510.1                                                                                                                  | 5-31-94 / 1435 | Site A-2                                   | Soil          | 2                                | Samples kept 4°C |                     |  |                     |  |  |  |  |
| ↓ .2                                                                                                                    | 5-31-94 / 1420 | Site F-2                                   | Soil          | 2                                |                  |                     |  |                     |  |  |  |  |
| 1511.2                                                                                                                  | 5-31-94 / 1345 | Field Blank (From Site 1108 area)          | AQ            | 3                                |                  |                     |  |                     |  |  |  |  |
| Sample is on separate COC per O                                                                                         |                |                                            |               |                                  |                  |                     |  |                     |  |  |  |  |
| note: FB taken at Bldg 1108 + on separate COC as well. Use one sample ID # for Field Blank.                             |                |                                            |               |                                  |                  |                     |  |                     |  |  |  |  |
| Relinquished By (signature)                                                                                             |                | Date / Time                                |               | Received By (signature)          |                  | Shipped By:         |  |                     |  |  |  |  |
| [Signature]                                                                                                             |                | 5/31/94 / 1540                             |               | Sarah J. Hubbard                 |                  |                     |  |                     |  |  |  |  |
| Relinquished By (signature)                                                                                             |                | Date / Time                                |               | Received For Lab by (signature): |                  | Date / Time         |  |                     |  |  |  |  |
| Sarah J. Hubbard                                                                                                        |                | 6/1/94 / 1213                              |               | [Signature]                      |                  | 6-1-94 / 12:15      |  |                     |  |  |  |  |
| Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. N/A |                |                                            |               |                                  |                  |                     |  |                     |  |  |  |  |

7



# princeton testing laboratory inc.

P.O. Box 3108  
3490 U.S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
FAX (609) 452-0347

## LABORATORY CHRONICLE ORGANIC ANALYSIS

Company: US Army, Fort Monmouth N.J. Job #: 9402817  
Date Received & Refrigerated: 06/01/94

### EXTRACTION INFORMATION

Base-Neutral Extractables

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Acid Extractables

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Pesticides/ PCBs

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

PCBs only

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Herbicides

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Pesticides (EPTOX)

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Other: \_\_\_\_\_

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

### ANALYSIS INFORMATION

Base-Neutral Extractables

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Acid Extractables

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Pesticides/ PCBs

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

PCBs only

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Herbicides

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Pesticides (EPTOX)

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Volatiles - 601/602

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Volatiles - ~~624~~/8240

uvc 06/03/1994

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Other: \_\_\_\_\_

\_\_\_ ☒ \_\_\_ ☒ \_\_\_

Dept. Manager Review and Approval:

QC Supervisor Review and Approval:

Heggin 11/30/94  
W. W. W. W. 11/30/94

PRINCETON TESTING LABORATORY

LABORATORY CHRONICLE

Company: Ft. Monmouth

Job No. 9402817

Type Samples: Soil

Due Date: 6/3/94

Number: 2

Date Received &  
Refrigerated: 6/1/94

INORGANICS  
ANALYTES

OTHER

1. Metals RBK

Lead 6/3/94

2. Cyanides \_\_\_\_\_

3. Phenol \_\_\_\_\_

DIVISION SUPERVISOR  
REVIEW & APPROVAL:

Jon E. H. [Signature]  
Date: 7/7/95

QUALITY CONTROL SUPERVISOR  
REVIEW & APPROVAL:

[Signature]  
Date: 7/7/95

If fractions are re-extracted and re-analyzed because initial endeavors did not meet quality control acceptance criteria, include dates for both.

# princeton testing laboratory inc.

P.O. Box 3108  
3490 U.S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
FAX (609) 452-0347

## METHODOLOGY SUMMARY

Laboratory: Princeton Testing Lab. Case Name: U.S. Army  
Ft. Monmouth  
Location: Princeton, New Jersey Case Number: 9502817

---

### VOLATILE ORGANIC ANALYSES:

EPA Method SW-486 8240

---

### SEMIVOLATILE ORGANIC ANALYSES (ABN EXTRACTABLES):

---

### PESTICIDES/PCBs and CHLORINATED HERBICIDES:

---

### METALS ANALYSES:

Lead EPA Method 239.2

---

### TOTAL CYANIDE ANALYSES:

---

### TOTAL PHENOL ANALYSES:

---

### OTHER ANALYSES (SPECIFY):

Total Solids EPA Method 160.3

---

NOTE: Only methods actually used in the performance of analyses  
for this data package may be entered on this form:  
NJDEPE Form A-3 (9/91)



## STANDARD TEST LIST

Page: 1

Test Name: Volatile Organics, SW, SW-846 8240  
SPEC CODE: VMS0A

Lab Code: M  
Manager : KE  
Units : ug/kg

Short Name: VO.SW.8240  
List Price:  
Report Type:

Description

| Compound                   | MDL     | CAS#     | KEY# | CLIENT<br>KEY# |
|----------------------------|---------|----------|------|----------------|
| Chloromethane              | 10      | 00074873 | C010 | 1454           |
| Bromomethane               | 10      | 00074839 | C015 | 1462           |
| Vinyl chloride             | 10      | 00075014 |      | 1531           |
| Chloroethane               | 10      | 00075003 |      | 1452           |
| Methylene chloride         | 5       | 00075092 |      | 1172           |
| Acetone                    | 5       | 00067641 |      | 1496           |
| Carbon disulfide           | 5       | 00075150 |      | 1646           |
| 1,1-Dichloroethene         | 5       | 00075354 |      | 1442           |
| 1,1-Dichloroethane         | 5       | 00075343 |      | 1580           |
| 1,2-Dichloroethene (Total) | 5       | 00540590 |      | 1583           |
| Chloroform                 | 5       | 00067663 |      | 1078           |
| 1,2-Dichloroethane         | 5       | 00107062 |      | 1383           |
| 2-Butanone                 | 5       | 00078933 |      | 1278           |
| 1,1,1-Trichloroethane      | 5       | 00071556 |      | 1068           |
| Carbon tetrachloride       | 5       | 00056235 |      | 1384           |
| Bromodichloromethane       | 5       | 00075274 |      | 1480           |
| 1,1,2,2-Tetrachloroethane  | 5       | 00079345 |      | 1200           |
| 1,2-Dichloropropane        | 5       | 00078875 |      | 1368           |
| trans-1,3-Dichloropropene  | 5       | 10061026 |      | 1364           |
| Trichloroethene            | 5       | 00079016 |      | 1074           |
| Dibromochloromethane       | 5       | 00124481 |      | 1390           |
| 1,1,2-Trichloroethane      | 5       | 00079005 |      | 1070           |
| Benzene                    | 5       | 00071432 |      | 1466           |
| cis-1,3-Dichloropropene    | 5       | 10061015 |      | 1362           |
| Bromoform                  | 5       | 00075252 |      | 1124           |
| 2-Hexanone                 | 5       | 00591786 |      | 1324           |
| 4-Methyl-2-Pentanone       | 5       | 00108101 |      | 1158           |
| Tetrachloroethene          | 5       | 00127184 |      | 1096           |
| Toluene                    | 5       | 00108333 |      | 1426           |
| Chlorobenzene              | 5       | 00108907 |      | 1564           |
| Ethylbenzene               | 5       | 00100414 |      | 1394           |
| Styrene                    | 5       | 00100425 |      | 1120           |
| Total Xylenes              | 5       | 01330207 |      | 1677           |
| RECOVERY DATA              |         |          |      |                |
| QC LIMITS                  |         |          |      |                |
| 1,2-Dichloroethane-D4      | 70-121% |          |      | 1577           |
| Toluene-d8                 | 84-138% | 02037265 |      | 1579           |
| 4-Bromofluorobenzene       | 59-113% | 00460004 |      | 1433           |

QUALITY CONTROL SUMMARY

VOLATILE ORGANICS

# GCMS ANALYSIS NON CONFORMANCE SUMMARY

NO YES

## 1. GCMS TUNE SPECIFICATION.

- a. BFB Passed \_\_\_\_\_ ✓
- b. DFTPP Passed \_\_\_\_\_

## 2. GCMS TUNING FREQUENCY.

- a. Performed every 12 hours. \_\_\_\_\_ ✓
- b. Performed every 24 hours. \_\_\_\_\_

## 3. GCMS Calibration.

- a. Initial calibration performed w/i 30 days of sample analysis. \_\_\_\_\_ ✓
- b. Continuing calibration w/i 12 hours. \_\_\_\_\_ ✓
- c. Continuing calibration w/i 24 hours. \_\_\_\_\_

## 4. GCMS Calibration requirements.

- a. Calibration check compounds. \_\_\_\_\_ ✓
- b. System performance check compounds. \_\_\_\_\_ ✓

## 5. Blank Contamination.

- a. VOA Fraction \_\_\_\_\_ None
- b. B/N Fraction \_\_\_\_\_
- c. Acid Fraction \_\_\_\_\_

## 6. Surrogate Recoveries Within Limits.

- a. VOA Fraction \_\_\_\_\_ ✓
- b. B/N Fraction \_\_\_\_\_
- c. Acid Fraction \_\_\_\_\_

## 7. Extraction Holding Time Met.

\_\_\_\_\_

## 8. Analysis Holding Time Met.

- a. VOA Fraction \_\_\_\_\_ ✓
- b. BNA Fraction \_\_\_\_\_

## Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

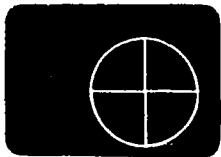
Laboratory Manager                     J. Legg                     Date                     6/20/94

METAL ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

- |                                                                                                                                                                          | <u>No</u>  | <u>Yes</u> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| 1. Calibration Summary Meet Criteria . . . . .                                                                                                                           | _____      | ✓          |
| 2. ICP Interference Check Sample Results Summary<br>Submitted<br>(if applicable) / Meet Criteria . . . . .                                                               | N/A. _____ | _____      |
| 3. Serial Dilution Summary Submitted<br>(if applicable) / Meet Criteria . . . . .                                                                                        | N/A. _____ | _____      |
| 4. Laboratory Control Sample Summary Submitted<br>(if applicable) / Meet Criteria . . . . .                                                                              | _____      | ✓          |
| 5. Blank Contamination - If yes, list compounds and<br>concentrations in each blank:<br><br><u>Lead - preparation blank - 0.117mg/kg, 1511.2-Blank - 4.7ug/L</u>         |            |            |
| 6. Matrix Spike/Matrix spike Duplicate Recoveries Meet<br>Criteria<br>(If not met, list those compounds and their<br>recoveries which fall outside the acceptable range) | _____      | ✓          |
| 7. Extraction Holding Time Met<br><br>If not met, list number of days exceeded for each<br>sample: _____                                                                 | _____      | ✓          |
| 8. Analysis Holding Time Met<br><br>If not met, list number of days exceeded for ea. sample: _____                                                                       | _____      | ✓          |

Additional Comments: For the analysis of 1511.2 Blank, this sample was used  
for the spike and duplicate. This blank should not have been used for the AC, but it was because  
it was the only aqueous sample prepared for this job

Laboratory Supervisor: Laura Stewart Date: 6/24/97



princeton testing  
laboratory inc.

P.O. Box 3108  
3490 U.S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
FAX (609) 452-0347

June 20, 1994

US Army Fort Monmouth NJ  
Building 167  
Fort Monmouth, New Jersey 07703-5108

Attention: Charles Appleby  
Job Number: 9402817-001EWM

**CASE NARRATIVE**

This data package pertains to the samples received by Princeton Testing Lab on 06/01/94 and analyzed for Volatile Organic Compounds by the GC/MS.

If you have any questions regarding this report, do not hesitate to contact me or Dr. Jane Dennison at (609) 452-9050.

Sincerely,

Khaja Eazazuddin.  
GC/MS Laboratory Supervisor.  
Princeton Testing Laboratory.

2B  
VOLATILE SURROGATE SUMMARY

Lab Name: Princeton Testing Lab. Contract: US Army, Fort  
Monmouth.  
 Lab Code: PTL Case No.: 2817 SAS No.:        SDG No.:         
 Instrument ID: INCOS-500

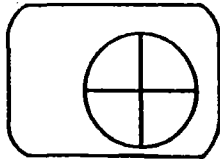
| SAMPLE NO.       | (1,2-DCE) | (TOL-D8) | (4-BFB) |
|------------------|-----------|----------|---------|
| M. BLANK 5/26/94 | 105       | 102      | 89      |
| 1503.2           | 105       | 108      | 89      |
| 1503.2 MS        | 109       | 100      | 80      |
| 1503.2 MSD       | 106       | 103      | 82      |
| M. BLANK 6/03/94 | 108       | 99       | 81      |
| 1510.1           | 104       | 102      | 84      |
| 1510.2           | 107       | 97       | 80      |
| 1511.1           | 107       | 92       | 86      |
| 1511.2           | 106       | 102      | 81      |

(1,2-DCE) = 1,2-DICHLOROETHANE-d4 (70-121)  
 (TOL-d8) = TOLUENE-d8 (84-138)  
 (4-BFB) = 4-BROMOFLUOROBENZENE (59-113)

COMMENTS:

page 1 of 1

FORM II VOA-2



# Princeton Testing Laboratory Inc.

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Princeton, NJ 08543-3108  
(609) 452-8050  
(FAX) (609) 452-0347

## Matrix Spike/Matrix Spike Duplicate Recovery Data Test: Volatile Organics, Method 8240

Client: U.S. Army, Fort Monmouth N.J.

Project No.: 9402712-001

Lab Sample I.D.: 002

Client Sample I.D.: 1503.2  
05/23/94

Analyst: Uma Chaudhary  
Instrument: Incos 500 Volatiles  
Units: ug/kg

QC Batch Number: 940526SV

| COMPOUND           | SPIKE<br>ADDED | SAMPLE<br>CONCENTRATION | MATRIX SPIKE<br>CONCENTRATION | MS<br>% REC | QC LIMITS<br>REC |
|--------------------|----------------|-------------------------|-------------------------------|-------------|------------------|
| 1,1-Dichloroethene | 50             | 0                       | 46.4                          | 92.80       | 58-172           |
| Trichloroethene    | 50             | 0                       | 54.3                          | 108.60      | 62-137           |
| Benzene            | 50             | 0                       | 46.3                          | 92.60       | 66-142           |
| Toluene            | 50             | 0                       | 51.5                          | 103.00      | 59-139           |
| Chlorobenzene      | 50             | 0                       | 51.8                          | 103.60      | 60-133           |

| COMPOUND           | SPIKE<br>ADDED | MSD<br>CONCENTRATION | RPD  | MSD<br>% REC | QC LIMITS<br>RPD |
|--------------------|----------------|----------------------|------|--------------|------------------|
| 1,1-Dichloroethene | 50             | 50.5                 | 8.46 | 101.00       | 0-22             |
| Trichloroethene    | 50             | 53.8                 | .93  | 107.60       | 0-24             |
| Benzene            | 50             | 46.9                 | 1.29 | 93.80        | 0-21             |
| Toluene            | 50             | 51.2                 | .58  | 102.40       | 0-21             |
| Chlorobenzene      | 50             | 52.7                 | 1.72 | 105.40       | 0-21             |



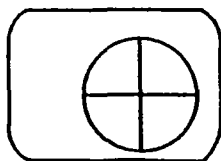
## VOLATILE METHOD BLANK SUMMARY

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH N.J.Case No.: 2817 Lab Sample ID: LAB BLK6/03 Lab File ID: CBLK603Date Analyzed: 06/03/94Instrument ID: INCOS-500

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

|    | EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|----|-------------------|------------------|----------------|------------------|
| 01 | <u>1510.1</u>     | <u>2817-1</u>    | <u>C7813</u>   | <u>6/03/94</u>   |
| 02 | <u>1510.2</u>     | <u>2817-2</u>    | <u>C7814</u>   | <u>6/03/94</u>   |
| 03 | <u>1511.1</u>     | <u>2817-4</u>    | <u>C7815</u>   | <u>6/03/94</u>   |
| 04 | <u>1511.2</u>     | <u>2817-3</u>    | <u>C7812</u>   | <u>6/03/94</u>   |

FORM IV V



# Princeton Testing Laboratory Inc.

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(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.  
ATTN: SELFM-PW  
Building 167  
Fort Monmouth, New Jersey 07703-5108  
Attention: Charles Appleby

Report Date: 06/20/94  
Job Number: 9402817-001  
Date Received: 06/01/94

Page: 1

Analysis: Volatile Organics, SW, SW-846 8240  
Units: ug/kg

## Parameters

Sample I.D.: Blank 06/03/94

|                            |      |
|----------------------------|------|
| Chloromethane              | <10  |
| Bromomethane               | <10  |
| Vinyl chloride             | <10  |
| Chloroethane               | <10  |
| Methylene chloride         | <5.0 |
| Acetone                    | <5.0 |
| Carbon disulfide           | <5.0 |
| 1,1-Dichloroethene         | <5.0 |
| 1,1-Dichloroethane         | <5.0 |
| 1,2-Dichloroethene (Total) | <5.0 |
| Chloroform                 | <5.0 |
| 1,2-Dichloroethane         | <5.0 |
| 2-Butanone                 | <5.0 |
| 1,1,1-Trichloroethane      | <5.0 |
| Carbon tetrachloride       | <5.0 |
| Bromodichloromethane       | <5.0 |
| 1,1,2,2-Tetrachloroethane  | <5.0 |
| 1,2-Dichloropropane        | <5.0 |
| trans-1,3-Dichloropropene  | <5.0 |
| Trichloroethene            | <5.0 |
| Dibromochloromethane       | <5.0 |
| 1,1,2-Trichloroethane      | <5.0 |
| Benzene                    | <5.0 |
| cis-1,3-Dichloropropene    | <5.0 |
| Bromoform                  | <5.0 |
| 2-Hexanone                 | <5.0 |
| 4-Methyl-2-Pentanone       | <5.0 |
| Tetrachloroethene          | <5.0 |
| Toluene                    | <5.0 |
| Chlorobenzene              | <5.0 |
| Ethylbenzene               | <5.0 |
| Styrene                    | <5.0 |
| Total Xylenes              | <5.0 |

## RECOVERY DATA

## QC LIMITS

|                                   |         |     |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 108 |
| Toluene-d8 (Surrogate)            | 84-138% | 99  |
| 4-Bromofluorobenzene (Surrogate)  | 59-113% | 81  |

+-----+  
 | SAMPLE NO. |  
 | LAB BLANK |  
 +-----+

Lab Code: PTL Case No.: 2817 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Sample wt/vol: 5.0 (g/mL) g Lab File ID: CBLK603

%Moisture: not dec. Date Analyzed: 6/3/94

Soil Extract Vol: \_\_\_\_\_ ul      Soil Aliquot Vol: \_\_\_\_\_ ul

Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT   | EST. CONC. | SCAN |
|------------|---------------|------|------------|------|
| 100-00-0   | ACETONE       | 1.2  | 100        | 100  |
| 71-43-2    | ETHANOL       | 1.5  | 50         | 100  |
| 64-17-5    | ACETIC ACID   | 1.8  | 20         | 100  |
| 74-82-8    | WATER         | 2.0  | 10         | 100  |
| 107-13-6   | PROPAN-2-OL   | 2.5  | 10         | 100  |
| 108-90-7   | PROPANE       | 3.0  | 5          | 100  |
| 109-66-7   | PROPAN-1-OL   | 3.5  | 5          | 100  |
| 110-54-2   | PROPAN-2-OL   | 4.0  | 5          | 100  |
| 111-66-7   | PROPAN-1-OL   | 4.5  | 5          | 100  |
| 112-63-5   | PROPAN-2-OL   | 5.0  | 5          | 100  |
| 113-63-5   | PROPAN-1-OL   | 5.5  | 5          | 100  |
| 114-63-5   | PROPAN-2-OL   | 6.0  | 5          | 100  |
| 115-63-5   | PROPAN-1-OL   | 6.5  | 5          | 100  |
| 116-63-5   | PROPAN-2-OL   | 7.0  | 5          | 100  |
| 117-63-5   | PROPAN-1-OL   | 7.5  | 5          | 100  |
| 118-63-5   | PROPAN-2-OL   | 8.0  | 5          | 100  |
| 119-63-5   | PROPAN-1-OL   | 8.5  | 5          | 100  |
| 120-63-5   | PROPAN-2-OL   | 9.0  | 5          | 100  |
| 121-63-5   | PROPAN-1-OL   | 9.5  | 5          | 100  |
| 122-63-5   | PROPAN-2-OL   | 10.0 | 5          | 100  |
| 123-63-5   | PROPAN-1-OL   | 10.5 | 5          | 100  |
| 124-63-5   | PROPAN-2-OL   | 11.0 | 5          | 100  |
| 125-63-5   | PROPAN-1-OL   | 11.5 | 5          | 100  |
| 126-63-5   | PROPAN-2-OL   | 12.0 | 5          | 100  |
| 127-63-5   | PROPAN-1-OL   | 12.5 | 5          | 100  |
| 128-63-5   | PROPAN-2-OL   | 13.0 | 5          | 100  |
| 129-63-5   | PROPAN-1-OL   | 13.5 | 5          | 100  |
| 130-63-5   | PROPAN-2-OL   | 14.0 | 5          | 100  |
| 131-63-5   | PROPAN-1-OL   | 14.5 | 5          | 100  |
| 132-63-5   | PROPAN-2-OL   | 15.0 | 5          | 100  |
| 133-63-5   | PROPAN-1-OL   | 15.5 | 5          | 100  |
| 134-63-5   | PROPAN-2-OL   | 16.0 | 5          | 100  |
| 135-63-5   | PROPAN-1-OL   | 16.5 | 5          | 100  |
| 136-63-5   | PROPAN-2-OL   | 17.0 | 5          | 100  |
| 137-63-5   | PROPAN-1-OL   | 17.5 | 5          | 100  |
| 138-63-5   | PROPAN-2-OL   | 18.0 | 5          | 100  |
| 139-63-5   | PROPAN-1-OL   | 18.5 | 5          | 100  |
| 140-63-5   | PROPAN-2-OL   | 19.0 | 5          | 100  |
| 141-63-5   | PROPAN-1-OL   | 19.5 | 5          | 100  |
| 142-63-5   | PROPAN-2-OL   | 20.0 | 5          | 100  |
| 143-63-5   | PROPAN-1-OL   | 20.5 | 5          | 100  |
| 144-63-5   | PROPAN-2-OL   | 21.0 | 5          | 100  |
| 145-63-5   | PROPAN-1-OL   | 21.5 | 5          | 100  |
| 146-63-5   | PROPAN-2-OL   | 22.0 | 5          | 100  |
| 147-63-5   | PROPAN-1-OL   | 22.5 | 5          | 100  |
| 148-63-5   | PROPAN-2-OL   | 23.0 | 5          | 100  |
| 149-63-5   | PROPAN-1-OL   | 23.5 | 5          | 100  |
| 150-63-5   | PROPAN-2-OL   | 24.0 | 5          | 100  |
| 151-63-5   | PROPAN-1-OL   | 24.5 | 5          | 100  |
| 152-63-5   | PROPAN-2-OL   | 25.0 | 5          | 100  |
| 153-63-5   | PROPAN-1-OL   | 25.5 | 5          | 100  |
| 154-63-5   | PROPAN-2-OL   | 26.0 | 5          | 100  |
| 155-63-5   | PROPAN-1-OL   | 26.5 | 5          | 100  |
| 156-63-5   | PROPAN-2-OL   | 27.0 | 5          | 100  |
| 157-63-5   | PROPAN-1-OL   | 27.5 | 5          | 100  |
| 158-63-5   | PROPAN-2-OL   | 28.0 | 5          | 100  |
| 159-63-5   | PROPAN-1-OL   | 28.5 | 5          | 100  |
| 160-63-5   | PROPAN-2-OL   | 29.0 | 5          | 100  |
| 161-63-5   | PROPAN-1-OL   | 29.5 | 5          | 100  |
| 162-63-5   | PROPAN-2-OL   | 30.0 | 5          | 100  |
| 163-63-5   | PROPAN-1-OL   | 30.5 | 5          | 100  |
| 164-63-5   | PROPAN-2-OL   | 31.0 | 5          | 100  |
| 165-63-5   | PROPAN-1-OL   | 31.5 | 5          | 100  |
| 166-63-5   | PROPAN-2-OL   | 32.0 | 5          | 100  |
| 167-63-5   | PROPAN-1-OL   | 32.5 | 5          | 100  |
| 168-63-5   | PROPAN-2-OL   | 33.0 | 5          | 100  |
| 169-63-5   | PROPAN-1-OL   | 33.5 | 5          | 100  |
| 170-63-5   | PROPAN-2-OL   | 34.0 | 5          | 100  |
| 171-63-5   | PROPAN-1-OL   | 34.5 | 5          | 100  |
| 172-63-5   | PROPAN-2-OL   | 35.0 | 5          | 100  |
| 173-63-5   | PROPAN-1-OL   | 35.5 | 5          | 100  |
| 174-63-5   | PROPAN-2-OL   | 36.0 | 5          | 100  |
| 175-63-5   | PROPAN-1-OL   | 36.5 | 5          | 100  |
| 176-63-5   | PROPAN-2-OL   | 37.0 | 5          | 100  |
| 177-63-5   | PROPAN-1-OL   | 37.5 | 5          | 100  |
| 178-63-5   | PROPAN-2-OL   | 38.0 | 5          | 100  |
| 179-63-5   | PROPAN-1-OL   | 38.5 | 5          | 100  |
| 180-63-5   | PROPAN-2-OL   | 39.0 | 5          | 100  |
| 181-63-5   | PROPAN-1-OL   | 39.5 | 5          | 100  |
| 182-63-5   | PROPAN-2-OL   | 40.0 | 5          | 100  |
| 183-63-5   | PROPAN-1-OL   | 40.5 | 5          | 100  |
| 184-63-5   | PROPAN-2-OL   | 41.0 | 5          | 100  |
| 185-63-5   | PROPAN-1-OL   | 41.5 | 5          | 100  |
| 186-63-5   | PROPAN-2-OL   | 42.0 | 5          | 100  |
| 187-63-5   | PROPAN-1-OL   | 42.5 | 5          | 100  |
| 188-63-5   | PROPAN-2-OL   | 43.0 | 5          | 100  |
| 189-63-5   | PROPAN-1-OL   | 43.5 | 5          | 100  |
| 190-63-5   | PROPAN-2-OL   | 44.0 | 5          | 100  |
| 191-63-5   | PROPAN-1-OL   | 44.5 | 5          | 100  |
| 192-63-5   | PROPAN-2-OL   | 45.0 | 5          | 100  |
| 193-63-5   | PROPAN-1-OL   | 45.5 | 5          | 100  |
| 194-63-5   | PROPAN-2-OL   | 46.0 | 5          | 100  |
| 195-63-5   | PROPAN-1-OL   | 46.5 | 5          | 100  |
| 196-63-5   | PROPAN-2-OL   | 47.0 | 5          | 100  |
| 197-63-5   | PROPAN-1-OL   | 47.5 | 5          | 100  |
| 198-63-5   | PROPAN-2-OL   | 48.0 | 5          | 100  |
| 199-63-5   | PROPAN-1-OL   | 48.5 | 5          | 100  |
| 200-63-5   | PROPAN-2-OL   | 49.0 | 5          | 100  |

5A  
VOLATILE ORGANIC GC/MS TUNING AND MASS  
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH  
Lab Code: PTL Case No.: 2817 SAS No.: SDG No.:  
Lab File ID: BFB421 BFB Injection Date: 4/21/94  
Instrument ID: INCOS-500 BFB Injection Time: 1001  
Column: (pack/cap) Cap

| m/e | ION ABUNDANCE CRITERIA                               | % RELATIVE ABUNDANCE |
|-----|------------------------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95                              | 17.6                 |
| 75  | 30.0 - 60.0% of mass 95                              | 44.4                 |
| 95  | Base peak, 100% relative abundance                   | 100.0                |
| 96  | 5.0 - 9.0% of mass 95                                | 8.0                  |
| 173 | Less than 2.0% of mass 174                           | 0.0 ( 0.0)1          |
| 174 | Greater than 50.0% of mass 95                        | 55.6                 |
| 175 | 5.0 - 9.0% of mass 174                               | 4.6 ( 7.0)1          |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 63.2 ( 96.3)1        |
| 177 | 5.0 - 9.0% of mass 176                               | 4.0 ( 6.4)2          |

1-Value is % mass 174

2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-------------------|------------------|----------------|------------------|------------------|
| 50 PPB STD        | 50 PPB STD       | C7444          | 4/21/94          | 1200             |
| 10 PPB STD        | 10 PPB STD       | C7445          | 4/21/94          | 1246             |
| 20 PPB STD        | 20 PPB STD       | C7446          | 4/21/94          | 1342             |
| 100 PPB STD       | 100 PPB STD      | C7447          | 4/21/94          | 1428             |
| 200 PPB STD       | 200 PPB STD      | C7448          | 4/21/94          | 1516             |

VOLATILE ORGANIC GC/MS TUNING AND MASS  
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Princeton Testing Lab. Contract: US ARMY FORT MONMOUTH NJ

Case No.: 2817 Lab File ID: BFB603 BFB Injection Date: 06/03/94

Instrument ID: INCOS-500 BFB Injection Time: 1126

| m/e | ION ABUNDANCE CRITERIA                               | % RELATIVE ABUNDANCE |
|-----|------------------------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95                              | 16.5                 |
| 75  | 30.0 - 60.0% of mass 95                              | 43.0                 |
| 95  | Base peak, 100% relative abundance                   | 100.0                |
| 96  | 5.0 - 9.0% of mass 95                                | 6.7                  |
| 173 | Less than 2.0% of mass 174                           | 0.0                  |
| 174 | Greater than 50.0% of mass 95                        | 88.9                 |
| 175 | 5.0 - 9.0% of mass 174                               | 6.9                  |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 97.5                 |
| 177 | 5.0 - 9.0% of mass 176                               | 6.4                  |

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-------------------|------------------|----------------|------------------|------------------|
| VSTD050           | 50 PPB STD       | CVD603         | 06/03/94         | 1159             |
| LAB BLANK         | LAB BLANK        | CBLK603        | 06/03/94         | 1318             |
| 1510.1            | 2817-01          | C7813          | 06/03/94         | 1458             |
| 1510.2            | 2817-02          | C7814          | 06/03/94         | 1548             |
| 1511.1            | 2817-04          | C7815          | 06/03/94         | 1637             |
| 1511.2            | 2817-03          | C7812          | 06/03/94         | 1408             |

FORM V VOA

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Princeton Testing Lab. Contract: US ARMY FORT MONMOUTH NJ.  
 Case No.: 2817 Lab File ID (standard):CVD603 Instrument ID:INCOS-500  
 Date Analyzed: 06/03/94 Time Analyzed: 1159

|                | IS1(BCM) | RT    | IS2(DFB) | RT    | IS3(CB) | RT    |
|----------------|----------|-------|----------|-------|---------|-------|
| 12hr. STD      | 21762    | 09:27 | 73132    | 11:50 | 58537   | 23:54 |
| Upper Limit    | 43524    | 09:77 | 146264   | 12:00 | 117074  | 24:04 |
| Lower Limit    | 10881    | 08:77 | 36566    | 11:00 | 29269   | 23:04 |
| EPA Sample.    |          |       |          |       |         |       |
| 1 LAB BLANK6/3 | 18304    | 09:27 | 63429    | 11:52 | 56775   | 23:59 |
| 2 1510.1       | 14386    | 09:27 | 51260    | 11:52 | 42977   | 23:54 |
| 3 1510.2       | 15732    | 09:27 | 52867    | 11:52 | 47711   | 23:54 |
| 4 1511.2       | 10155    | 09:28 | 35753    | 11:53 | 30895   | 23:56 |
| 5 1511.1       | 14141    | 09:27 | 44974    | 11:52 | 42238   | 23:56 |

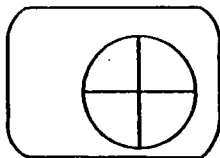
IS1=BROMOCHLOROMETHANE  
 IS2=1,4-DIFLUOROBENZENE  
 IS3=CHLOROBENZENE-DS

Area Upper Limit = +100% of Internal Standard area.  
 Area Lower Limit = - 50% of Internal Standard area.  
 RT Upper Limit = +0.50 minutes of Internal Standard RT.  
 RT Lower Limit = -0.50 minutes of Internal Standard RT.

\* Values outside of QC limits. FORM VIII V-1

PAGE 1 of 1.

SAMPLE DATA



# Princeton Testing Laboratory Inc.

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(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.  
ATTN: SELFM-PW  
Building 167  
Fort Monmouth, New Jersey 07703-5108  
Attention: Charles Appleby  
Project Name: Bldg. 2000/1108

Report Date: 11/07/94  
Job Number: 9402817-001  
Date Received: 06/01/94

Page: 1

**Analysis: Volatile Organics, SW, SW-846 8240**  
**Units: ug/kg**

| Parameters                 | Sample I.D.: |     |
|----------------------------|--------------|-----|
|                            | 1510.1       |     |
|                            | Site A-2     |     |
|                            | Bldg. 2000   |     |
| Chloromethane              |              | <29 |
| Bromomethane               |              | <29 |
| Vinyl chloride             |              | <29 |
| Chloroethane               |              | <29 |
| Methylene chloride         |              | <14 |
| Acetone                    |              | <14 |
| Carbon disulfide           |              | <14 |
| 1,1-Dichloroethene         |              | <14 |
| 1,1-Dichloroethane         |              | <14 |
| 1,2-Dichloroethene (Total) |              | <14 |
| Chloroform                 |              | <14 |
| 1,2-Dichloroethane         |              | <14 |
| 2-Butanone                 |              | <14 |
| 1,1,1-Trichloroethane      |              | <14 |
| Carbon tetrachloride       |              | <14 |
| Bromodichloromethane       |              | <14 |
| 1,1,2,2-Tetrachloroethane  |              | <14 |
| 1,2-Dichloropropane        |              | <14 |
| trans-1,3-Dichloropropene  |              | <14 |
| Trichloroethene            |              | <14 |
| Dibromochloromethane       |              | <14 |
| 1,1,2-Trichloroethane      |              | <14 |
| Benzene                    |              | <14 |
| cis-1,3-Dichloropropene    |              | <14 |
| Bromoform                  |              | <14 |
| 2-Hexanone                 |              | <14 |
| 4-Methyl-2-Pentanone       |              | <14 |
| Tetrachloroethene          |              | <14 |
| Toluene                    |              | <14 |
| Chlorobenzene              |              | <14 |
| Ethylbenzene               |              | <14 |
| Styrene                    |              | <14 |
| Total Xylenes              |              | <14 |

## RECOVERY DATA

## QC LIMITS

|                                   |         |     |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 104 |
| Toluene-d8 (Surrogate)            | 84-138% | 102 |
| 4-Bromofluorobenzene (Surrogate)  | 59-113% | 84  |

Analyst & Date of Analysis:

UVC 06/03



SAMPLE NO.  
1510.1

(ug/L or ug/Kg) \_\_\_\_\_ ug/Kg

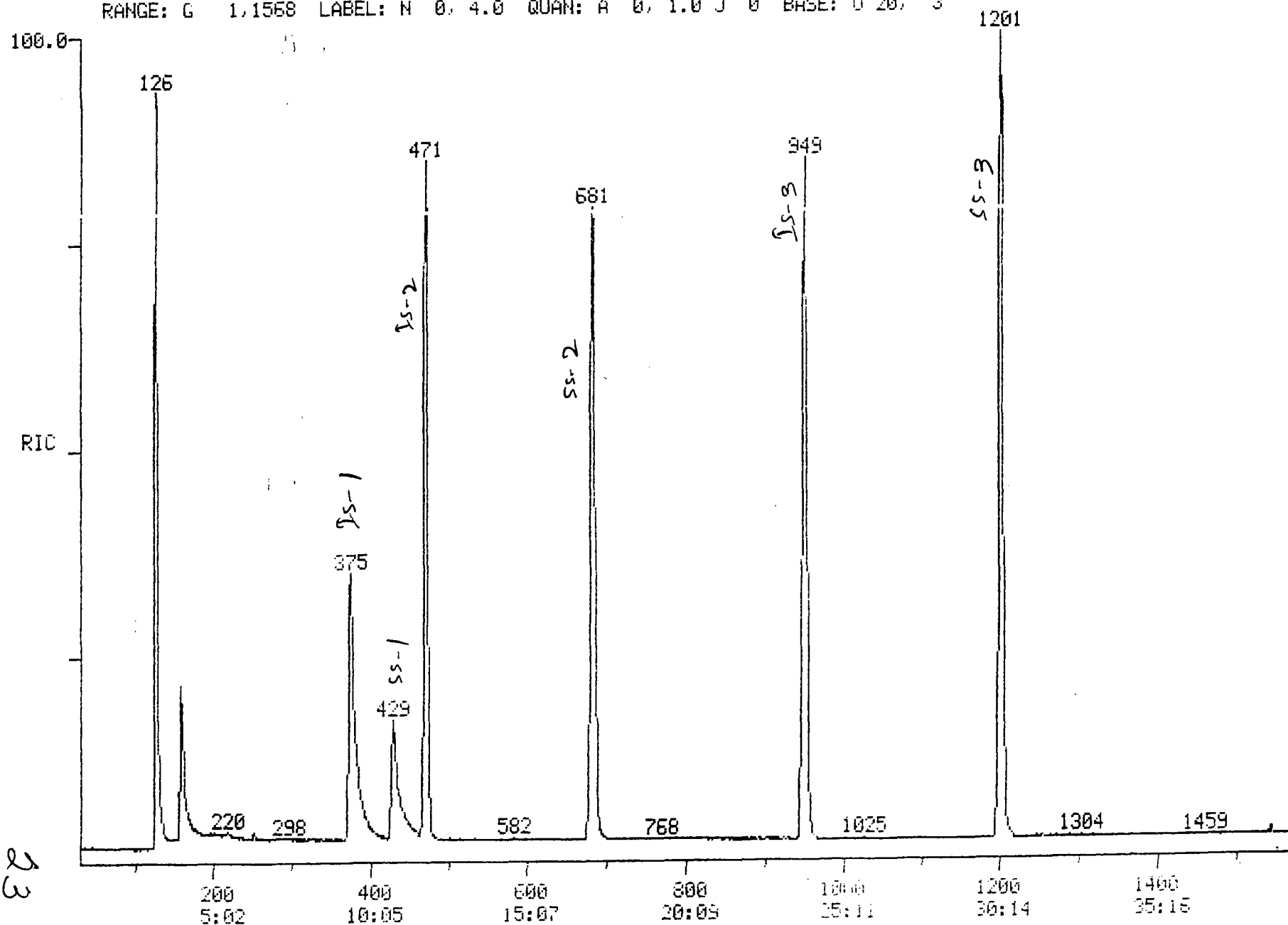
[illegible]

RIC  
06/03/94 14:58:00  
SAMPLE: 2817-001-01 1510.1  
CONDS.: EPA METHOD 8240  
RANGE: G 1.1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 07813 #48  
CALI: 07813 #0

SCANS 30 TO 1568

23712.



Quantitation Report File: C7813

Data: C7813.TI

06/03/94 14:58:00

Sample: 2817-001-01 1510.1

Conds.: EPA METHOD 8240

Formula: 2.5G/5ML

Submitted by: USARMY

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 2817-001

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | CI10 2-BUTANONE                         |
| 23 | CI15 1,1,1-TRICHLOROETHANE              |
| 24 | CI20 CARBON TETRACHLORIDE               |
| 25 | CI25 VINYL ACETATE                      |
| 26 | CI30 BROMO DICHLOROMETHANE              |
| 27 | CI40 1,2-DICHLOROPROPANE *              |
| 28 | CI45 TRANS-1,3 DICHLOROPROPENE          |
| 29 | CI50 TRICHLOROETHENE                    |
| 30 | CI55 DIBROMOCHLOROMETHANE               |
| 31 | CI60 1,1,2-TRICHLOROETHANE              |
| 32 | CI65 BENZENE                            |
| 33 | CI43 CIS-1,3-DICHLOROPROPENE            |
| 34 | CI75 2-CHLOROETHYL VINYL ETHER          |
| 35 | CI80 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROETHANE                 |

C7813

No Name  
48 C250 O-XYLENE

| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot  |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1  | 49        | 375  | 9:27  | 1   | 1.000 | A BB | 14386.     | 50.000 NG | 16.96 |
| 2  | 114       | 471  | 11:52 | 2   | 1.000 | A BB | 51260.     | 50.000 NG | 16.96 |
| 3  | 117       | 949  | 23:54 | 3   | 1.000 | A BB | 42977.     | 50.000 NG | 16.96 |
| 4  | 65        | 429  | 10:48 | 1   | 1.144 | A BB | 11316.     | 51.930 NG | 17.61 |
| 5  | 98        | 681  | 17:09 | 3   | 0.718 | A BB | 48634.     | 51.089 NG | 17.33 |
| 6  | 95        | 1201 | 30:15 | 3   | 1.266 | A BB | 33788.     | 42.066 NG | 14.27 |
| 7  | NOT FOUND |      |       |     |       |      |            |           |       |
| 8  | NOT FOUND |      |       |     |       |      |            |           |       |
| 9  | NOT FOUND |      |       |     |       |      |            |           |       |
| 10 | NOT FOUND |      |       |     |       |      |            |           |       |
| 11 | NOT FOUND |      |       |     |       |      |            |           |       |
| 12 | NOT FOUND |      |       |     |       |      |            |           |       |
| 13 | NOT FOUND |      |       |     |       |      |            |           |       |
| 14 | NOT FOUND |      |       |     |       |      |            |           |       |
| 15 | NOT FOUND |      |       |     |       |      |            |           |       |
| 16 | NOT FOUND |      |       |     |       |      |            |           |       |
| 17 | NOT FOUND |      |       |     |       |      |            |           |       |
| 18 | NOT FOUND |      |       |     |       |      |            |           |       |
| 19 | NOT FOUND |      |       |     |       |      |            |           |       |
| 20 | NOT FOUND |      |       |     |       |      |            |           |       |
| 21 | NOT FOUND |      |       |     |       |      |            |           |       |
| 22 | NOT FOUND |      |       |     |       |      |            |           |       |
| 23 | NOT FOUND |      |       |     |       |      |            |           |       |
| 24 | NOT FOUND |      |       |     |       |      |            |           |       |
| 25 | NOT FOUND |      |       |     |       |      |            |           |       |
| 26 | NOT FOUND |      |       |     |       |      |            |           |       |
| 27 | NOT FOUND |      |       |     |       |      |            |           |       |
| 28 | NOT FOUND |      |       |     |       |      |            |           |       |
| 29 | NOT FOUND |      |       |     |       |      |            |           |       |
| 30 | NOT FOUND |      |       |     |       |      |            |           |       |
| 31 | NOT FOUND |      |       |     |       |      |            |           |       |
| 32 | NOT FOUND |      |       |     |       |      |            |           |       |
| 33 | NOT FOUND |      |       |     |       |      |            |           |       |
| 34 | NOT FOUND |      |       |     |       |      |            |           |       |
| 35 | NOT FOUND |      |       |     |       |      |            |           |       |
| 36 | NOT FOUND |      |       |     |       |      |            |           |       |
| 37 | NOT FOUND |      |       |     |       |      |            |           |       |
| 38 | NOT FOUND |      |       |     |       |      |            |           |       |
| 39 | NOT FOUND |      |       |     |       |      |            |           |       |
| 40 | NOT FOUND |      |       |     |       |      |            |           |       |
| 41 | NOT FOUND |      |       |     |       |      |            |           |       |
| 42 | NOT FOUND |      |       |     |       |      |            |           |       |
| 43 | NOT FOUND |      |       |     |       |      |            |           |       |
| 44 | NOT FOUND |      |       |     |       |      |            |           |       |
| 45 | NOT FOUND |      |       |     |       |      |            |           |       |
| 46 | NOT FOUND |      |       |     |       |      |            |           |       |
| 47 | NOT FOUND |      |       |     |       |      |            |           |       |
| 48 | NOT FOUND |      |       |     |       |      |            |           |       |

104  
102  
84

PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

6/03/94 15:57:12

DATA FILE: C7813

FILTER SCAN PARAMETERS

MAX NUMBER TICS: 15  
1-TABLE ENTRIES: 528  
SCAN TOLERANCE: 2  
MIN. RIC HT. [%]: 10  
FIRST SCAN: 1  
LAST SCAN: 1600  
RIC THRESHOLD: 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS  
NBS SEARCH PROC: SERLIB  
PEAK FINDER PROC: VOME  
TCA I.S. LL: LS  
FILE NAME LIST: TCAREF2

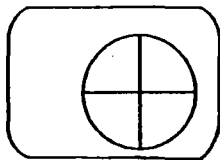
TARGET COMPOUND ANALYSIS:

| TARGETS<br>(QUAN LIST) | IS<br>PEAKS | TOTAL TARGET<br>PEAKS |
|------------------------|-------------|-----------------------|
| 3                      | 3           | 6                     |

FILTER PROCESSING:

| <-----REJECT PEAKS-----> |               |                |                 |               |                  |                  |               |
|--------------------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| TOTAL<br>PEAKS           | < 1ST<br>SCAN | > LAST<br>SCAN | < MIN<br>RIC HT | < SCAN<br>TOL | > MAX #<br>PEAKS | TOTAL<br>REJECTS | TOTAL<br>TICS |
| 6                        | 0             | 0              | 0               | 6             | 0                | 6                | 0             |

NO UNKNOWN PEAKS TO BE IDENTIFIED.



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U.S. Army, Fort Monmouth N.J.  
ATTN: SELFM-PW  
Building 167  
Fort Monmouth, New Jersey 07703-5108  
Attention: Charles Appleby  
Project Name: Bldg. 2000/1108

Report Date: 11/07/94  
Job Number: 9402817-001  
Date Received: 06/01/94

Page: 1

Analysis: Volatile Organics, SW, SW-846 8240  
Units: ug/kg

Parameters

Sample I.D.: 1510.2  
Site F-2  
Bldg. 2000

|                            |       |
|----------------------------|-------|
| Chloromethane              | <28   |
| Bromomethane               | <28   |
| Vinyl chloride             | <28   |
| Chloroethane               | <28   |
| Methylene chloride         | 8.2 J |
| Acetone                    | <14   |
| Carbon disulfide           | <14   |
| 1,1-Dichloroethene         | <14   |
| 1,1-Dichloroethane         | <14   |
| 1,2-Dichloroethene (Total) | <14   |
| Chloroform                 | <14   |
| 1,2-Dichloroethane         | <14   |
| 2-Butanone                 | <14   |
| 1,1,1-Trichloroethane      | <14   |
| Carbon tetrachloride       | <14   |
| Bromodichloromethane       | <14   |
| 1,1,2,2-Tetrachloroethane  | <14   |
| 1,2-Dichloropropane        | <14   |
| trans-1,3-Dichloropropene  | <14   |
| Trichloroethene            | <14   |
| Dibromochloromethane       | <14   |
| 1,1,2-Trichloroethane      | <14   |
| Benzene                    | <14   |
| cis-1,3-Dichloropropene    | <14   |
| Bromoform                  | <14   |
| 2-Hexanone                 | <14   |
| 4-Methyl-2-Pentanone       | <14   |
| Tetrachloroethene          | <14   |
| Toluene                    | <14   |
| Chlorobenzene              | <14   |
| Ethylbenzene               | <14   |
| Styrene                    | <14   |
| Total Xylenes              | <14   |

RECOVERY DATA

QC LIMITS

|                                   |         |     |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 70-121% | 107 |
| Toluene-d8 (Surrogate)            | 84-138% | 97  |
| 4-Bromofluorobenzene (Surrogate)  | 59-113% | 80  |

Analyst & Date of Analysis:

UVC 06/03

J = Estimated Value Detected Below MDL

|            |
|------------|
| SAMPLE NO. |
| 1510.2     |

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

|     | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | SCAN |
|-----|------------|---------------|----|------------|------|
| 1   |            |               |    |            |      |
| 2   |            |               |    |            |      |
| 3   |            |               |    |            |      |
| 4   |            |               |    |            |      |
| 5   |            |               |    |            |      |
| 6   |            |               |    |            |      |
| 7   |            |               |    |            |      |
| 8   |            |               |    |            |      |
| 9   |            |               |    |            |      |
| 10  |            |               |    |            |      |
| 11  |            |               |    |            |      |
| 12  |            |               |    |            |      |
| 13  |            |               |    |            |      |
| 14  |            |               |    |            |      |
| 15  |            |               |    |            |      |
| 16  |            |               |    |            |      |
| 17  |            |               |    |            |      |
| 18  |            |               |    |            |      |
| 19  |            |               |    |            |      |
| 20  |            |               |    |            |      |
| 21  |            |               |    |            |      |
| 22  |            |               |    |            |      |
| 23  |            |               |    |            |      |
| 24  |            |               |    |            |      |
| 25  |            |               |    |            |      |
| 26  |            |               |    |            |      |
| 27  |            |               |    |            |      |
| 28  |            |               |    |            |      |
| 29  |            |               |    |            |      |
| 30  |            |               |    |            |      |
| 31  |            |               |    |            |      |
| 32  |            |               |    |            |      |
| 33  |            |               |    |            |      |
| 34  |            |               |    |            |      |
| 35  |            |               |    |            |      |
| 36  |            |               |    |            |      |
| 37  |            |               |    |            |      |
| 38  |            |               |    |            |      |
| 39  |            |               |    |            |      |
| 40  |            |               |    |            |      |
| 41  |            |               |    |            |      |
| 42  |            |               |    |            |      |
| 43  |            |               |    |            |      |
| 44  |            |               |    |            |      |
| 45  |            |               |    |            |      |
| 46  |            |               |    |            |      |
| 47  |            |               |    |            |      |
| 48  |            |               |    |            |      |
| 49  |            |               |    |            |      |
| 50  |            |               |    |            |      |
| 51  |            |               |    |            |      |
| 52  |            |               |    |            |      |
| 53  |            |               |    |            |      |
| 54  |            |               |    |            |      |
| 55  |            |               |    |            |      |
| 56  |            |               |    |            |      |
| 57  |            |               |    |            |      |
| 58  |            |               |    |            |      |
| 59  |            |               |    |            |      |
| 60  |            |               |    |            |      |
| 61  |            |               |    |            |      |
| 62  |            |               |    |            |      |
| 63  |            |               |    |            |      |
| 64  |            |               |    |            |      |
| 65  |            |               |    |            |      |
| 66  |            |               |    |            |      |
| 67  |            |               |    |            |      |
| 68  |            |               |    |            |      |
| 69  |            |               |    |            |      |
| 70  |            |               |    |            |      |
| 71  |            |               |    |            |      |
| 72  |            |               |    |            |      |
| 73  |            |               |    |            |      |
| 74  |            |               |    |            |      |
| 75  |            |               |    |            |      |
| 76  |            |               |    |            |      |
| 77  |            |               |    |            |      |
| 78  |            |               |    |            |      |
| 79  |            |               |    |            |      |
| 80  |            |               |    |            |      |
| 81  |            |               |    |            |      |
| 82  |            |               |    |            |      |
| 83  |            |               |    |            |      |
| 84  |            |               |    |            |      |
| 85  |            |               |    |            |      |
| 86  |            |               |    |            |      |
| 87  |            |               |    |            |      |
| 88  |            |               |    |            |      |
| 89  |            |               |    |            |      |
| 90  |            |               |    |            |      |
| 91  |            |               |    |            |      |
| 92  |            |               |    |            |      |
| 93  |            |               |    |            |      |
| 94  |            |               |    |            |      |
| 95  |            |               |    |            |      |
| 96  |            |               |    |            |      |
| 97  |            |               |    |            |      |
| 98  |            |               |    |            |      |
| 99  |            |               |    |            |      |
| 100 |            |               |    |            |      |

RIC

06/03/94 15:48:00

SAMPLE: 2817-001-02 1510.2

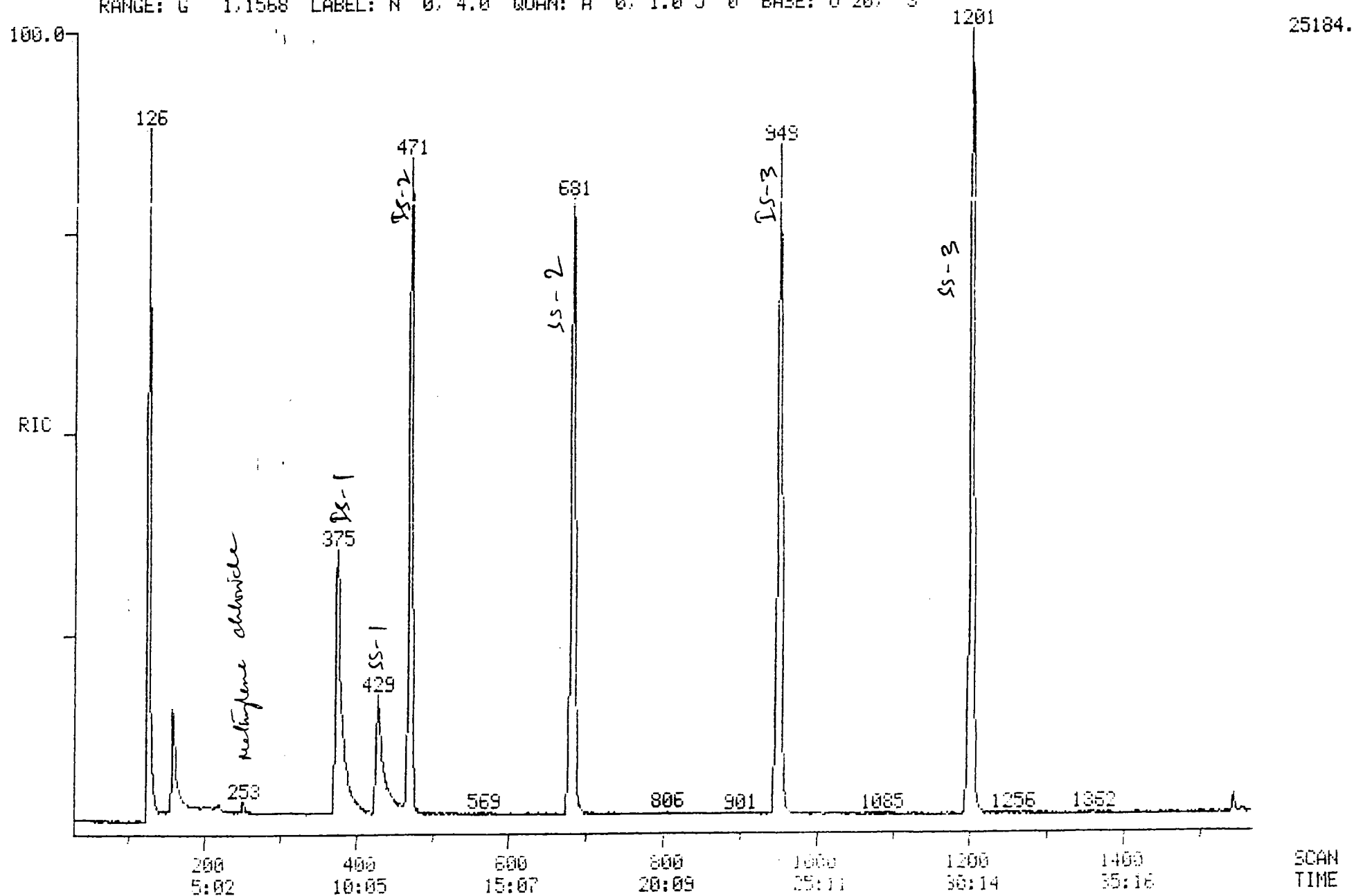
CONDS.: EPA METHOD 8240

RANGE: G 1.1568 LABEL: N 0. 4.0 QUAN: A 0. 1.0 J 0 BASE: U 20. 3

DATA: C7814 #48

SCANS 30 TO 1568

CALI: C7814 #3





Quantitation Report File: C7814

Data: C7814.TI

06/03/94 15:48:00

Sample: 2817-001-02 1510.2

Conditions: EPA METHOD 8240

Formula: 2.5G/5ML

Submitted by: USARMY

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 2817-001

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | C110 2-BUTANONE                         |
| 23 | C115 1,1,1-TRICHLOROETHANE              |
| 24 | C120 CARBON TETRACHLORIDE               |
| 25 | C125 VINYL ACETATE                      |
| 26 | C130 BROMO DICHLOROMETHANE              |
| 27 | C140 1,2-DICHLOROPROPANE *              |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE          |
| 29 | C150 TRICHLOROETHENE                    |
| 30 | C155 DIBROMOCHLOROMETHANE               |
| 31 | C160 1,1,2-TRICHLOROETHANE              |
| 32 | C165 BENZENE                            |
| 33 | C143 CIS-1,3-DICHLOROPROPENE            |
| 34 | C175 2-CHLOROETHYL VINYL ETHER          |
| 35 | C180 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROETHANE                 |

c7814

No Name  
48 C250 O-XYLENE

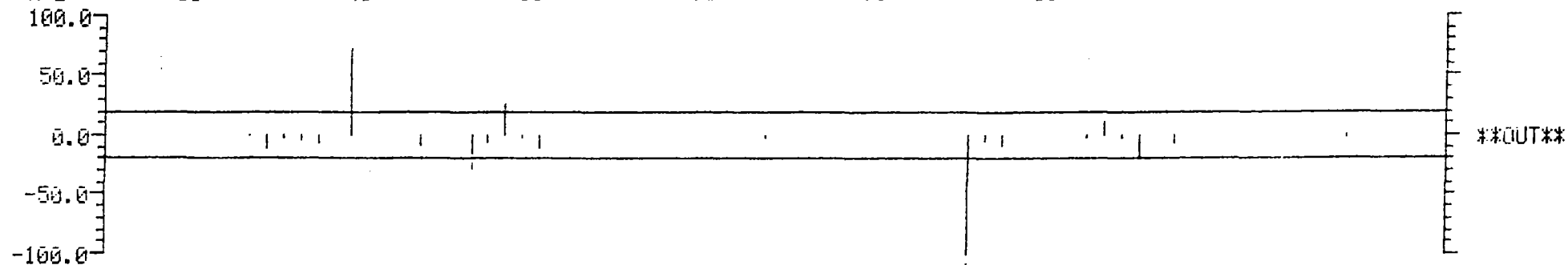
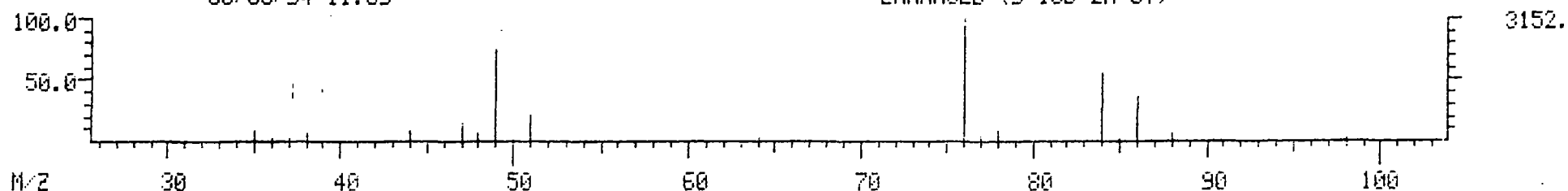
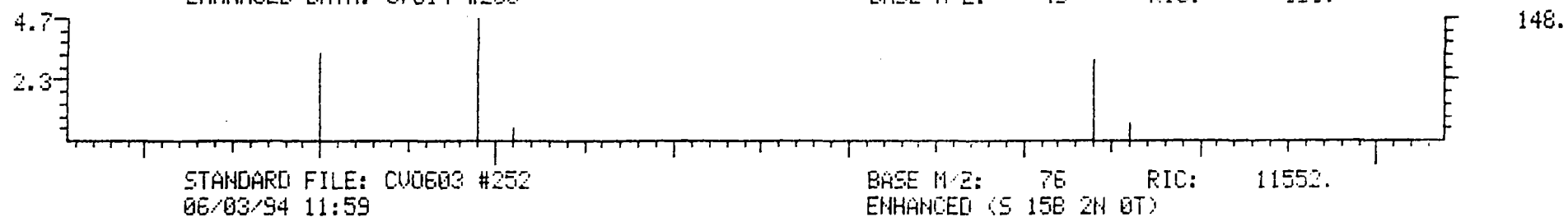
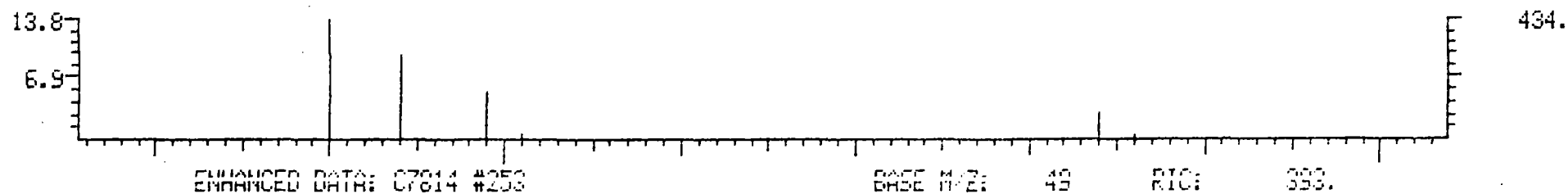
| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot  |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1  | 49        | 375  | 9:27  | 1   | 1.000 | A BB | 15732.     | 50.000 NG | 16.97 |
| 2  | 114       | 471  | 11:52 | 2   | 1.000 | A BB | 52867.     | 50.000 NG | 16.97 |
| 3  | 117       | 949  | 23:54 | 3   | 1.000 | A BB | 47711.     | 50.000 NG | 16.97 |
| 4  | 55        | 429  | 10:48 | 1   | 1.144 | A BB | 12766.     | 53.570 NG | 18.18 |
| 5  | 98        | 681  | 17:09 | 3   | 0.718 | A BB | 51055.     | 48.310 NG | 16.39 |
| 6  | 95        | 1201 | 30:15 | 3   | 1.266 | A BB | 35788.     | 40.134 NG | 13.62 |
| 7  | NOT FOUND |      |       |     |       |      |            |           |       |
| 8  | NOT FOUND |      |       |     |       |      |            |           |       |
| 9  | NOT FOUND |      |       |     |       |      |            |           |       |
| 10 | NOT FOUND |      |       |     |       |      |            |           |       |
| 11 | 49        | 253  | 6:22  | 1   | 0.675 | A BB | 870.       | 2.900 NG  | 0.98  |
| 12 | NOT FOUND |      |       |     |       |      |            |           |       |
| 13 | NOT FOUND |      |       |     |       |      |            |           |       |
| 14 | NOT FOUND |      |       |     |       |      |            |           |       |
| 15 | NOT FOUND |      |       |     |       |      |            |           |       |
| 16 | NOT FOUND |      |       |     |       |      |            |           |       |
| 17 | NOT FOUND |      |       |     |       |      |            |           |       |
| 18 | NOT FOUND |      |       |     |       |      |            |           |       |
| 19 | NOT FOUND |      |       |     |       |      |            |           |       |
| 20 | NOT FOUND |      |       |     |       |      |            |           |       |
| 21 | NOT FOUND |      |       |     |       |      |            |           |       |
| 22 | NOT FOUND |      |       |     |       |      |            |           |       |
| 23 | NOT FOUND |      |       |     |       |      |            |           |       |
| 24 | NOT FOUND |      |       |     |       |      |            |           |       |
| 25 | NOT FOUND |      |       |     |       |      |            |           |       |
| 26 | NOT FOUND |      |       |     |       |      |            |           |       |
| 27 | NOT FOUND |      |       |     |       |      |            |           |       |
| 28 | NOT FOUND |      |       |     |       |      |            |           |       |
| 29 | NOT FOUND |      |       |     |       |      |            |           |       |
| 30 | NOT FOUND |      |       |     |       |      |            |           |       |
| 31 | NOT FOUND |      |       |     |       |      |            |           |       |
| 32 | NOT FOUND |      |       |     |       |      |            |           |       |
| 33 | NOT FOUND |      |       |     |       |      |            |           |       |
| 34 | NOT FOUND |      |       |     |       |      |            |           |       |
| 35 | NOT FOUND |      |       |     |       |      |            |           |       |
| 36 | NOT FOUND |      |       |     |       |      |            |           |       |
| 37 | NOT FOUND |      |       |     |       |      |            |           |       |
| 38 | NOT FOUND |      |       |     |       |      |            |           |       |
| 39 | NOT FOUND |      |       |     |       |      |            |           |       |
| 40 | NOT FOUND |      |       |     |       |      |            |           |       |
| 41 | NOT FOUND |      |       |     |       |      |            |           |       |
| 42 | NOT FOUND |      |       |     |       |      |            |           |       |
| 43 | NOT FOUND |      |       |     |       |      |            |           |       |
| 44 | NOT FOUND |      |       |     |       |      |            |           |       |
| 45 | NOT FOUND |      |       |     |       |      |            |           |       |
| 46 | NOT FOUND |      |       |     |       |      |            |           |       |
| 47 | NOT FOUND |      |       |     |       |      |            |           |       |
| 48 | NOT FOUND |      |       |     |       |      |            |           |       |

DATA FILE: C7814 #253  
TARGET COMPOUND COMPARISON  
COMPOUND: C030 METHYLENE CHLORIDE

STANDARD FILE: C00603 #252  
CALI: C7814 #3

RAW DATA: C7814 #253  
06/03/94 15:48

BASE M/Z: 40 RIC: 1030.



\*\*OUT\*\*

w  
b

PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

6/03/94 16:48:13

DATA FILE: C7814

FILTER SCAN PARAMETERS

MAX NUMBER TICS: 15  
1-TABLE ENTRIES: 528  
SCAN TOLERANCE: 2  
MIN. RIC HT. [%]: 10  
FIRST SCAN: 1  
LAST SCAN: 1600  
TIC THRESHOLD: 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS  
NBS SEARCH PROC: SERLIB  
PEAK FINDER PROC: VOME  
TCA I.S. LL: LS  
FILE NAME LIST: TCAREF2

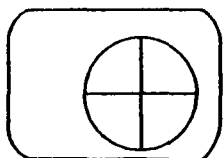
TARGET COMPOUND ANALYSIS:

| TARGETS<br>(QUAN LIST) | IS<br>PEAKS | TOTAL TARGET<br>PEAKS |
|------------------------|-------------|-----------------------|
| 4                      | 3           | 7                     |

FILTER PROCESSING:

| -----REJECT PEAKS----- |               |                |                 |               |                  |                  |               |
|------------------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| TOTAL<br>PEAKS         | < 1ST<br>SCAN | > LAST<br>SCAN | < MIN<br>RIC HT | < SCAN<br>TOL | > MAX #<br>PEAKS | TOTAL<br>REJECTS | TOTAL<br>TICS |
| 8                      | 0             | 0              | 1               | 7             | 0                | 8                | 0             |

NO UNKNOWN PEAKS TO BE IDENTIFIED.



# Princeton Testing Laboratory Inc.

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3490 U.S. Route 1  
Princeton, NJ 08543-3108  
(609) 452-9050  
(FAX) (609) 452-1959

U.S. Army, Fort Monmouth N.J.  
ATTN: SELFM-PW  
Building 167  
Fort Monmouth, New Jersey 07703-5108  
Attention: Charles Appleby  
Project Name: Bldg. 2000/1108

Report Date: 11/30/94  
Job Number: 9402817-001  
Date Received: 06/01/94

Page: 1

Analysis: Volatile Organics, WW, SW-846 8240  
Units: ug/liter

## Parameters

Sample I.D.: 1511.2 5/31/94  
Field Blank  
Bldg. 1108/2000

|                            |      |
|----------------------------|------|
| Chloromethane              | <10  |
| Bromomethane               | <10  |
| Vinyl chloride             | <10  |
| Chloroethane               | <10  |
| Methylene chloride         | <5.0 |
| Acetone                    | <5.0 |
| Carbon disulfide           | <5.0 |
| 1,1-Dichloroethene         | <5.0 |
| 1,1-Dichloroethane         | <5.0 |
| 1,2-Dichloroethene (Total) | <5.0 |
| Chloroform                 | <5.0 |
| 1,2-Dichloroethane         | <5.0 |
| 2-Butanone                 | <5.0 |
| 1,1,1-Trichloroethane      | <5.0 |
| Carbon tetrachloride       | <5.0 |
| Bromodichloromethane       | <5.0 |
| 1,1,2,2-Tetrachloroethane  | <5.0 |
| 1,2-Dichloropropane        | <5.0 |
| trans-1,3-Dichloropropene  | <5.0 |
| Trichloroethene            | <5.0 |
| Dibromochloromethane       | <5.0 |
| 1,1,2-Trichloroethane      | <5.0 |
| Benzene                    | <5.0 |
| cis-1,3-Dichloropropene    | <5.0 |
| Bromoform                  | <5.0 |
| 2-Hexanone                 | <5.0 |
| 4-Methyl-2-Pentanone       | <5.0 |
| Tetrachloroethene          | <5.0 |
| Toluene                    | <5.0 |
| Chlorobenzene              | <5.0 |
| Ethylbenzene               | <5.0 |
| Styrene                    | <5.0 |
| Total Xylenes              | <5.0 |

## RECOVERY DATA

## QC LIMITS

|                                   |         |     |
|-----------------------------------|---------|-----|
| 1,2-Dichloroethane-d4 (Surrogate) | 76-114% | 106 |
| Toluene-d8 (Surrogate)            | 88-110% | 102 |
| 4-Bromofluorobenzene (Surrogate)  | 86-115% | 81  |

SAMPLE NO.  
1511.2

Lab Code: PTL Case No.: 2817 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: C7812

%Moisture: not dec. \_\_\_\_\_ Date Analyzed: 6/3/94

Soil Extract Vol: \_\_\_\_\_ ul      Soil Aliquot Vol: \_\_\_\_\_ ul

Number TICs found: 0 CONCENTRATION UNITS:  
(ug/L or ug/kg) ug/L

| CAS NUMBER | COMPOUND NAME            | RT   | EST. CONC. | SCAN |
|------------|--------------------------|------|------------|------|
| 100-00-0   | ACETONE                  | 1.2  | 100        | 100  |
| 71-43-2    | BENZENE                  | 1.5  | 50         | 100  |
| 64-17-5    | ETHANOL                  | 1.8  | 20         | 100  |
| 78-06-2    | HEXANE                   | 2.1  | 10         | 100  |
| 108-90-7   | ISOPROPYL ALCOHOL        | 2.4  | 15         | 100  |
| 100-51-8   | METHANOL                 | 2.7  | 10         | 100  |
| 106-96-8   | 2-PENTANONE              | 3.0  | 5          | 100  |
| 100-82-9   | DIETHYL ETHER            | 3.3  | 5          | 100  |
| 100-52-7   | METHYL ETHYL ETHER       | 3.6  | 5          | 100  |
| 100-54-8   | METHYL BUTYL ETHER       | 3.9  | 5          | 100  |
| 100-55-9   | METHYL AMYL ETHER        | 4.2  | 5          | 100  |
| 100-56-0   | METHYL HEXYL ETHER       | 4.5  | 5          | 100  |
| 100-57-1   | METHYL OCTYL ETHER       | 4.8  | 5          | 100  |
| 100-58-2   | METHYL DODECYL ETHER     | 5.1  | 5          | 100  |
| 100-59-3   | METHYL MYRISTYL ETHER    | 5.4  | 5          | 100  |
| 100-60-4   | METHYL LAURYL ETHER      | 5.7  | 5          | 100  |
| 100-61-5   | METHYL OCTADECYL ETHER   | 6.0  | 5          | 100  |
| 100-62-6   | METHYL EICOSYL ETHER     | 6.3  | 5          | 100  |
| 100-63-7   | METHYL DOTRIACOSYL ETHER | 6.6  | 5          | 100  |
| 100-64-8   | METHYL TETRACOSYL ETHER  | 6.9  | 5          | 100  |
| 100-65-9   | METHYL PENTACOSYL ETHER  | 7.2  | 5          | 100  |
| 100-66-0   | METHYL HEXACOSYL ETHER   | 7.5  | 5          | 100  |
| 100-67-1   | METHYL HEPTACOSYL ETHER  | 7.8  | 5          | 100  |
| 100-68-2   | METHYL OCTACOSYL ETHER   | 8.1  | 5          | 100  |
| 100-69-3   | METHYL NONACOSYL ETHER   | 8.4  | 5          | 100  |
| 100-70-4   | METHYLtriacontyl Ether   | 8.7  | 5          | 100  |
| 100-71-5   | METHYLheptacosyl Ether   | 9.0  | 5          | 100  |
| 100-72-6   | METHYLpentacosyl Ether   | 9.3  | 5          | 100  |
| 100-73-7   | METHYLtriacontyl Ether   | 9.6  | 5          | 100  |
| 100-74-8   | METHYLheptacosyl Ether   | 9.9  | 5          | 100  |
| 100-75-9   | METHYLpentacosyl Ether   | 10.2 | 5          | 100  |
| 100-76-0   | METHYLtriacontyl Ether   | 10.5 | 5          | 100  |
| 100-77-1   | METHYLheptacosyl Ether   | 10.8 | 5          | 100  |
| 100-78-2   | METHYLpentacosyl Ether   | 11.1 | 5          | 100  |
| 100-79-3   | METHYLtriacontyl Ether   | 11.4 | 5          | 100  |
| 100-80-4   | METHYLheptacosyl Ether   | 11.7 | 5          | 100  |
| 100-81-5   | METHYLpentacosyl Ether   | 12.0 | 5          | 100  |
| 100-82-6   | METHYLtriacontyl Ether   | 12.3 | 5          | 100  |
| 100-83-7   | METHYLheptacosyl Ether   | 12.6 | 5          | 100  |
| 100-84-8   | METHYLpentacosyl Ether   | 12.9 | 5          | 100  |
| 100-85-9   | METHYLtriacontyl Ether   | 13.2 | 5          | 100  |
| 100-86-0   | METHYLheptacosyl Ether   | 13.5 | 5          | 100  |
| 100-87-1   | METHYLpentacosyl Ether   | 13.8 | 5          | 100  |
| 100-88-2   | METHYLtriacontyl Ether   | 14.1 | 5          | 100  |
| 100-89-3   | METHYLheptacosyl Ether   | 14.4 | 5          | 100  |
| 100-90-4   | METHYLpentacosyl Ether   | 14.7 | 5          | 100  |
| 100-91-5   | METHYLtriacontyl Ether   | 15.0 | 5          | 100  |
| 100-92-6   | METHYLheptacosyl Ether   | 15.3 | 5          | 100  |
| 100-93-7   | METHYLpentacosyl Ether   | 15.6 | 5          | 100  |
| 100-94-8   | METHYLtriacontyl Ether   | 15.9 | 5          | 100  |
| 100-95-9   | METHYLheptacosyl Ether   | 16.2 | 5          | 100  |
| 100-96-0   | METHYLpentacosyl Ether   | 16.5 | 5          | 100  |
| 100-97-1   | METHYLtriacontyl Ether   | 16.8 | 5          | 100  |
| 100-98-2   | METHYLheptacosyl Ether   | 17.1 | 5          | 100  |
| 100-99-3   | METHYLpentacosyl Ether   | 17.4 | 5          | 100  |
| 100-100-4  | METHYLtriacontyl Ether   | 17.7 | 5          | 100  |
| 100-101-5  | METHYLheptacosyl Ether   | 18.0 | 5          | 100  |
| 100-102-6  | METHYLpentacosyl Ether   | 18.3 | 5          | 100  |
| 100-103-7  | METHYLtriacontyl Ether   | 18.6 | 5          | 100  |
| 100-104-8  | METHYLheptacosyl Ether   | 18.9 | 5          | 100  |
| 100-105-9  | METHYLpentacosyl Ether   | 19.2 | 5          | 100  |
| 100-106-0  | METHYLtriacontyl Ether   | 19.5 | 5          | 100  |
| 100-107-1  | METHYLheptacosyl Ether   | 19.8 | 5          | 100  |
| 100-108-2  | METHYLpentacosyl Ether   | 20.1 | 5          | 100  |
| 100-109-3  | METHYLtriacontyl Ether   | 20.4 | 5          | 100  |
| 100-110-4  | METHYLheptacosyl Ether   | 20.7 | 5          | 100  |
| 100-111-5  | METHYLpentacosyl Ether   | 21.0 | 5          | 100  |
| 100-112-6  | METHYLtriacontyl Ether   | 21.3 | 5          | 100  |
| 100-113-7  | METHYLheptacosyl Ether   | 21.6 | 5          | 100  |
| 100-114-8  | METHYLpentacosyl Ether   | 21.9 | 5          | 100  |
| 100-115-9  | METHYLtriacontyl Ether   | 22.2 | 5          | 100  |
| 100-116-0  | METHYLheptacosyl Ether   | 22.5 | 5          | 100  |
| 100-117-1  | METHYLpentacosyl Ether   | 22.8 | 5          | 100  |
| 100-118-2  | METHYLtriacontyl Ether   | 23.1 | 5          | 100  |
| 100-119-3  | METHYLheptacosyl Ether   | 23.4 | 5          | 100  |
| 100-120-4  | METHYLpentacosyl Ether   | 23.7 | 5          | 100  |

RIC

06/03/94 14:08:00

SAMPLE: 2817-001-03 BLANK 1511.2

COND: EPI METHOD 8240

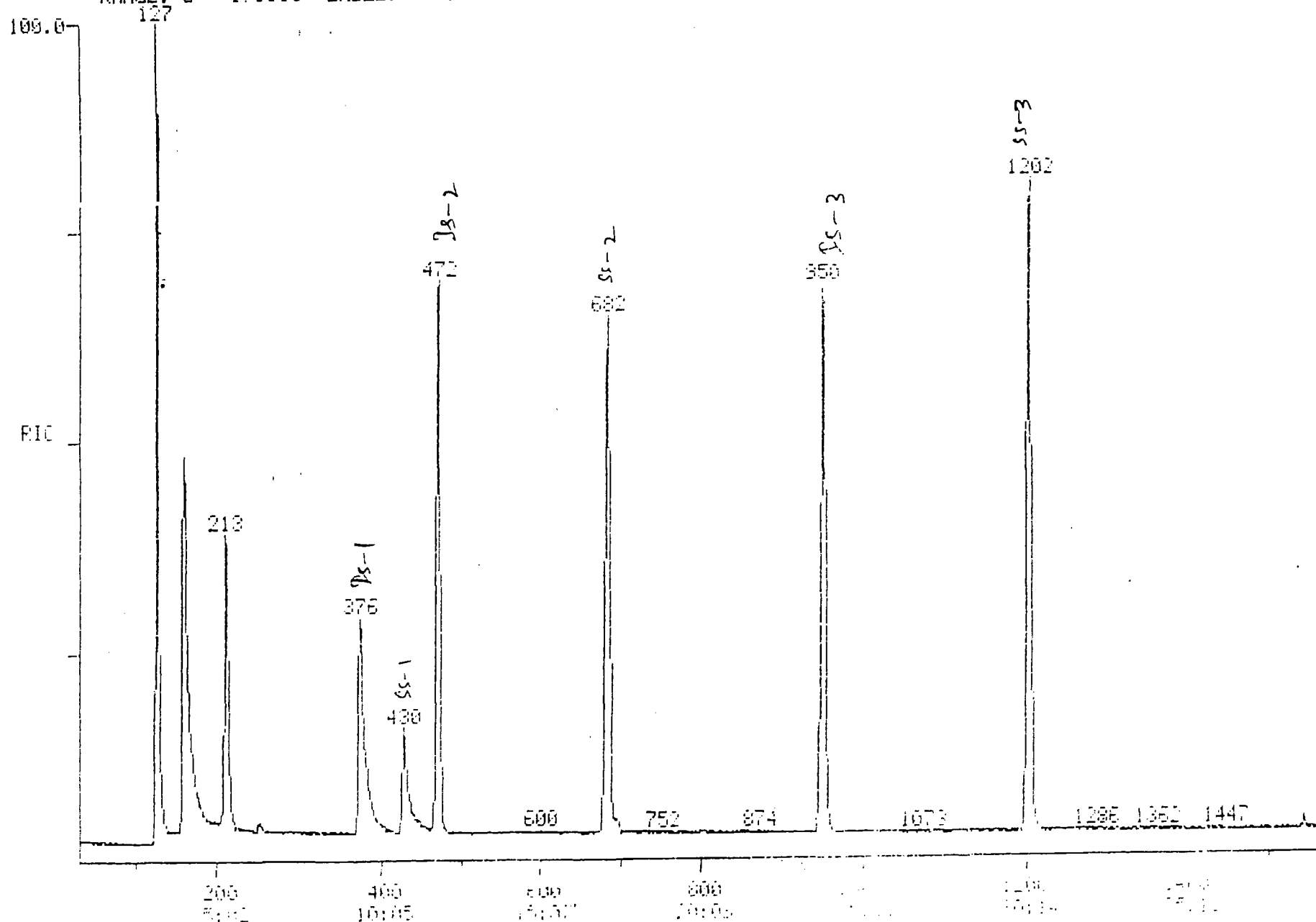
RANGE: 0 1.1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: 0.20 3

DATA: 07812 #48

SCAN: 30 TO 1568

CALI: 07812 #3

20050



Quantitation Report File: 07812

Date: 07812.TI

06/03/94 14:08:00

Sample: 2817-001-03 BLANK 1511.2

Conds.: EPA METHOD 8240

Formula: SML

Instrument: FINN

Weight 0.000

Submitted by: USARMY

Analyst: DC

Acct. No.: 2817-001

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT,  
Resp. Fac From Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | CO51 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | CO52 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | CI10 2-BUTANONE                         |
| 23 | CI15 1,1,1-TRICHLOROETHANE              |
| 24 | CI20 CARBON TETRACHLORIDE               |
| 25 | CI25 VINYL ACETATE                      |
| 26 | CI30 BROMO DICHLOROMETHANE              |
| 27 | CI40 1,2-DICHLOROPROPANE *              |
| 28 | CI45 TRANS-1,3 DICHLOROPROPENE          |
| 29 | CI50 TRICHLOROETHENE                    |
| 30 | CI55 DIBROMOCHLOROMETHANE               |
| 31 | CI60 1,1,2-TRICHLOROETHANE              |
| 32 | CI65 BENZENE                            |
| 33 | CI43 CIS-1,3-DICHLOROPROPENE            |
| 34 | CI75 2-CHLOROETHYL VINYL ETHER          |
| 35 | CI80 BROMOFORM **                       |
| 36 | CO20 TETRACHLOROETHENE                  |
| 37 | CO10 2-HEXANONE                         |
| 38 | CO05 4-METHYL 2-PENTANONE               |
| 39 | CO25 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | CO30 TOLUENE *                          |
| 41 | CO35 CHLOROBENZENE **                   |
| 42 | CO40 ETHYL BENZENE *                    |
| 43 | CO45 STYRENE                            |
| 44 | CO50 M+P-XYLENES                        |
| 45 | CO53 1,3-DICHLOROBENZENE                |
| 46 | CO54 1,4-DICHLOROBENZENE                |



c7812

No Name  
43 C250 O-XYLENE

| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area (Height) | Amount    | %Tot  |
|----|-----------|------|-------|-----|-------|------|---------------|-----------|-------|
| 1  | 49        | 376  | 9:28  | 1   | 1.000 | A BB | 10155.        | 50.000 NG | 16.94 |
| 2  | 114       | 472  | 11:53 | 2   | 1.000 | A BB | 35753.        | 50.000 NG | 16.94 |
| 3  | 117       | 950  | 23:55 | 3   | 1.000 | A BB | 30895.        | 50.000 NG | 16.94 |
| 4  | 55        | 430  | 10:50 | 1   | 1.144 | A BB | 8121          | 52.798 NG | 17.89 |
| 5  | 98        | 682  | 17:11 | 3   | 0.718 | A BB | 34812.        | 50.889 NG | 17.23 |
| 6  | 95        | 1202 | 30:17 | 3   | 1.265 | A BB | 23416.        | 40.553 NG | 13.74 |
| 7  | NOT FOUND |      |       |     |       |      |               |           |       |
| 8  | NOT FOUND |      |       |     |       |      |               |           |       |
| 9  | NOT FOUND |      |       |     |       |      |               |           |       |
| 10 | NOT FOUND |      |       |     |       |      |               |           |       |
| 11 | NOT FOUND |      |       |     |       |      |               |           |       |
| 12 | NOT FOUND |      |       |     |       |      |               |           |       |
| 13 | NOT FOUND |      |       |     |       |      |               |           |       |
| 14 | NOT FOUND |      |       |     |       |      |               |           |       |
| 15 | NOT FOUND |      |       |     |       |      |               |           |       |
| 16 | NOT FOUND |      |       |     |       |      |               |           |       |
| 17 | NOT FOUND |      |       |     |       |      |               |           |       |
| 18 | NOT FOUND |      |       |     |       |      |               |           |       |
| 19 | NOT FOUND |      |       |     |       |      |               |           |       |
| 20 | NOT FOUND |      |       |     |       |      |               |           |       |
| 21 | NOT FOUND |      |       |     |       |      |               |           |       |
| 22 | NOT FOUND |      |       |     |       |      |               |           |       |
| 23 | NOT FOUND |      |       |     |       |      |               |           |       |
| 24 | NOT FOUND |      |       |     |       |      |               |           |       |
| 25 | NOT FOUND |      |       |     |       |      |               |           |       |
| 26 | NOT FOUND |      |       |     |       |      |               |           |       |
| 27 | NOT FOUND |      |       |     |       |      |               |           |       |
| 28 | NOT FOUND |      |       |     |       |      |               |           |       |
| 29 | NOT FOUND |      |       |     |       |      |               |           |       |
| 30 | NOT FOUND |      |       |     |       |      |               |           |       |
| 31 | NOT FOUND |      |       |     |       |      |               |           |       |
| 32 | NOT FOUND |      |       |     |       |      |               |           |       |
| 33 | NOT FOUND |      |       |     |       |      |               |           |       |
| 34 | NOT FOUND |      |       |     |       |      |               |           |       |
| 35 | NOT FOUND |      |       |     |       |      |               |           |       |
| 36 | NOT FOUND |      |       |     |       |      |               |           |       |
| 37 | NOT FOUND |      |       |     |       |      |               |           |       |
| 38 | NOT FOUND |      |       |     |       |      |               |           |       |
| 39 | NOT FOUND |      |       |     |       |      |               |           |       |
| 40 | 91        | 695  | 17:30 | 3   | 0.732 | A BB | 926           | 1.339 NG  | 0.45  |
| 41 | NOT FOUND |      |       |     |       |      |               |           |       |
| 42 | NOT FOUND |      |       |     |       |      |               |           |       |
| 43 | NOT FOUND |      |       |     |       |      |               |           |       |
| 44 | NOT FOUND |      |       |     |       |      |               |           |       |
| 45 | NOT FOUND |      |       |     |       |      |               |           |       |
| 46 | NOT FOUND |      |       |     |       |      |               |           |       |
| 47 | NOT FOUND |      |       |     |       |      |               |           |       |
| 48 | NOT FOUND |      |       |     |       |      |               |           |       |

106  
102  
81

DATA FILE: C7812

## FILTER SCAN PARAMETERS

MAX NUMBER TICS: 15  
1-TABLE ENTRIES: 528  
SCAN TOLERANCE: 2  
MIN RIC HT. [%]: 10  
FIRST SCAN: 1  
LAST SCAN: 1600  
TIC THRESHOLD: 600

## METHOD LIBRARY &amp; LISTS

TIC I.S. LIBRARY: LIBRARY/LS  
NBS SEARCH PROC: SERLIB  
PEAK FINDER PROC: VOME  
TCA I.S. LL: LS  
FILE NAME LIST: TCAREF2

## TARGET COMPOUND ANALYSIS:

| TARGETS<br>(QUAN LIST) | IS<br>PEAKS | TOTAL TARGET<br>PEAKS |
|------------------------|-------------|-----------------------|
| 4                      | 3           | 7                     |

## FILTER PROCESSING:

| -----REJECT PEAKS----- |               |                |                 |               |                  |                  |               |
|------------------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| TOTAL<br>PEAKS         | < 1ST<br>SCAN | > LAST<br>SCAN | < MIN<br>RIC HT | < SCAN<br>TOL | > MAX #<br>PEAKS | TOTAL<br>REJECTS | TOTAL<br>TICS |
| 8                      | 0             | 0              | 0               | 6             | 0                | 6                | 2             |

## TIC PROCESSING:

| ID | SCAN# | PURITY | FIT | MW  | COMPOUND NAME [BEFORE TIC THRESHOLD] |
|----|-------|--------|-----|-----|--------------------------------------|
| 1  | 160   | 326    | 463 | 76  | ETHANETHIOIC ACID                    |
| 2  | 213   | 966    | 988 | 186 | ETHANE, 1,1,2-TRICHLORO-1,2,2-       |

Quantitation Report File: 07812

Data: 07812.TI

08/03/94 14:08:00

Sample: 2817-001-03 BLANK 1511.2

Conds.: EPA METHOD 8240

Formula: GML

Instrument: FINN

Weight: 0.000

Submitted by: USARMY

Analyst: UC

Acct. No.: 2817-001

MOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

esp. fac. from Library Entry

| No | CAS #   | Name                                     |
|----|---------|------------------------------------------|
| 1  | 0-00-0  | CI01 BROMOCHLOROMETHANE **INT. STD.**    |
| 2  | 0-00-0  | CI10 1,4-DIFLUOROBENZENE **INT. STD.**   |
| 3  | 0-00-0  | CI20 CHLOROBENZENE-D5 **INT. STD.**      |
| 4  | 0-00-0  | UNKNOWN                                  |
| 5  | 76-13-1 | ETHANE, 1,1,2-TRICHLORO-1,2,2-TRIFLUORO- |

| No | Wt  | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount     | %Tot  |
|----|-----|------|-------|-----|-------|------|------------|------------|-------|
| 1  | TOT | 376  | 9:28  | 0   | ISINV | A BB | 35982.     | ***** UG/L | 00.00 |
| 2  | TOT | 472  | 11:53 | 0   | ISINV | A BB | 68834.     | ***** UG/L | 00.00 |
| 3  | TOT | 950  | 23:55 | 0   | ISINV | A BB | 71604.     | ***** UG/L | 00.00 |
| 4  | TOT | 161  | 4:03  | 1   | 0.428 | A BB | 66833.     | 92.870     | 65.50 |
| 5  | TOT | 213  | 5:22  | 1   | 0.566 | A BB | 35204.     | 48.919     | 34.50 |

| No | Ret(L) | Ratio | RRT(L) | Ratio | Amnt  | Amnt(L) | R. Fac | R. Fac(L) | Ratio |
|----|--------|-------|--------|-------|-------|---------|--------|-----------|-------|
| 1  | 9:13   | 1.03  | 1.000  |       |       |         |        |           |       |
| 2  | 19:21  | 0.61  | 1.000  |       |       |         |        |           |       |
| 3  | 23:54  | 1.00  | 1.000  |       |       |         |        |           |       |
| 4  |        |       |        |       | 92.87 | 1.00    | 92.870 | 1.000     | 92.87 |
| 5  |        |       |        |       | 48.92 | 1.00    | 48.919 | 1.000     | 48.92 |

MID LIBRARY SEARCH (LIBRARY#)  
 06/03/94 14:08:00 + 4:02  
 SAMPLE: 2817-001-03 BLANK 1511.2  
 CONDS.: EPA METHOD 8240  
 ENHANCED (S 15S 2N 0T)

DATA: 07812 # 160  
 CALI: 07812 # 3

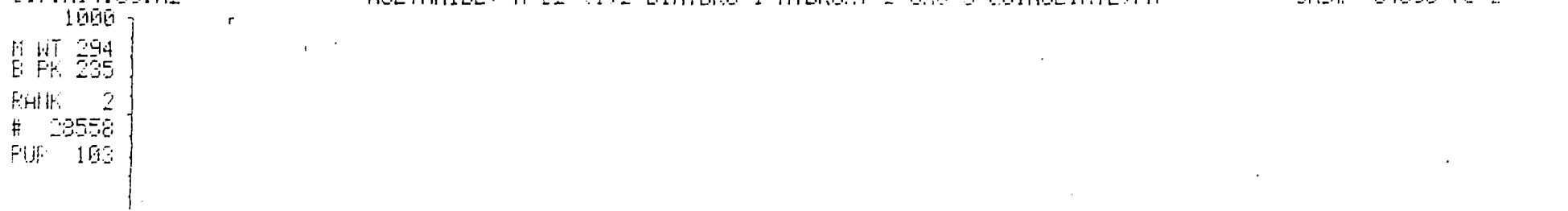
BASE M-2: 34  
 RIC: 7088.



02.H4.0.5 ETHANETHIOIC ACID CAS# 507-09-5



017.H14.03.H2 ACETAMIDE, N-(2-(1,2-DIHYDRO-1-HYDROXY-2-OXO-3-QUINOLINYL)PH CAS# 54833-78-2



011.H10.0.32 2-PROPANONE, 1-(5-PHENYL-3H-1,2-DITHIOL-3-YLIENE)- CAS# 27315-83-3



M Z 50 100 150 200 250

MID LIBRARY SEARCH (LIBRARY#)  
05/03/94 14:08:00 + 5:22  
SAMPLE: 2817-001-03 BLANK 1511.2  
CONDS.: EPA METHOD 8240  
ENHANCED (S 15S 2N 0T)

DATA: 07812 # 213  
CALI: 07812 # 3

BASE M/Z: 101  
RIC: 6880.

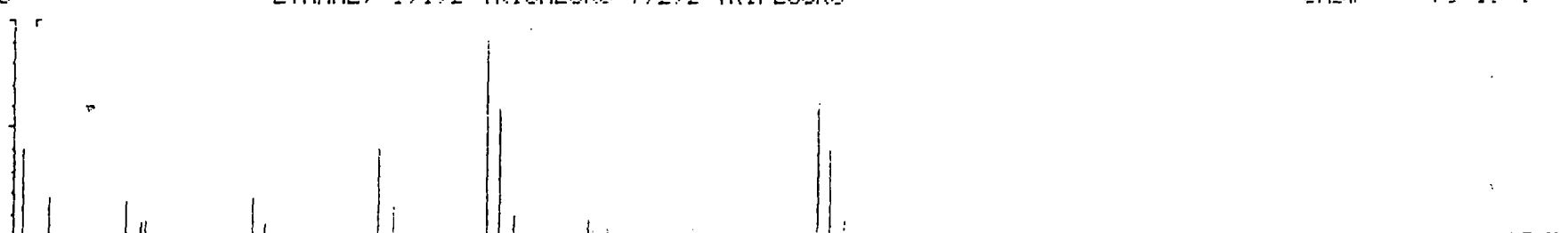


02.CL3.F3

ETHANE, 1,1,2-TRICHLORO-1,2,2-TRIFLUORO-

CAS# 75-13-1

1121  
M WT 186  
B PK 101  
RANK 1  
# 14273  
PUR 966

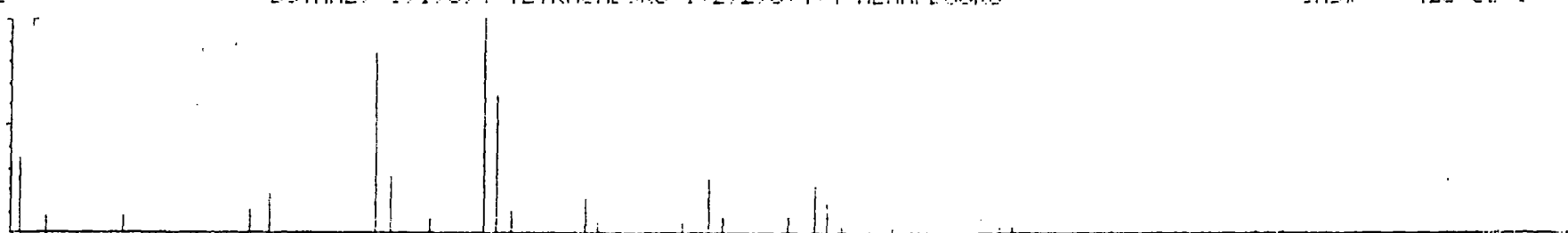


04.CL4.F6

BUTANE, 1,1,3,4-TETRACHLORO-1,2,2,3,4,4-HEXAFLUORO-

CAS# 423-36-1

1121  
M WT 382  
B PK 101  
RANK 2  
# 29505  
PUR 653

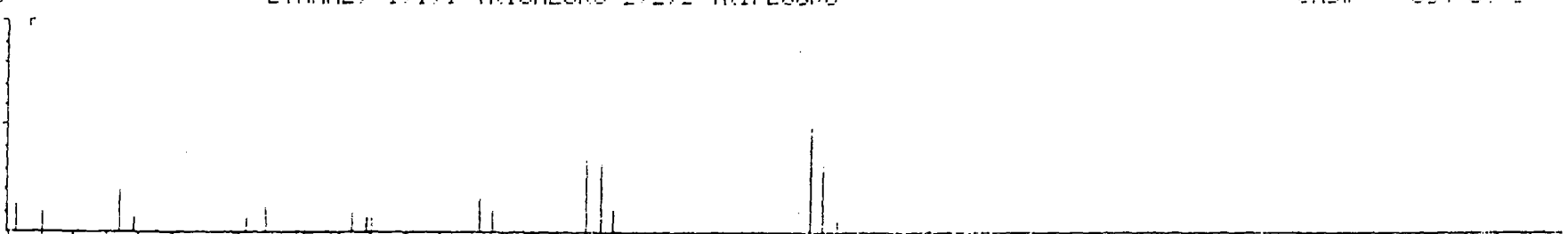


02.CL3.F3

ETHANE, 1,1,1-TRICHLORO-2,2,2-TRIFLUORO-

CAS# 354-50-5

1121  
M WT 186  
B PK 151  
RANK 3  
# 14280  
PUR 531



M 2

50

100

150

200

250



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STANDARDS DATA

## Initial Calibration Data

Instrument Identifier: FINN

Calibration Date: 04/24/94

5% RSD

IN RF FOR SPCC (\*\*) = 0.30

Compound

RF  
10RF  
20RF  
50RF  
100RF  
200Mean  
RF

%RSD

|     |                         |    |       |       |       |       |       |       |        |
|-----|-------------------------|----|-------|-------|-------|-------|-------|-------|--------|
| 010 | CHLOROMETHANE           | ** | 0.421 | 0.421 | 0.482 | 0.404 | 0.410 | 0.428 | 7.308  |
| 015 | BROMOMETHANE            |    | 0.500 | 0.501 | 0.577 | 0.493 | 0.455 | 0.505 | 8.769  |
| 020 | VINYL CHLORIDE          | *  | 0.416 | 0.439 | 0.393 | 0.291 | 0.278 | 0.364 | 20.294 |
| 025 | CHLOROETHANE            |    | 0.280 | 0.287 | 0.301 | 0.277 | 0.236 | 0.276 | 8.832  |
| 030 | METHYLENE CHLORIDE      |    | 1.025 | 1.061 | 0.969 | 0.866 | 0.831 | 0.950 | 10.447 |
| 035 | ACROLIN                 |    | 0.050 | 0.059 | 0.067 | 0.072 | 0.076 | 0.065 | 16.456 |
| 035 | ACETONE                 |    | 0.336 | 0.219 | 0.218 | 0.178 | 0.164 | 0.223 | 30.377 |
| 252 | ACRYLONITRILE           |    | 0.098 | 0.111 | 0.146 | 0.143 | 0.152 | 0.130 | 18.635 |
| 040 | CARBON DISULFIDE        |    | 0.941 | 0.873 | 1.210 | 1.137 | 1.195 | 1.071 | 14.408 |
| 045 | 1,1-DICHLOROETHENE      | *  | 0.316 | 0.299 | 0.351 | 0.323 | 0.279 | 0.314 | 8.581  |
| 050 | 1,1-DICHLOROETHANE      | ** | 0.755 | 0.732 | 0.762 | 0.739 | 0.673 | 0.732 | 4.805  |
| 055 | TRANS-1,2-DICHLOROETHEN |    | 0.953 | 0.875 | 1.001 | 0.938 | 0.881 | 0.930 | 5.668  |
| 000 | TRICHLOROFLUOROMETHA    |    | 0.434 | 0.274 | 0.323 | 0.294 | 0.251 | 0.315 | 22.758 |
| 060 | CHLOROFORM              | *  | 0.966 | 0.972 | 0.988 | 1.002 | 0.924 | 0.970 | 3.051  |
| 065 | 1,2-DICHLOROETHANE      |    | 0.974 | 0.933 | 0.949 | 0.926 | 0.895 | 0.935 | 3.105  |
| 110 | 2-BUTANONE              |    | 0.110 | 0.106 | 0.113 | 0.107 | 0.113 | 0.110 | 2.901  |
| 115 | 1,1,1-TRICHLOROETHANE   |    | 0.467 | 0.476 | 0.530 | 0.501 | 0.477 | 0.490 | 5.257  |
| 120 | CARBON TETRACHLORIDE    |    | 0.366 | 0.384 | 0.453 | 0.446 | 0.446 | 0.419 | 9.684  |
| 125 | VINYL ACETATE           |    | 0.573 | 0.606 | 0.711 | 0.710 | 0.766 | 0.673 | 11.984 |
| 130 | BROMO DICHLOROMETHANE   |    | 0.427 | 0.465 | 0.525 | 0.549 | 0.528 | 0.499 | 10.240 |
| 140 | 1,2-DICHLOROPROPANE     |    | 0.339 | 0.330 | 0.344 | 0.351 | 0.388 | 0.350 | 6.411  |
| 145 | TRANS-1,3 DICHLOROPROPE |    | 0.368 | 0.395 | 0.465 | 0.485 | 0.550 | 0.452 | 16.029 |
| 150 | TRICHLOROETHENE         |    | 0.358 | 0.353 | 0.379 | 0.378 | 0.393 | 0.372 | 4.422  |
| 155 | DIBROMOCHLOROMETHANE    |    | 0.312 | 0.363 | 0.464 | 0.478 | 0.555 | 0.434 | 22.286 |
| 160 | 1,1,2-TRICHLOROETHANE   |    | 0.297 | 0.305 | 0.326 | 0.318 | 0.338 | 0.317 | 5.131  |
| 165 | BENZENE                 |    | 0.867 | 0.842 | 0.859 | 0.848 | 0.879 | 0.859 | 1.708  |
| 143 | CIS-1,3-DICHLOROPROPENE |    | 0.275 | 0.312 | 0.384 | 0.411 | 0.476 | 0.372 | 21.538 |
| 175 | 2-CHLOROETHYL VINYL ETH |    | 0.079 | 0.083 | 0.091 | 0.092 | 0.098 | 0.089 | 8.624  |
| 180 | BROMOFORM               | ** | 0.194 | 0.228 | 0.286 | 0.357 | 0.425 | 0.298 | 31.611 |
| 220 | TETRACHLOROETHENE       |    | 0.531 | 0.522 | 0.575 | 0.529 | 0.517 | 0.535 | 4.359  |
| 210 | 2-HEXANONE              |    | 0.417 | 0.547 | 0.563 | 0.642 | 0.439 | 0.522 | 17.826 |
| 205 | 4-METHYL 2-PENTANONE    |    | 0.254 | 0.231 | 0.248 | 0.267 | 0.289 | 0.258 | 8.436  |
| 225 | 1,1,2,2-TETRACHLOROETHA |    | 0.598 | 0.585 | 0.580 | 0.657 | 0.698 | 0.624 | 8.297  |
| 230 | TOLUENE                 | *  | 1.267 | 1.207 | 1.264 | 1.250 | 1.257 | 1.249 | 1.951  |
| 235 | CHLOROBENZENE           | ** | 0.918 | 0.934 | 0.953 | 0.943 | 0.949 | 0.939 | 1.479  |
| 240 | ETHYL BENZENE           | *  | 0.402 | 0.402 | 0.433 | 0.430 | 0.433 | 0.420 | 3.902  |
| 245 | STYRENE                 |    | 0.872 | 0.878 | 0.930 | 0.979 | 1.002 | 0.932 | 6.266  |
| 250 | M+P-XYLENES             |    | 1.166 | 1.203 | 1.221 | 1.227 | 1.249 | 1.213 | 2.564  |
| 253 | 1,3-DICHLOROBENZENE     |    | 0.921 | 0.880 | 0.931 | 0.978 | 1.021 | 0.946 | 5.762  |
| 254 | 1,4-DICHLOROBENZENE     |    | 0.947 | 0.910 | 0.972 | 1.031 | 1.043 | 0.981 | 5.728  |
| 255 | 1,2-DICHLOROBENZENE     |    | 0.876 | 0.829 | 0.871 | 0.309 | 0.924 | 0.762 | 33.517 |
| 250 | O-XYLENE                |    | 0.590 | 0.579 | 0.571 | 0.597 | 0.619 | 0.591 | 3.129  |

DATAFILE: CVD603

## Calibration Check

Instrument Identifier: FINN

Calibration Date: 05/16/94

Standard File: CVD603

Date: 06/03/94 Time: 11:59:00

5% D

IN RF FOR SPCC (\*\*) = 0.300

| Compound                     | Mean<br>RF(I) | RF(O) | % D    |
|------------------------------|---------------|-------|--------|
| 313 1,2-DICHLOROETHANE-D4 *  | 0.878         | 0.758 | 0.000  |
| 305 TOLUENE-D8 **S. STD. **  | 1.217         | 1.108 | 0.000  |
| 310 4-BROMOFLUOROBENZENE **  | 1.013         | 0.935 | 0.000  |
| 310 CHLOROMETHANE **         | 0.428         | 0.424 | 0.859  |
| 315 BROMOMETHANE             | 0.505         | 0.455 | 9.933  |
| 320 VINYL CHLORIDE *         | 0.364         | 0.478 | 31.418 |
| 325 CHLOROETHANE             | 0.276         | 0.316 | 14.410 |
| 330 METHYLENE CHLORIDE       | 0.950         | 0.954 | 0.398  |
| 351 ACROLIN                  | 0.065         | 0.065 | 0.176  |
| 355 ACETONE                  | 0.223         | 0.231 | 3.664  |
| 352 ACRYLONITRILE            | 0.130         | 0.136 | 4.750  |
| 40 CARBON DISULFIDE          | 1.071         | 1.581 | 47.582 |
| 345 1,1-DICHLOROETHENE *     | 0.314         | 0.369 | 17.612 |
| 350 1,1-DICHLOROETHANE **    | 0.732         | 0.375 | 48.768 |
| 355 TRANS-1,2-DICHLOROETHENE | 0.930         | 0.861 | 7.376  |
| 300 TRICHLOROFLUOROMETHANE   | 0.315         | 0.284 | 9.775  |
| 350 CHLOROFORM *             | 0.970         | 0.702 | 27.700 |
| 365 1,2-DICHLOROETHANE       | 0.935         | 0.775 | 17.157 |
| 310 2-BUTANONE               | 0.110         | 0.097 | 11.242 |
| 315 1,1,1-TRICHLOROETHANE    | 0.490         | 0.570 | 16.355 |
| 320 CARBON TETRACHLORIDE     | 0.419         | 0.547 | 30.566 |
| 325 VINYL ACETATE            | 0.673         | 0.498 | 26.031 |
| 330 BROMO DICHLOROMETHANE    | 0.499         | 0.588 | 17.816 |
| 340 1,2-DICHLOROPROPANE      | 0.350         | 0.270 | 22.937 |
| 345 TRANS-1,3 DICHLOROPROPE  | 0.452         | 0.402 | 11.147 |
| 350 TRICHLOROETHENE          | 0.372         | 0.358 | 3.873  |
| 355 DIBROMOCHLOROMETHANE     | 0.434         | 0.594 | 36.907 |
| 360 1,1,2-TRICHLOROETHANE    | 0.317         | 0.290 | 8.549  |
| 365 BENZENE                  | 0.859         | 0.722 | 15.999 |
| 343 CIS-1,3-DICHLOROPROPENE  | 0.372         | 0.344 | 7.327  |
| 375 2-CHLOROETHYL VINYL ETH  | 0.089         | 0.098 | 10.483 |
| 380 BROMOFORM **             | 0.298         | 0.527 | 76.950 |
| 320 TETRACHLOROETHENE        | 0.535         | 0.607 | 13.427 |
| 310 2-HEXANONE               | 0.522         | 0.411 | 21.231 |
| 305 4-METHYL 2-PENTANONE     | 0.258         | 0.212 | 17.923 |
| 325 1,1,2,2-TETRACHLOROETHA  | 0.624         | 0.698 | 11.903 |
| 330 TOLUENE *                | 1.249         | 1.120 | 10.324 |
| 335 CHLOROBENZENE **         | 0.939         | 0.941 | 0.217  |
| 340 ETHYL BENZENE *          | 0.420         | 0.414 | 1.355  |
| 345 STYRENE                  | 0.932         | 0.990 | 6.240  |
| 350 M+P-XYLENES              | 1.213         | 1.270 | 4.635  |
| 353 1,3-DICHLOROBENZENE      | 0.946         | 1.154 | 21.978 |
| 354 1,4-DICHLOROBENZENE      | 0.981         | 1.173 | 19.550 |
| 355 1,2-DICHLOROBENZENE      | 0.762         | 1.061 | 39.269 |
| 350 O-XYLENE                 | 0.591         | 0.649 | 9.732  |

RIC

04/21/94 12:00:00

SAMPLE: 50 PPB UOA STD

CONDS.: EPA METHOD 8240

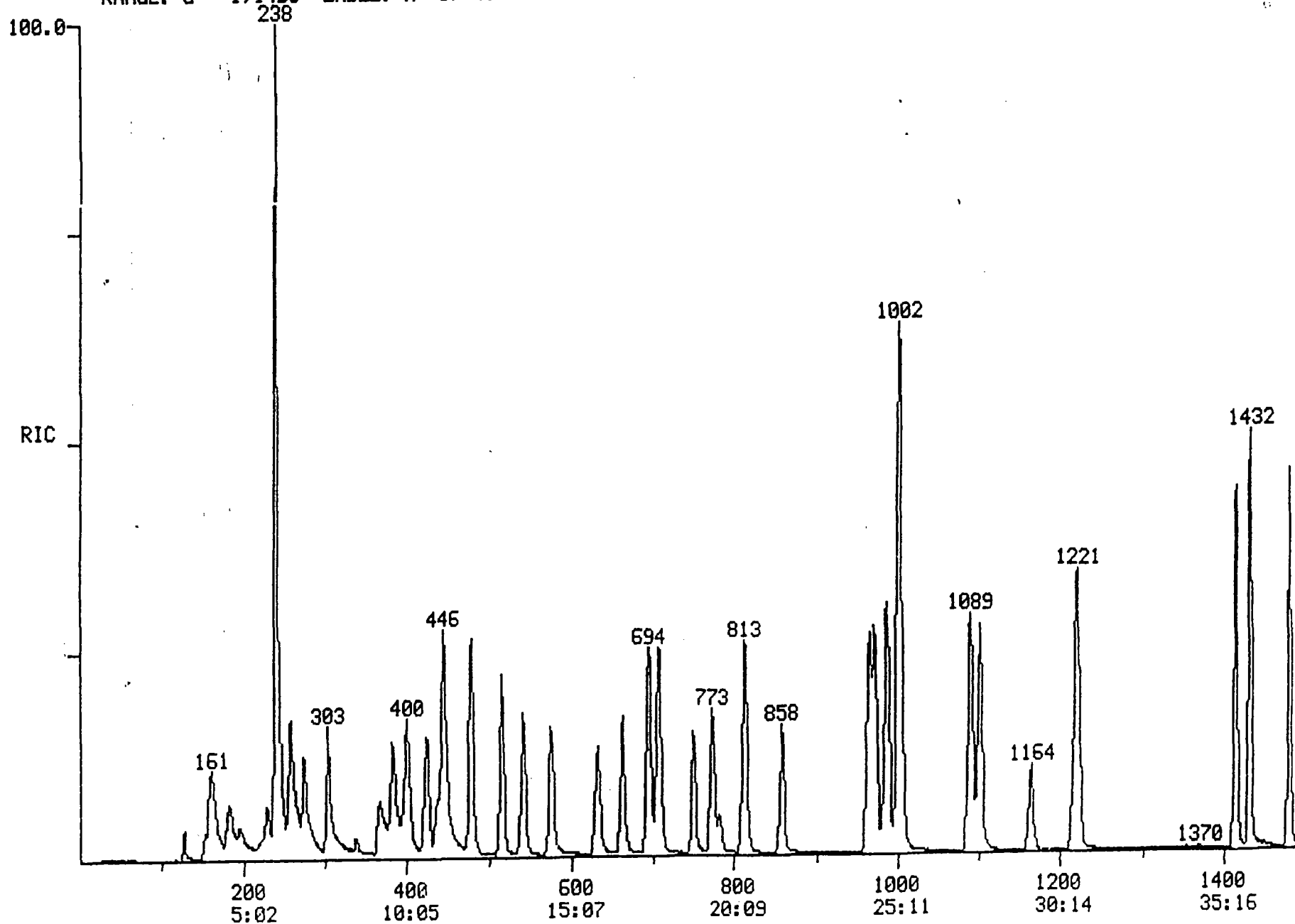
RANGE: G 1,1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C7444 #1

SCANS 1 TO 1493

CALI: C7444 #3

236



21Quantitation Report File: C7444

00:00

PB VOA STD

METHOD 8240

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

\* REF AMNT/(REF AREA \* RESP FACT)  
from Library Entry

OMOCHLOROMETHANE \*\*INT. STD. \*\*  
1,4-DIFLUOROBENZENE \*\*INT. STD. \*\*  
CHLOROBENZENE-D5 \*\*INT. STD. \*\*  
1,2-DICHLOROETHANE-D4 \*\*S. STD. \*\*  
TOLUENE-D8 \*\*S. STD. \*\*  
p-BROMOFLUOROBENZENE \*\*S. STD. \*\*  
CHLOROMETHANE \*\*  
BROMOMETHANE  
VINYL CHLORIDE \*  
CHLOROETHANE  
ETHYLENE CHLORIDE  
ACROLIN  
ACETONE  
ACRYLONITRILE  
CARBON DISULFIDE  
1,1-DICHLOROETHENE \*  
1,1-DICHLOROETHANE \*\*  
TRANS-1,2-DICHLOROETHENE  
TRICHLOROFLUOROMETHANE  
CHLOROFORM \*  
1,2-DICHLOROETHANE  
2-BUTANONE  
1,1,1-TRICHLOROETHANE  
CARBON TETRACHLORIDE  
VINYL ACETATE  
BROMO DICHLOROMETHANE  
1,2-DICHLOROPROPANE \*  
TRANS-1,3 DICHLOROPROPENE  
TRICHLOROETHENE  
DIBROMOCHLOROMETHANE  
1,1,2-TRICHLOROETHANE  
BENZENE  
CIS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
BROMOFORM \*\*  
TETRACHLOROETHENE  
2-HEXANONE  
4-METHYL 2-PENTANONE  
1,1,2,2-TETRACHLOROETHANE \*\*  
TOLUENE \*  
CHLOROBENZENE \*\*  
ETHYL BENZENE \*  
STYRENE  
M+P-XYLENES  
1,3-DICHLOROBENZENE  
1,4-DICHLOROBENZENE



C7444

## XYLENE

| Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot |
|------|-------|-----|-------|------|------------|-----------|------|
| 382  | 9:37  | 1   | 1.000 | A BB | 54684.     | 50.000 NG | 2.08 |
| 480  | 12:05 | 2   | 1.000 | A BB | 147027.    | 50.000 NG | 2.08 |
| 965  | 24:18 | 3   | 1.000 | A BB | 124912.    | 50.000 NG | 2.08 |
| 438  | 11:02 | 1   | 1.147 | A BB | 45744.     | 50.000 NG | 2.08 |
| 694  | 17:29 | 3   | 0.719 | A BB | 149892.    | 50.000 NG | 2.08 |
| 1221 | 30:45 | 3   | 1.265 | A BB | 112737.    | 50.000 NG | 2.08 |
| 154  | 3:53  | 1   | 0.403 | A BB | 26332.     | 50.000 NG | 2.08 |
| 181  | 4:34  | 1   | 0.474 | M YX | 31524.     | 50.000 NG | 2.08 |
| 158  | 3:59  | 1   | 0.414 | M XX | 21458.     | 50.000 NG | 2.08 |
| 184  | 4:38  | 1   | 0.482 | A BB | 16419.     | 50.000 NG | 2.08 |
| 256  | 6:27  | 1   | 0.670 | A BB | 52979.     | 50.000 NG | 2.08 |
| 219  | 5:31  | 1   | 0.573 | A BB | 3632.      | 50.000 NG | 2.08 |
| 222  | 5:36  | 1   | 0.581 | A BB | 11896.     | 50.000 NG | 2.08 |
| 266  | 6:42  | 1   | 0.696 | A BB | 7979.      | 50.000 NG | 2.08 |
| 257  | 6:28  | 1   | 0.673 | A BB | 66167.     | 50.000 NG | 2.08 |
| 228  | 5:45  | 1   | 0.597 | A BB | 19163.     | 50.000 NG | 2.08 |
| 305  | 7:41  | 1   | 0.798 | A BB | 41643.     | 50.000 NG | 2.08 |
| 274  | 6:54  | 1   | 0.717 | A BB | 54689.     | 50.000 NG | 2.08 |
| 196  | 4:56  | 1   | 0.513 | A BB | 17653.     | 50.000 NG | 2.08 |
| 367  | 9:15  | 1   | 0.961 | A BB | 54013.     | 50.000 NG | 2.08 |
| 448  | 11:17 | 1   | 1.173 | A BB | 51891.     | 50.000 NG | 2.08 |
| 338  | 8:31  | 2   | 0.704 | A BB | 16500.     | 50.000 NG | 2.08 |
| 400  | 10:05 | 2   | 0.833 | A BB | 77874.     | 50.000 NG | 2.08 |
| 424  | 10:41 | 2   | 0.883 | A BB | 66525.     | 50.000 NG | 2.08 |
| 303  | 7:38  | 2   | 0.631 | A BB | 104500.    | 50.000 NG | 2.08 |
| 576  | 14:31 | 2   | 1.200 | A BB | 77144.     | 50.000 NG | 2.08 |
| 543  | 13:41 | 2   | 1.131 | A BB | 50518.     | 50.000 NG | 2.08 |
| 662  | 16:41 | 2   | 1.379 | A BB | 68259.     | 50.000 NG | 2.08 |
| 516  | 13:00 | 2   | 1.075 | A BB | 55720.     | 50.000 NG | 2.08 |
| 858  | 21:37 | 2   | 1.787 | A BB | 68148.     | 50.000 NG | 2.08 |
| 772  | 19:27 | 2   | 1.608 | A BB | 47830.     | 50.000 NG | 2.08 |
| 445  | 11:13 | 2   | 0.927 | A BB | 126270.    | 50.000 NG | 2.08 |
| 749  | 18:52 | 2   | 1.560 | A BB | 56353.     | 50.000 NG | 2.08 |
| 706  | 17:47 | 2   | 1.471 | A BB | 13312.     | 50.000 NG | 2.08 |
| 1164 | 29:19 | 2   | 2.425 | M XX | 42032.     | 50.000 NG | 2.08 |
| 813  | 20:29 | 3   | 0.842 | A BB | 71819.     | 50.000 NG | 2.08 |
| 632  | 15:55 | 3   | 0.655 | A BB | 70299.     | 50.000 NG | 2.08 |
| 782  | 19:42 | 3   | 0.810 | A BB | 30886.     | 50.000 NG | 2.08 |
| 1217 | 30:39 | 3   | 1.261 | M XX | 72389.     | 50.000 NG | 2.08 |
| 706  | 17:47 | 3   | 0.732 | A BB | 157886.    | 50.000 NG | 2.08 |
| 972  | 24:29 | 3   | 1.007 | A BB | 118932.    | 50.000 NG | 2.08 |
| 987  | 24:52 | 3   | 1.023 | A BB | 53997.     | 50.000 NG | 2.08 |
| 1101 | 27:44 | 3   | 1.141 | A VB | 116066.    | 50.000 NG | 2.08 |
| 1002 | 25:14 | 3   | 1.038 | A BB | 152435.    | 50.000 NG | 2.08 |
| 1414 | 35:37 | 3   | 1.465 | A BB | 116239.    | 50.000 NG | 2.08 |
| 1432 | 36:04 | 3   | 1.484 | A BB | 121338.    | 50.000 NG | 2.08 |
| 1480 | 37:17 | 3   | 1.534 | A BB | 108691.    | 50.000 NG | 2.08 |
| 1089 | 27:26 | 3   | 1.128 | A BB | 71208.     | 50.000 NG | 2.08 |

RIC

04/21/94 12:46:00

SAMPLE: 10 PPB UOA STD

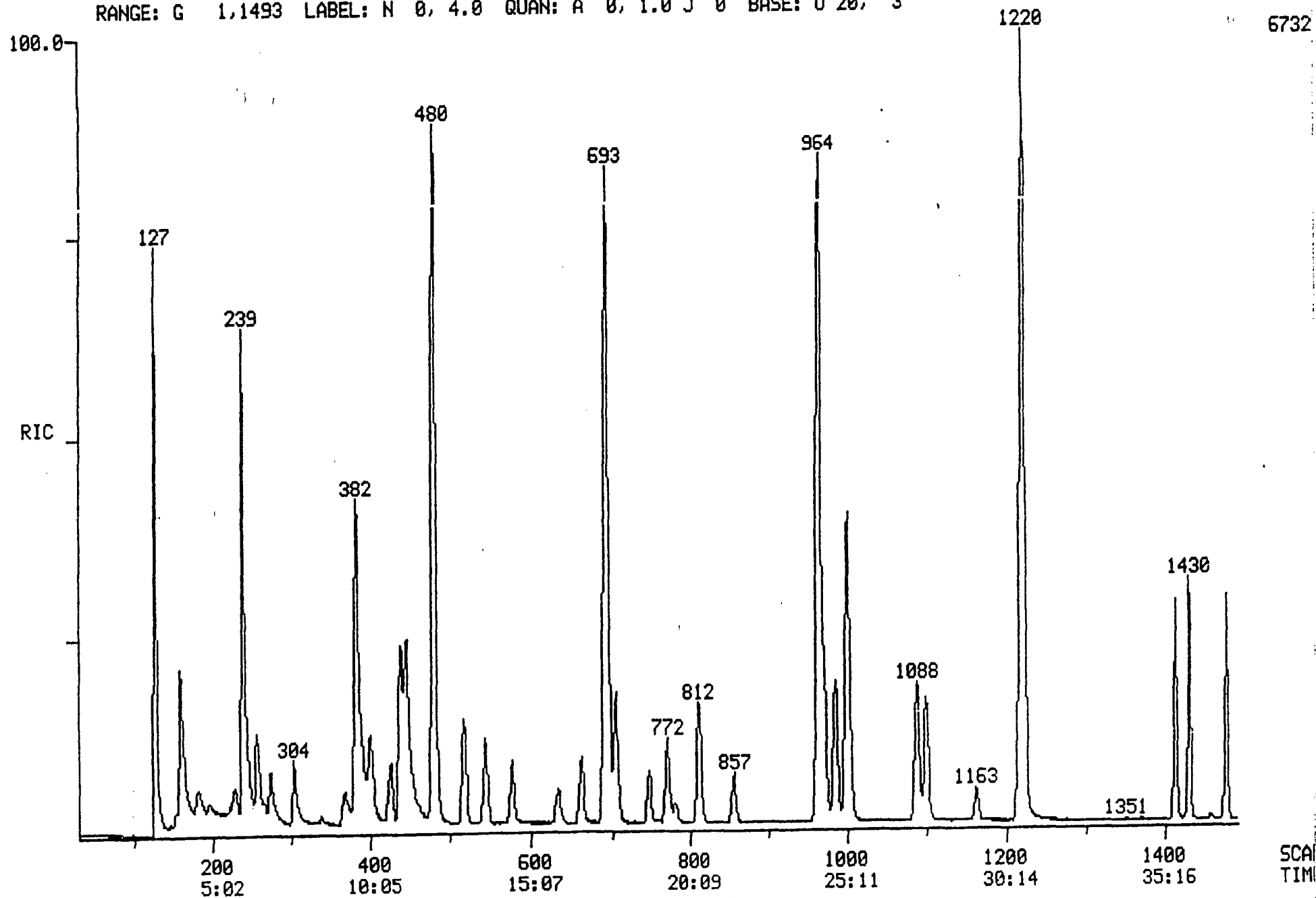
CONDS.: EPA METHOD 8240

RANGE: G 1.1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C744 48

CALI: C7445 #3

SCANS 30 TO 1493



on Report File: C7445

TI  
2:46:00  
PPB VOA STD  
EPA METHOD 8240

ML Instrument: FINN  
by: PTL Analyst: UC

Weight: 0.000  
Acct. No.: 5-PT

EA \* REF AMNT/(REF AREA \* RESP FACT)  
from Library Entry

BROMOCHLOROMETHANE \*\*INT. STD. \*\*  
1,4-DIFLUOROBENZENE \*\*INT. STD. \*\*  
CHLOROBENZENE-D5 \*\*INT. STD. \*\*  
1,2-DICHLOROETHANE-D4 \*\*S. STD. \*\*  
TOLUENE-D8 \*\*S. STD. \*\*  
4-BROMOFLUOROBENZENE \*\*S. STD. \*\*  
CHLOROMETHANE \*\*  
BROMOMETHANE  
VINYL CHLORIDE \*  
CHLOROETHANE  
METHYLENE CHLORIDE  
ACROLIN  
ACETONE  
ACRYLONITRILE  
CARBON DISULFIDE  
45 1,1-DICHLOROETHENE \*  
50 1,1-DICHLOROETHANE \*\*  
55 TRANS-1,2-DICHLOROETHENE  
100 TRICHLOROFLUOROMETHANE  
60 CHLOROFORM \*  
65 1,2-DICHLOROETHANE  
110 2-BUTANONE  
115 1,1,1-TRICHLOROETHANE  
120 CARBON TETRACHLORIDE  
125 VINYL ACETATE  
130 BROMO DICHLOROMETHANE  
140 1,2-DICHLOROPROPANE \*  
145 TRANS-1,3 DICHLOROPROPENE  
150 TRICHLOROETHENE  
155 DIBROMOCHLOROMETHANE  
160 1,1,2-TRICHLOROETHANE  
165 BENZENE  
143 CIS-1,3-DICHLOROPROPENE  
175 2-CHLOROETHYL VINYL ETHER  
180 BROMOFORM \*\*  
220 TETRACHLOROETHENE  
210 2-HEXANONE  
205 4-METHYL 2-PENTANONE  
25 1,1,2,2-TETRACHLOROETHANE \*\*  
230 TOLUENE \*  
235 CHLOROBENZENE \*\*  
240 ETHYL BENZENE \*  
245 STYRENE  
250 M+P-XYLENES  
253 1,3-DICHLOROBENZENE  
254 1,4-DICHLOROBENZENE

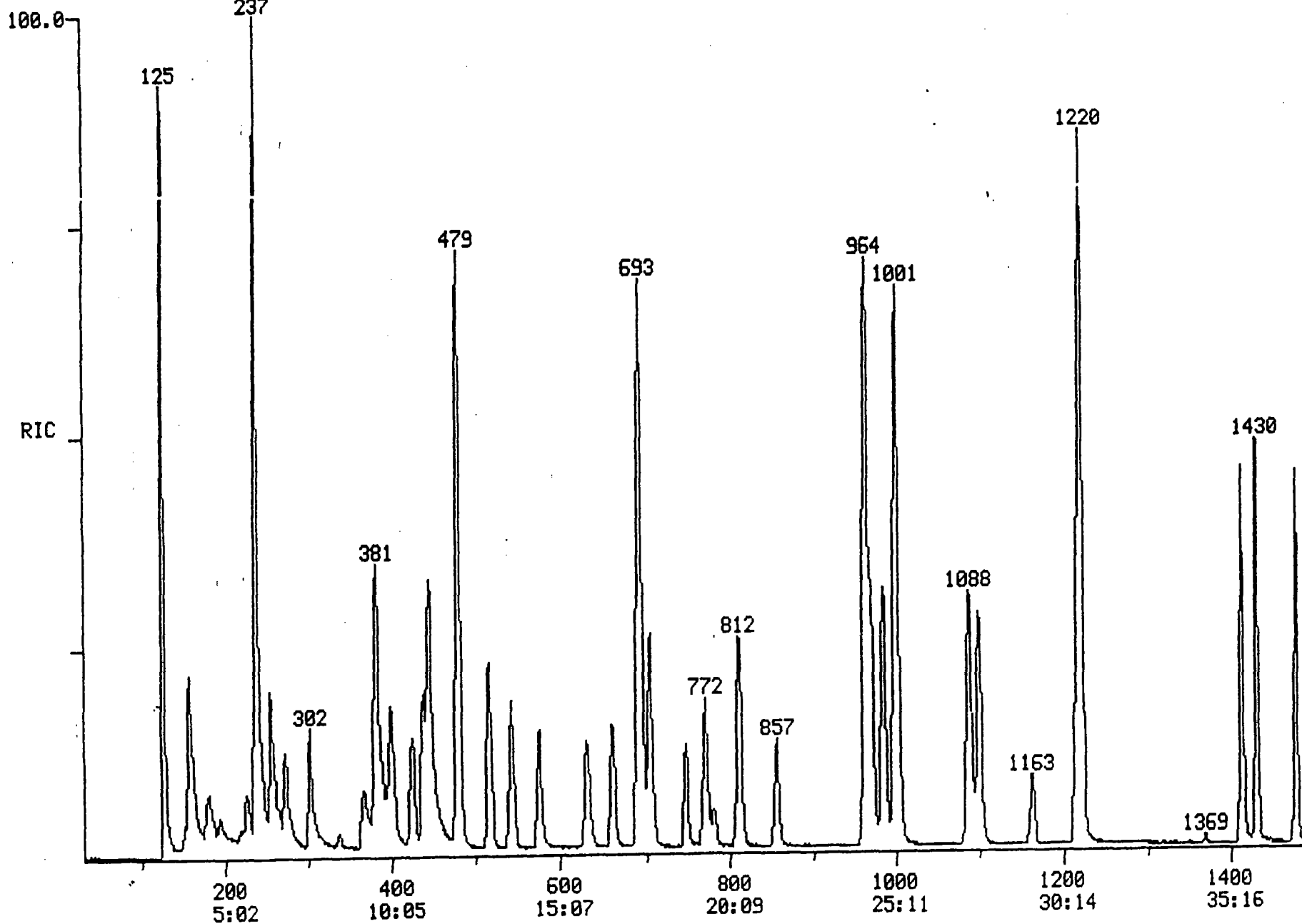
C7445

Name  
C250 G-XYLENE

|    | m/z | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | XTot |
|----|-----|------|-------|-----|-------|------|------------|-----------|------|
| 1  | 49  | 382  | 9:37  | 1   | 1.000 | A BB | 51359.     | 50.000 NG | 7.20 |
| 2  | 114 | 480  | 12:05 | 2   | 1.000 | A BB | 142133.    | 50.000 NG | 7.20 |
| 3  | 117 | 964  | 24:17 | 3   | 1.000 | A BB | 115161.    | 50.000 NG | 7.20 |
| 4  | 65  | 438  | 11:02 | 1   | 1.147 | A BB | 45265.     | 52.680 NG | 7.59 |
| 5  | 98  | 693  | 17:27 | 3   | 0.719 | A BB | 142660.    | 51.617 NG | 7.44 |
| 6  | 95  | 1220 | 30:44 | 3   | 1.266 | A BB | 102179.    | 49.154 NG | 7.08 |
| 7  | 50  | 154  | 3:53  | 1   | 0.403 | A BB | 4320.      | 8.734 NG  | 1.26 |
| 8  | 94  | 181  | 4:34  | 1   | 0.474 | M XX | 5135.      | 8.672 NG  | 1.25 |
| 9  | 62  | 158  | 3:59  | 1   | 0.414 | A BB | 4266.      | 10.584 NG | 1.52 |
| 10 | 64  | 184  | 4:38  | 1   | 0.482 | A BB | 2873.      | 9.315 NG  | 1.34 |
| 11 | 49  | 256  | 6:27  | 1   | 0.670 | A BB | 10516.     | 10.570 NG | 1.52 |
| 12 | 56  | 219  | 5:31  | 1   | 0.573 | A BB | 506.       | 7.417 NG  | 1.07 |
| 13 | 43  | 223  | 5:37  | 1   | 0.584 | A BB | 3448.      | 15.432 NG | 2.22 |
| 14 | 53  | 266  | 6:42  | 1   | 0.696 | A BB | 997.       | 6.652 NG  | 0.96 |
| 15 | 76  | 257  | 6:28  | 1   | 0.673 | A BB | 9660.      | 7.772 NG  | 1.12 |
| 16 | 96  | 228  | 5:45  | 1   | 0.597 | A BB | 3237.      | 8.994 NG  | 1.30 |
| 17 | 63  | 305  | 7:41  | 1   | 0.798 | A BB | 7746.      | 9.903 NG  | 1.43 |
| 18 | 61  | 274  | 6:54  | 1   | 0.717 | A BB | 9787.      | 9.528 NG  | 1.37 |
| 19 | 101 | 196  | 4:56  | 1   | 0.513 | M XX | 4455.      | 13.435 NG | 1.94 |
| 20 | 83  | 367  | 9:15  | 1   | 0.961 | A BB | 9917.      | 9.774 NG  | 1.41 |
| 21 | 62  | 448  | 11:17 | 1   | 1.173 | A BB | 9997.      | 10.256 NG | 1.48 |
| 22 | 43  | 338  | 8:31  | 2   | 0.704 | A BB | 3099.      | 9.714 NG  | 1.40 |
| 23 | 97  | 400  | 10:05 | 2   | 0.833 | A BB | 13253.     | 8.802 NG  | 1.27 |
| 24 | 117 | 425  | 10:42 | 2   | 0.885 | A BB | 10401.     | 8.087 NG  | 1.17 |
| 25 | 43  | 303  | 7:38  | 2   | 0.631 | A BB | 16264.     | 8.050 NG  | 1.16 |
| 26 | 83  | 576  | 14:31 | 2   | 1.200 | A BB | 12111.     | 8.120 NG  | 1.17 |
| 27 | 63  | 543  | 13:41 | 2   | 1.131 | A BB | 9625.      | 9.854 NG  | 1.42 |
| 28 | 75  | 662  | 16:41 | 2   | 1.379 | A BB | 10457.     | 7.923 NG  | 1.14 |
| 29 | 95  | 517  | 13:01 | 2   | 1.077 | A BB | 10173.     | 9.443 NG  | 1.36 |
| 30 | 129 | 857  | 21:35 | 2   | 1.785 | A BB | 8843.      | 6.712 NG  | 0.97 |
| 31 | 97  | 772  | 19:27 | 2   | 1.608 | A BB | 8423.      | 9.108 NG  | 1.31 |
| 32 | 78  | 446  | 11:14 | 2   | 0.929 | A BB | 24620.     | 10.085 NG | 1.45 |
| 33 | 75  | 749  | 18:52 | 2   | 1.560 | A BB | 7794.      | 7.154 NG  | 1.03 |
| 34 | 63  | 706  | 17:47 | 2   | 1.471 | A BB | 2233.      | 8.676 NG  | 1.25 |
| 35 | 173 | 1163 | 29:18 | 2   | 2.423 | A BB | 5496.      | 6.763 NG  | 0.97 |
| 36 | 166 | 812  | 20:27 | 3   | 0.842 | A BB | 12230.     | 9.235 NG  | 1.33 |
| 37 | 43  | 633  | 15:57 | 3   | 0.657 | A BB | 9603.      | 7.408 NG  | 1.07 |
| 38 | 43  | 782  | 19:42 | 3   | 0.811 | A BB | 5831.      | 10.239 NG | 1.48 |
| 39 | 83  | 1216 | 30:38 | 3   | 1.261 | A BB | 13754.     | 10.304 NG | 1.48 |
| 40 | 91  | 706  | 17:47 | 3   | 0.732 | A BB | 29168.     | 10.019 NG | 1.44 |
| 41 | 112 | 971  | 24:28 | 3   | 1.007 | A BB | 21132.     | 9.636 NG  | 1.39 |
| 42 | 106 | 985  | 24:49 | 3   | 1.022 | A BB | 9241.      | 9.281 NG  | 1.34 |
| 43 | 104 | 1100 | 27:43 | 3   | 1.141 | A BB | 20077.     | 9.381 NG  | 1.35 |
| 44 | 106 | 1001 | 25:13 | 3   | 1.038 | A BB | 26845.     | 9.551 NG  | 1.38 |
| 45 | 146 | 1413 | 35:36 | 3   | 1.466 | A BB | 21196.     | 9.889 NG  | 1.42 |
| 46 | 146 | 1430 | 36:01 | 3   | 1.483 | A BB | 21807.     | 9.747 NG  | 1.40 |
| 47 | 146 | 1478 | 37:14 | 3   | 1.533 | A BB | 20172.     | 10.065 NG | 1.45 |
| 48 | 106 | 1088 | 27:24 | 3   | 1.129 | A BB | 13589.     | 10.350 NG | 1.49 |

SAMPLE: 20 PPD-VOL STD  
CONDS.: EPA METHOD 8240  
RANGE: G 1.1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

8460



File: C7446

40

Instrument: FINN  
Analyst: UC

Weight: 0.000  
Acct. No.: 5-PT

IT/(REF AREA \* RESP FACT)  
ary Entry

METHANE \*\*INT. STD. \*\*  
ROBENZENE \*\*INT. STD. \*\*  
ENE-D5 \*\*INT. STD. \*\*  
ROETHANE-D4 \*\*S. STD. \*\*  
\*\*S. STD. \*\*  
ROBENZENE \*\*S. STD. \*\*  
ANE \*\*  
NE  
RIDE \*  
NE  
CHLORIDE

RILE  
ULFIDE  
ROETHENE \*  
ROETHANE \*\*  
-DICHLOROETHENE  
ROFLUOROMETHANE  
M \*  
LOROETHANE  
ONE  
CHLOROETHANE  
TRACHLORIDE  
TATE  
HLOROMETHANE  
LOROPROPANE \*  
3 DICHLOROPROPENE  
JETHENE  
HLOROMETHANE  
ICHLOROETHANE

DICHLOROPROPENE  
DETHYL VINYL ETHER  
RM \*\*  
LOROETHENE  
ONE  
2-PENTANONE  
STRACHLOROETHANE \*\*

\*  
ENZENE \*\*  
ENZENE \*  
E  
ENES  
DICHLOROBENZENE  
YCHI ROBENZENE

c7446

## O-XYLENE

| Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot |
|------|-------|-----|-------|------|------------|-----------|------|
| 381  | 9:36  | 1   | 1.000 | A BB | 54552.     | 50.000 NG | 4.67 |
| 479  | 12:04 | 2   | 1.000 | A BB | 145073.    | 50.000 NG | 4.67 |
| 964  | 24:17 | 3   | 1.000 | A BB | 120486.    | 50.000 NG | 4.67 |
| 437  | 11:00 | 1   | 1.147 | A BB | 44731.     | 49.012 NG | 4.57 |
| 693  | 17:27 | 3   | 0.719 | A BB | 145760.    | 50.408 NG | 4.71 |
| 1220 | 30:44 | 3   | 1.266 | A BB | 108424.    | 49.853 NG | 4.65 |
| 153  | 3:51  | 1   | 0.402 | A BB | 9178.      | 17.470 NG | 1.63 |
| 179  | 4:31  | 1   | 0.470 | M XX | 10932.     | 17.381 NG | 1.62 |
| 156  | 3:56  | 1   | 0.409 | M XX | 9577.      | 22.370 NG | 2.09 |
| 183  | 4:37  | 1   | 0.480 | A BB | 6249.      | 19.075 NG | 1.78 |
| 255  | 6:25  | 1   | 0.669 | A BB | 23134.     | 21.886 NG | 2.04 |
| 217  | 5:28  | 1   | 0.570 | A BB | 1275.      | 17.595 NG | 1.64 |
| 221  | 5:34  | 1   | 0.580 | A BB | 4771.      | 20.101 NG | 1.88 |
| 265  | 6:41  | 1   | 0.696 | A BB | 2412.      | 15.151 NG | 1.41 |
| 256  | 6:27  | 1   | 0.672 | A BB | 19035.     | 14.419 NG | 1.35 |
| 226  | 5:42  | 1   | 0.593 | A BB | 6509.      | 17.024 NG | 1.59 |
| 304  | 7:39  | 1   | 0.798 | A BB | 15955.     | 19.204 NG | 1.79 |
| 272  | 6:51  | 1   | 0.714 | A BB | 19075.     | 17.482 NG | 1.63 |
| 194  | 4:53  | 1   | 0.509 | A BB | 5961.      | 16.925 NG | 1.58 |
| 366  | 9:13  | 1   | 0.961 | A BB | 21198.     | 19.670 NG | 1.84 |
| 447  | 11:16 | 1   | 1.173 | A BB | 20350.     | 19.656 NG | 1.83 |
| 337  | 8:29  | 2   | 0.704 | A BB | 6117.      | 18.786 NG | 1.75 |
| 399  | 10:03 | 2   | 0.833 | A BB | 27568.     | 17.939 NG | 1.67 |
| 423  | 10:39 | 2   | 0.883 | A BB | 22243.     | 16.943 NG | 1.58 |
| 302  | 7:36  | 2   | 0.630 | A BB | 35160.     | 17.049 NG | 1.59 |
| 576  | 14:31 | 2   | 1.203 | A BB | 26947.     | 17.701 NG | 1.65 |
| 542  | 13:39 | 2   | 1.132 | A BB | 19120.     | 19.179 NG | 1.79 |
| 661  | 16:39 | 2   | 1.380 | A BB | 22882.     | 16.987 NG | 1.59 |
| 516  | 13:00 | 2   | 1.077 | A BB | 20438.     | 18.587 NG | 1.73 |
| 857  | 21:35 | 2   | 1.789 | A BB | 21017.     | 15.628 NG | 1.46 |
| 772  | 19:27 | 2   | 1.612 | A BB | 17687.     | 18.738 NG | 1.75 |
| 444  | 11:11 | 2   | 0.927 | A BB | 48855.     | 19.606 NG | 1.83 |
| 748  | 18:51 | 2   | 1.562 | A BB | 18068.     | 16.247 NG | 1.52 |
| 706  | 17:47 | 2   | 1.474 | A BB | 4765.      | 18.138 NG | 1.69 |
| 1164 | 29:19 | 2   | 2.430 | A BB | 13180.     | 15.890 NG | 1.48 |
| 812  | 20:27 | 3   | 0.842 | A BB | 25119.     | 18.130 NG | 1.69 |
| 631  | 15:54 | 3   | 0.655 | A BB | 26332.     | 19.416 NG | 1.81 |
| 781  | 19:40 | 3   | 0.810 | A BB | 11113.     | 18.651 NG | 1.74 |
| 1217 | 30:39 | 3   | 1.262 | A BB | 28176.     | 20.176 NG | 1.88 |
| 706  | 17:47 | 3   | 0.732 | A BB | 58153.     | 19.092 NG | 1.78 |
| 971  | 24:28 | 3   | 1.007 | A BB | 44979.     | 19.604 NG | 1.83 |
| 986  | 24:50 | 3   | 1.023 | A BB | 19360.     | 18.585 NG | 1.73 |
| 1100 | 27:43 | 3   | 1.141 | A BB | 42274.     | 18.880 NG | 1.76 |
| 1001 | 25:13 | 3   | 1.038 | A BB | 57975.     | 19.715 NG | 1.84 |
| 1413 | 35:36 | 3   | 1.466 | A BB | 42369.     | 18.895 NG | 1.76 |
| 1430 | 36:01 | 3   | 1.483 | A BB | 43848.     | 18.732 NG | 1.75 |
| 1478 | 37:14 | 3   | 1.533 | A BB | 39924.     | 19.040 NG | 1.78 |
| 1088 | 27:24 | 3   | 1.129 | A BB | 27892.     | 20.304 NG | 1.90 |

RIC

04/21/94 14:28:00

SAMPLE: 100 PPB VOA STD

CONDS.: EPA METHOD 8240

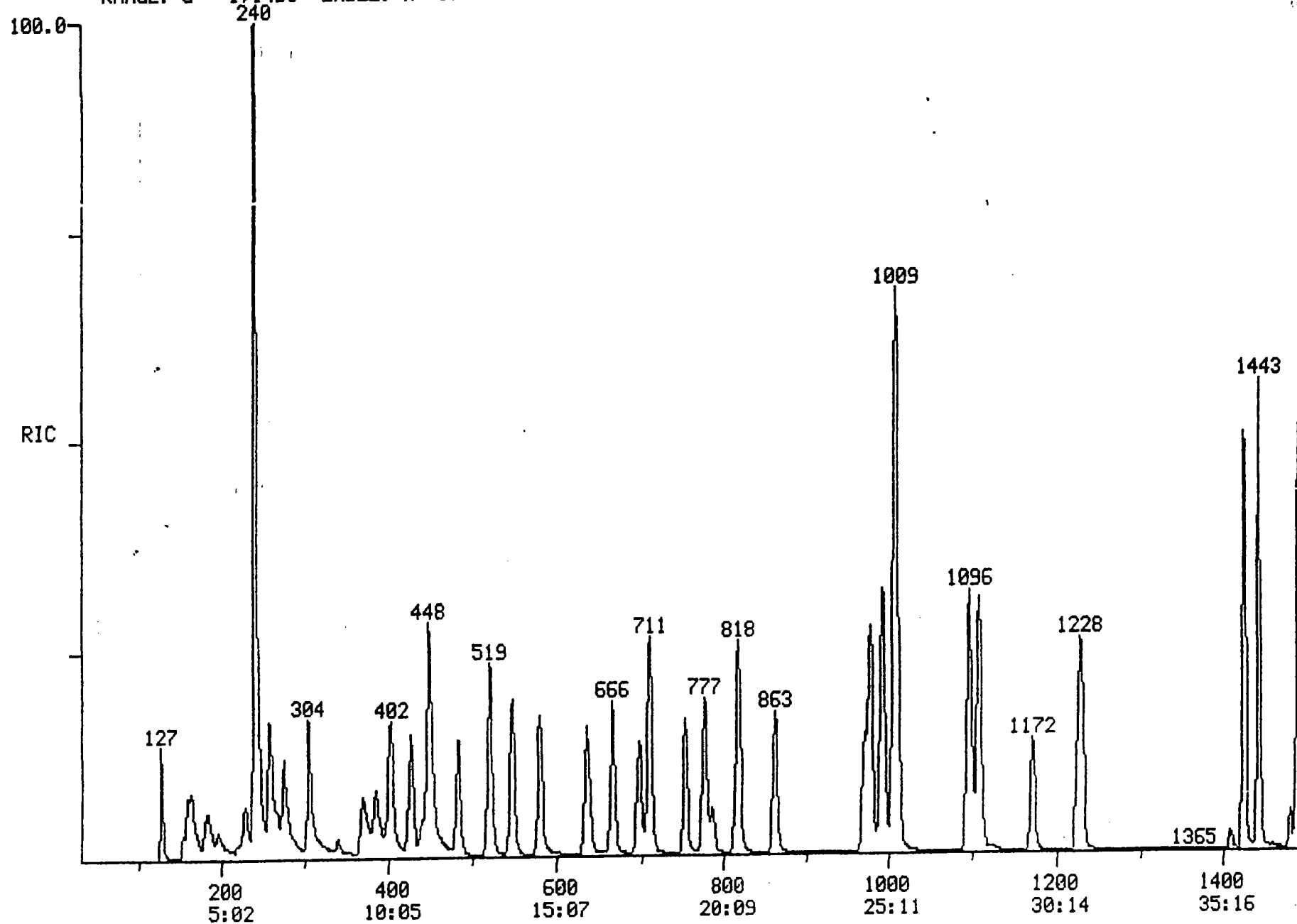
RANGE: G 1,1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C7447 #48

CALI: C7447 #3

SCANS 30 TO 1493

390650





Station Report File: C7447

7447.TI

94 14:28:00

100 PPB VOA STD

EPA METHOD 8240

1a: 5ML

otted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 5-PT

T=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
fac. from Library Entry

Name

CI01 BROMOCHLOROMETHANE \*\*INT. STD. \*\*  
CI10 1,4-DIFLUOROBENZENE \*\*INT. STD. \*\*  
CI20 CHLOROBENZENE-D5 \*\*INT. STD. \*\*  
CS15 1,2-DICHLOROETHANE-D4 \*\*S. STD. \*\*  
CS05 TOLUENE-D8 \*\*S. STD. \*\*  
CS10 4-BROMOFLUOROBENZENE \*\*S. STD. \*\*  
C010 CHLOROMETHANE \*\*  
C015 BROMOMETHANE  
C020 VINYL CHLORIDE \*  
C025 CHLOROETHANE  
C030 METHYLENE CHLORIDE  
C251 ACROLIN  
C035 ACETONE  
C252 ACRYLONITRILE  
C040 CARBON DISULFIDE  
C045 1,1-DICHLOROETHENE \*  
C050 1,1-DICHLOROETHANE \*\*  
C055 TRANS-1,2-DICHLOROETHENE  
C000 TRICHLOROFLUOROMETHANE  
C060 CHLOROFORM \*  
C065 1,2-DICHLOROETHANE  
C110 2-BUTANONE  
C115 1,1,1-TRICHLOROETHANE  
C120 CARBON TETRACHLORIDE  
C125 VINYL ACETATE  
C130 BROMO DICHLOROMETHANE  
C140 1,2-DICHLOROPROPANE \*  
C145 TRANS-1,3 DICHLOROPROPENE  
C150 TRICHLOROETHENE  
C155 DIBROMOCHLOROMETHANE  
C160 1,1,2-TRICHLOROETHANE  
C165 BENZENE  
C143 CIS-1,3-DICHLOROPROPENE  
C175 2-CHLOROETHYL VINYL ETHER  
C180 BROMOFORM \*\*  
C220 TETRACHLOROETHENE  
C210 2-HEXANONE  
C205 4-METHYL 2-PENTANONE  
C225 1,1,2,2-TETRACHLOROETHANE \*\*  
C230 TOLUENE \*  
C235 CHLOROBENZENE \*\*  
C240 ETHYL BENZENE \*  
C245 STYRENE  
C250 M+P-XYLENES  
C253 1,3-DICHLOROBENZENE  
1,3-DICHLOROBENZENE

c7447

Name  
C250 O-XYLENE

| No | m/z | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount     | %Tot |
|----|-----|------|-------|-----|-------|------|------------|------------|------|
| 1  | 49  | 384  | 9:40  | 1   | 1.000 | A BB | 47037.     | 50.000 NG  | 1.13 |
| 2  | 114 | 482  | 12:08 | 2   | 1.000 | A BB | 131679.    | 50.000 NG  | 1.13 |
| 3  | 117 | 971  | 24:28 | 3   | 1.000 | A BB | 111326.    | 50.000 NG  | 1.13 |
| 4  | 65  | 440  | 11:05 | 1   | 1.146 | A BB | 45199.     | 57.437 NG  | 1.30 |
| 5  | 98  | 698  | 17:35 | 3   | 0.719 | A BB | 135263.    | 50.626 NG  | 1.15 |
| 6  | 95  | 1230 | 30:59 | 3   | 1.267 | A BB | 120115.    | 59.773 NG  | 1.36 |
| 7  | 50  | 155  | 3:54  | 1   | 0.404 | A BB | 37949.     | 83.775 NG  | 1.90 |
| 8  | 94  | 181  | 4:34  | 1   | 0.471 | A BB | 46295.     | 85.366 NG  | 1.94 |
| 9  | 62  | 158  | 3:59  | 1   | 0.411 | M XX | 27370.     | 74.144 NG  | 1.68 |
| 10 | 64  | 184  | 4:38  | 1   | 0.479 | A BB | 25966.     | 91.926 NG  | 2.08 |
| 11 | 49  | 257  | 6:28  | 1   | 0.669 | A BB | 81466.     | 89.385 NG  | 2.03 |
| 12 | 56  | 220  | 5:33  | 1   | 0.573 | A BB | 6748.      | 107.995 NG | 2.45 |
| 13 | 43  | 223  | 5:37  | 1   | 0.581 | A BB | 16675.     | 81.481 NG  | 1.85 |
| 14 | 53  | 267  | 6:44  | 1   | 0.695 | A BB | 13448.     | 97.970 NG  | 2.22 |
| 15 | 76  | 258  | 6:30  | 1   | 0.672 | A BB | 106871.    | 93.888 NG  | 2.13 |
| 16 | 96  | 228  | 5:45  | 1   | 0.594 | A BB | 30368.     | 92.118 NG  | 2.09 |
| 17 | 63  | 306  | 7:42  | 1   | 0.797 | A BB | 69512.     | 97.031 NG  | 2.20 |
| 18 | 61  | 274  | 6:54  | 1   | 0.714 | A BB | 88227.     | 93.777 NG  | 2.13 |
| 19 | 101 | 196  | 4:56  | 1   | 0.510 | A BB | 27620.     | 90.948 NG  | 2.06 |
| 20 | 83  | 368  | 9:16  | 1   | 0.958 | A BB | 94192.     | 101.369 NG | 2.30 |
| 21 | 62  | 450  | 11:20 | 1   | 1.172 | A BB | 87023.     | 97.485 NG  | 2.21 |
| 22 | 43  | 339  | 8:32  | 2   | 0.703 | A BB | 28166.     | 95.299 NG  | 2.16 |
| 23 | 97  | 402  | 10:08 | 2   | 0.834 | A BB | 131893.    | 94.554 NG  | 2.14 |
| 24 | 117 | 426  | 10:44 | 2   | 0.884 | A BB | 117278.    | 98.421 NG  | 2.23 |
| 25 | 43  | 304  | 7:39  | 2   | 0.631 | A BB | 186846.    | 99.820 NG  | 2.26 |
| 26 | 83  | 579  | 14:35 | 2   | 1.201 | A BB | 144423.    | 104.517 NG | 2.37 |
| 27 | 63  | 546  | 13:45 | 2   | 1.133 | A BB | 92185.     | 101.873 NG | 2.31 |
| 28 | 75  | 666  | 16:47 | 2   | 1.382 | A BB | 127538.    | 104.312 NG | 2.37 |
| 29 | 95  | 519  | 13:04 | 2   | 1.077 | A BB | 99309.     | 99.501 NG  | 2.26 |
| 30 | 129 | 863  | 21:44 | 2   | 1.790 | A BB | 125702.    | 102.978 NG | 2.34 |
| 31 | 97  | 777  | 19:34 | 2   | 1.612 | A BB | 83689.     | 97.682 NG  | 2.22 |
| 32 | 78  | 447  | 11:16 | 2   | 0.927 | A BB | 223309.    | 98.732 NG  | 2.24 |
| 33 | 75  | 754  | 19:00 | 2   | 1.564 | A BB | 108120.    | 107.113 NG | 2.43 |
| 34 | 63  | 711  | 17:55 | 2   | 1.475 | M XX | 24201.     | 101.495 NG | 2.30 |
| 35 | 173 | 1172 | 29:31 | 2   | 2.432 | A BB | 94008.     | 124.864 NG | 2.83 |
| 36 | 166 | 818  | 20:36 | 3   | 0.842 | A BB | 117649.    | 91.902 NG  | 2.08 |
| 37 | 43  | 636  | 16:01 | 3   | 0.655 | A BB | 142927.    | 114.062 NG | 2.59 |
| 38 | 43  | 787  | 19:49 | 3   | 0.811 | A BB | 59370.     | 107.840 NG | 2.45 |
| 39 | 83  | 1226 | 30:53 | 3   | 1.263 | A BB | 146267.    | 113.357 NG | 2.57 |
| 40 | 91  | 711  | 17:55 | 3   | 0.732 | A BB | 278213.    | 98.858 NG  | 2.24 |
| 41 | 112 | 978  | 24:38 | 3   | 1.007 | A BB | 209920.    | 99.022 NG  | 2.25 |
| 42 | 106 | 993  | 25:01 | 3   | 1.023 | A BB | 95643.     | 99.370 NG  | 2.25 |
| 43 | 104 | 1108 | 27:55 | 3   | 1.141 | A VB | 217789.    | 105.271 NG | 2.39 |
| 44 | 106 | 1009 | 25:25 | 3   | 1.039 | A BB | 273004.    | 100.475 NG | 2.28 |
| 45 | 146 | 1425 | 35:54 | 3   | 1.468 | A BB | 217672.    | 105.057 NG | 2.38 |
| 46 | 146 | 1443 | 36:21 | 3   | 1.486 | M XX | 229537.    | 106.128 NG | 2.41 |
| 47 | 146 | 1491 | 37:33 | 3   | 1.536 | M XX | 68680.     | 35.449 NG  | 0.80 |
| 48 | 106 | 1096 | 27:36 | 3   | 1.129 | A BB | 132721.    | 104.564 NG | 2.37 |

RIC

04/21/94 15:16:00

SAMPLE: 200 PPB UOA STD

COND5.: EPA METHOD 8240

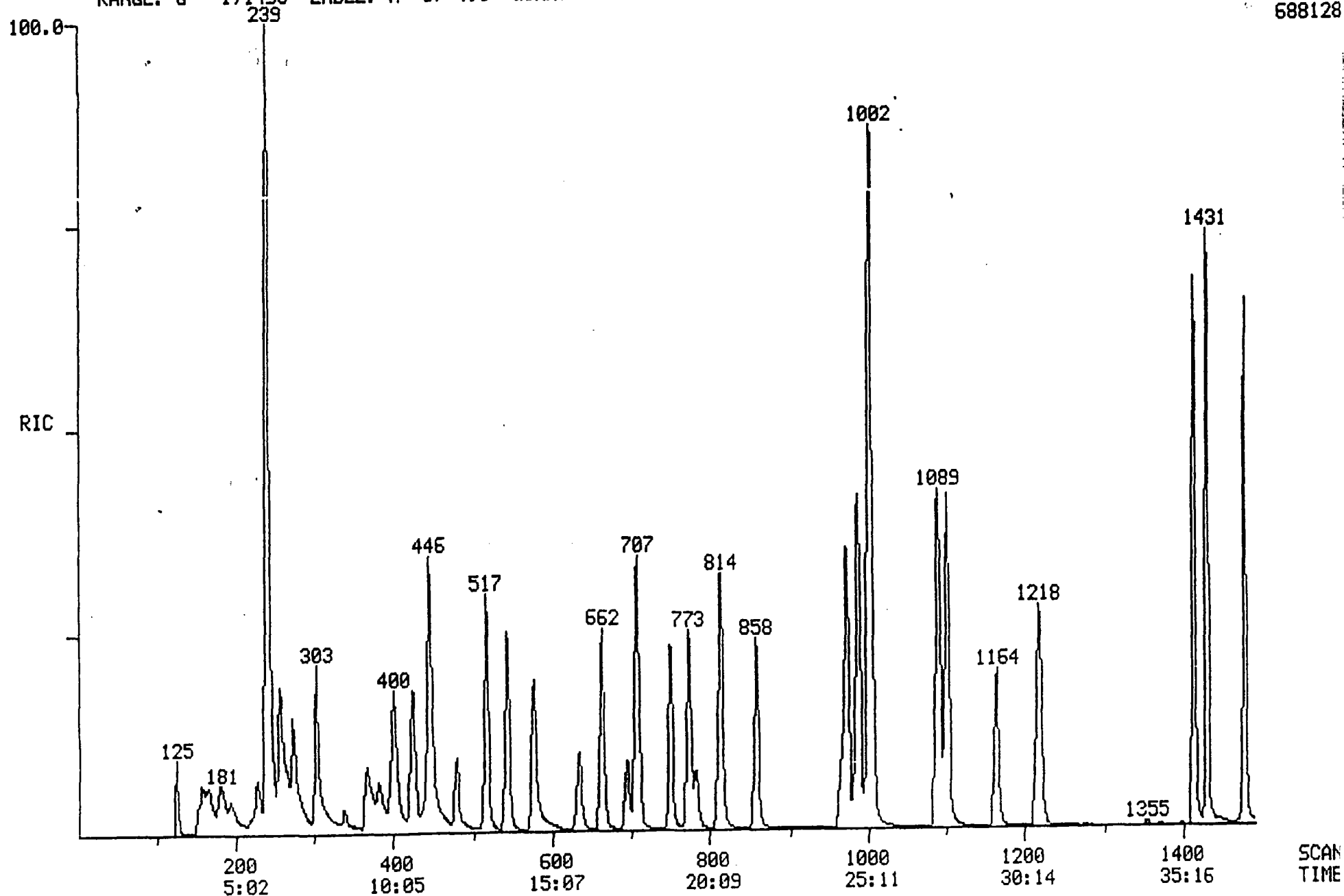
RANGE: G 1,1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C7448 #1

CALI: C7448 #3

SCANS 1 TO 1493

688128



tation Report File: C7448

a: C7448.TI

21/94 15:16:00

ple: 200 PPB VOA STD

ds.: EPA METHOD 8240

mula: 5ML

Instrument: FINN

Weight: 0.000

mitted by: PTL

Analyst: UC

Acct. No.: 5-PT

UNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

p. fac. from Library Entry

Name

C101 BROMOCHLOROMETHANE \*\*INT. STD. \*\*  
 C110 1,4-DIFLUOROBENZENE \*\*INT. STD. \*\*  
 C120 CHLOROBENZENE-D5 \*\*INT. STD. \*\*  
 C15 1,2-DICHLOROETHANE-D4 \*\*S. STD. \*\*  
 C505 TOLUENE-D8 \*\*S. STD. \*\*  
 C510 4-BROMOFLUOROBENZENE \*\*S. STD. \*\*  
 C010 CHLOROMETHANE \*\*  
 C015 BROMOMETHANE  
 C020 VINYL CHLORIDE \*  
 C025 CHLOROETHANE  
 C030 METHYLENE CHLORIDE  
 C251 ACROLIN  
 C035 ACETONE  
 C252 ACRYLONITRILE  
 C040 CARBON DISULFIDE  
 C045 1,1-DICHLOROETHENE \*  
 C050 1,1-DICHLOROETHANE \*\*  
 C055 TRANS-1,2-DICHLOROETHENE  
 C000 TRICHLOROFLUOROMETHANE  
 C060 CHLOROFORM \*  
 C065 1,2-DICHLOROETHANE  
 C110 2-BUTANONE  
 C115 1,1,1-TRICHLOROETHANE  
 C120 CARBON TETRACHLORIDE  
 C125 VINYL ACETATE  
 C130 BROMO DICHLOROMETHANE  
 C140 1,2-DICHLOROPROPANE \*  
 C145 TRANS-1,3 DICHLOROPROPENE  
 C150 TRICHLOROETHENE  
 C155 DIBROMOCHLOROMETHANE  
 C160 1,1,2-TRICHLOROETHANE  
 C165 BENZENE  
 C143 CIS-1,3-DICHLOROPROPENE  
 C175 2-CHLOROETHYL VINYL ETHER  
 C180 BROMOFORM \*\*  
 C220 TETRACHLOROETHENE  
 C210 2-HEXANONE  
 C205 4-METHYL 2-PENTANONE  
 C225 1,1,2,2-TETRACHLOROETHANE \*\*  
 C230 TOLUENE \*  
 C235 CHLOROBENZENE \*\*  
 C240 ETHYL BENZENE \*  
 C245 STYRENE  
 C250 M+P-XYLENES

C7448

No Name  
48 C250 O-XYLENE

| No | m/z | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount     | %Tot |
|----|-----|------|-------|-----|-------|------|------------|------------|------|
| 1  | 49  | 382  | 9:37  | 1   | 1.000 | A VB | 51054.     | 50.000 NG  | 0.57 |
| 2  | 114 | 480  | 12:05 | 2   | 1.000 | A BB | 139749.    | 50.000 NG  | 0.57 |
| 3  | 117 | 965  | 24:18 | 3   | 1.000 | A BB | 121964.    | 50.000 NG  | 0.57 |
| 4  | 65  | 438  | 11:02 | 1   | 1.147 | A BB | 45370.     | 53.118 NG  | 0.61 |
| 5  | 98  | 694  | 17:29 | 3   | 0.719 | A BB | 148393.    | 50.697 NG  | 0.58 |
| 6  | 95  | 1220 | 30:44 | 3   | 1.264 | A BB | 157704.    | 71.634 NG  | 0.82 |
| 7  | 50  | 153  | 3:51  | 1   | 0.401 | A BB | 83688.     | 170.210 NG | 1.95 |
| 8  | 94  | 180  | 4:32  | 1   | 0.471 | A BB | 92842.     | 157.727 NG | 1.81 |
| 9  | 62  | 156  | 3:56  | 1   | 0.408 | M XX | 56769.     | 141.685 NG | 1.63 |
| 10 | 64  | 183  | 4:37  | 1   | 0.479 | A BB | 48023.     | 156.636 NG | 1.80 |
| 11 | 49  | 256  | 6:27  | 1   | 0.670 | A BB | 169507.    | 171.351 NG | 1.97 |
| 12 | 56  | 218  | 5:29  | 1   | 0.571 | A BB | 15507.     | 228.657 NG | 2.62 |
| 13 | 43  | 222  | 5:36  | 1   | 0.581 | A BB | 33420.     | 150.458 NG | 1.73 |
| 14 | 53  | 266  | 6:42  | 1   | 0.696 | A BB | 30966.     | 207.844 NG | 2.38 |
| 15 | 76  | 256  | 6:27  | 1   | 0.670 | A BB | 243894.    | 197.407 NG | 2.27 |
| 16 | 96  | 226  | 5:42  | 1   | 0.592 | A BB | 56912.     | 159.049 NG | 1.82 |
| 17 | 63  | 304  | 7:39  | 1   | 0.796 | A BB | 137334.    | 176.619 NG | 2.03 |
| 18 | 61  | 273  | 6:53  | 1   | 0.715 | A BB | 179727.    | 176.001 NG | 2.02 |
| 19 | 101 | 194  | 4:53  | 1   | 0.508 | A BB | 51063.     | 154.915 NG | 1.78 |
| 20 | 83  | 366  | 9:13  | 1   | 0.958 | A BB | 188531.    | 186.932 NG | 2.14 |
| 21 | 62  | 448  | 11:17 | 1   | 1.173 | A BB | 182740.    | 188.601 NG | 2.16 |
| 22 | 43  | 338  | 8:31  | 2   | 0.704 | A BB | 62976.     | 200.773 NG | 2.30 |
| 23 | 97  | 400  | 10:05 | 2   | 0.833 | A BB | 266449.    | 179.986 NG | 2.07 |
| 24 | 117 | 424  | 10:41 | 2   | 0.883 | A BB | 248760.    | 196.705 NG | 2.26 |
| 25 | 43  | 302  | 7:36  | 2   | 0.629 | A BB | 428077.    | 215.488 NG | 2.47 |
| 26 | 83  | 577  | 14:32 | 2   | 1.202 | A BB | 294912.    | 201.099 NG | 2.31 |
| 27 | 63  | 543  | 13:41 | 2   | 1.131 | A BB | 216763.    | 225.711 NG | 2.59 |
| 28 | 75  | 662  | 16:41 | 2   | 1.379 | A BB | 306981.    | 236.576 NG | 2.71 |
| 29 | 95  | 517  | 13:01 | 2   | 1.077 | A BB | 219373.    | 207.104 NG | 2.38 |
| 30 | 129 | 858  | 21:37 | 2   | 1.787 | A BB | 309764.    | 239.110 NG | 2.74 |
| 31 | 97  | 773  | 19:28 | 2   | 1.610 | A BB | 188552.    | 207.369 NG | 2.38 |
| 32 | 78  | 445  | 11:13 | 2   | 0.927 | A BB | 491306.    | 204.678 NG | 2.35 |
| 33 | 75  | 749  | 18:52 | 2   | 1.560 | A BB | 265936.    | 248.244 NG | 2.85 |
| 34 | 63  | 707  | 17:49 | 2   | 1.473 | M XX | 54438.     | 215.118 NG | 2.47 |
| 35 | 173 | 1164 | 29:19 | 2   | 2.425 | A BB | 237048.    | 296.670 NG | 3.40 |
| 36 | 166 | 813  | 20:29 | 3   | 0.842 | A BB | 252130.    | 179.775 NG | 2.06 |
| 37 | 43  | 634  | 15:58 | 3   | 0.657 | A BB | 214028.    | 155.907 NG | 1.79 |
| 38 | 43  | 783  | 19:43 | 3   | 0.811 | A BB | 140736.    | 233.338 NG | 2.68 |
| 39 | 83  | 1217 | 30:39 | 3   | 1.261 | A BB | 340205.    | 240.664 NG | 2.76 |
| 40 | 91  | 707  | 17:49 | 3   | 0.733 | A BB | 612876.    | 198.780 NG | 2.28 |
| 41 | 112 | 973  | 24:31 | 3   | 1.008 | A BB | 462731.    | 199.238 NG | 2.29 |
| 42 | 106 | 987  | 24:52 | 3   | 1.023 | A BB | 210790.    | 199.903 NG | 2.29 |
| 43 | 104 | 1101 | 27:44 | 3   | 1.141 | A VB | 488697.    | 215.614 NG | 2.47 |
| 44 | 106 | 1002 | 25:14 | 3   | 1.038 | A BB | 609289.    | 204.682 NG | 2.35 |
| 45 | 146 | 1414 | 35:37 | 3   | 1.465 | A BB | 497746.    | 219.280 NG | 2.52 |
| 46 | 146 | 1431 | 36:03 | 3   | 1.483 | A BB | 508681.    | 214.679 NG | 2.46 |
| 47 | 146 | 1479 | 37:15 | 3   | 1.533 | A BB | 450324.    | 212.164 NG | 2.43 |
| 48 | 106 | 1089 | 27:26 | 3   | 1.128 | A BB | 301717.    | 216.976 NG | 2.49 |

RIC

06/03/94 11:59:00

SAMPLE: 50 PPB UOA STD

CONDS.: EPA METHOD 8240

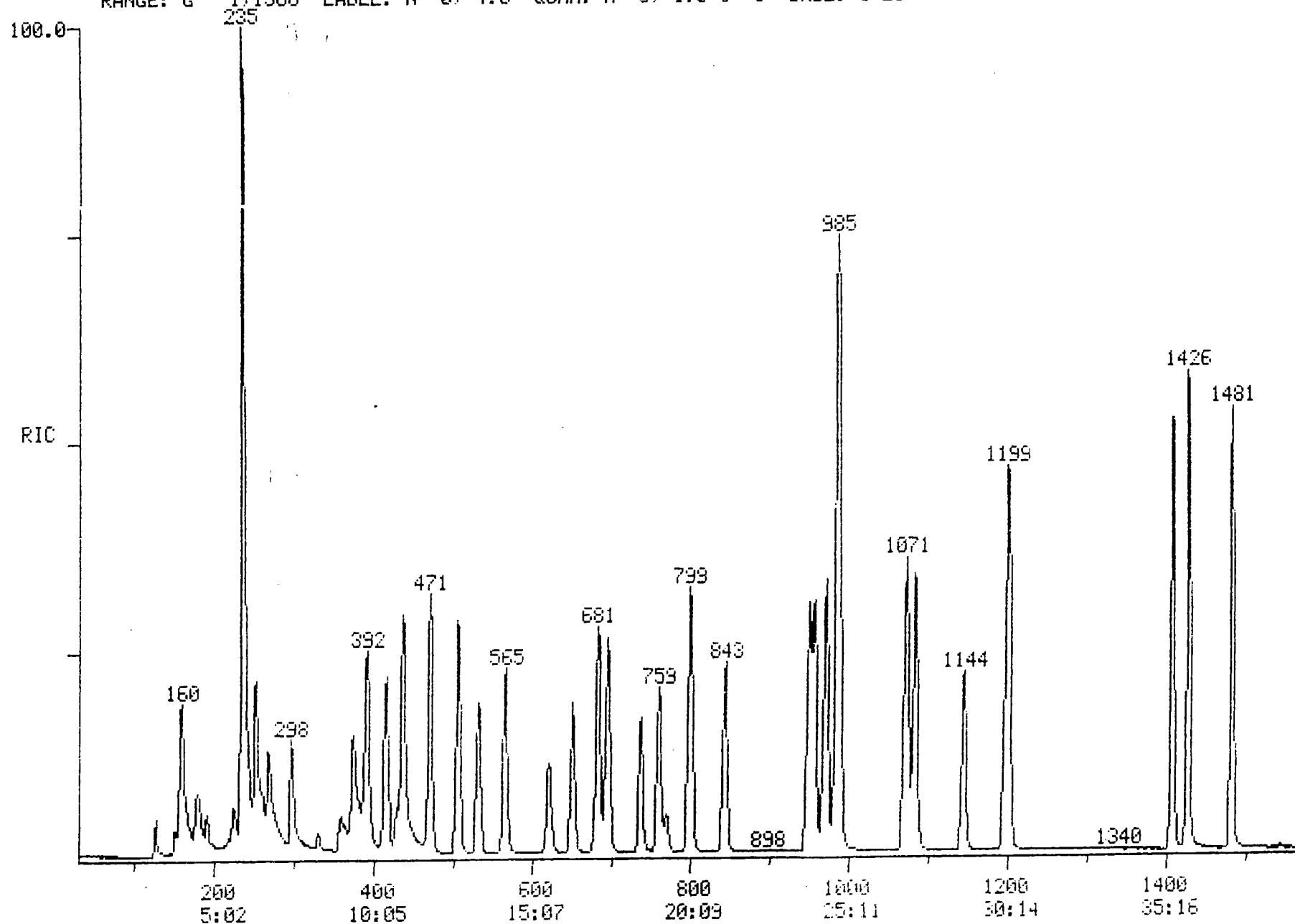
RANGE: G 1.1568 LABEL: N 0. 4.0 QUAN: A 0. 1.0 J 0 BASE: U 20. 3

DATA: CV0503 #48

SCANS 30 TO 1568

CALI: CV0503 #3

89728.



SCAN  
TIME

Quantitation Report File: CVD603

Data: CVD603.TI

06/03/94 11:59:00

Sample: 50 PPB VOA STD

Cond.: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
 Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | CI10 2-BUTANONE                         |
| 23 | CI15 1,1,1-TRICHLOROETHANE              |
| 24 | CI20 CARBON TETRACHLORIDE               |
| 25 | CI25 VINYL ACETATE                      |
| 26 | CI30 BROMO DICHLOROMETHANE              |
| 27 | CI40 1,2-DICHLOROPROPANE *              |
| 28 | CI45 TRANS-1,3 DICHLOROPROPENE          |
| 29 | CI50 TRICHLOROETHENE                    |
| 30 | CI55 DIBROMOCHLOROMETHANE               |
| 31 | CI60 1,1,2-TRICHLOROETHANE              |
| 32 | CI65 BENZENE                            |
| 33 | CI43 CIS-1,3-DICHLOROPROPENE            |
| 34 | CI75 2-CHLOROETHYL VINYL ETHER          |
| 35 | CI80 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROETHANE                 |
| 46 | C254 1,4-DICHLOROETHANE                 |

CJ0603

No Name  
48 C250 O-XYLENE

| No | m/z | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot |
|----|-----|------|-------|-----|-------|------|------------|-----------|------|
| 1  | 49  | 375  | 9:27  | 1   | 1.000 | A BB | 21762.     | 50.000 NG | 2.08 |
| 2  | 114 | 470  | 11:50 | 2   | 1.000 | A BB | 73132.     | 50.000 NG | 2.08 |
| 3  | 117 | 949  | 23:54 | 3   | 1.000 | A BB | 58537.     | 50.000 NG | 2.08 |
| 4  | 65  | 429  | 10:48 | 1   | 1.144 | A BB | 16482.     | 50.000 NG | 2.08 |
| 5  | 98  | 681  | 17:09 | 3   | 0.718 | A BB | 64831.     | 50.000 NG | 2.08 |
| 6  | 95  | 1200 | 30:14 | 3   | 1.264 | A BB | 54702.     | 50.000 NG | 2.08 |
| 7  | 50  | 152  | 3:50  | 1   | 0.405 | A BB | 9216.      | 50.000 NG | 2.08 |
| 8  | 94  | 179  | 4:31  | 1   | 0.477 | A BB | 14395.     | 50.000 NG | 2.08 |
| 9  | 62  | 157  | 3:57  | 1   | 0.419 | M XX | 10388.     | 50.000 NG | 2.08 |
| 10 | 64  | 182  | 4:35  | 1   | 0.485 | A BB | 6861.      | 50.000 NG | 2.08 |
| 11 | 49  | 252  | 6:21  | 1   | 0.672 | A BB | 20752.     | 50.000 NG | 2.08 |
| 12 | 56  | 216  | 5:26  | 1   | 0.576 | A BB | 1398.      | 50.000 NG | 2.08 |
| 13 | 43  | 220  | 5:33  | 1   | 0.587 | A BV | 5021.      | 50.000 NG | 2.08 |
| 14 | 53  | 262  | 6:36  | 1   | 0.699 | A BB | 2955.      | 50.000 NG | 2.08 |
| 15 | 76  | 253  | 6:22  | 1   | 0.675 | A BB | 34390.     | 50.000 NG | 2.08 |
| 16 | 96  | 225  | 5:40  | 1   | 0.600 | A BB | 8015.      | 50.000 NG | 2.08 |
| 17 | 63  | 300  | 7:33  | 1   | 0.800 | A BB | 8152.      | 50.000 NG | 2.08 |
| 18 | 61  | 270  | 6:48  | 1   | 0.720 | A BB | 18725.     | 50.000 NG | 2.08 |
| 19 | 101 | 192  | 4:50  | 1   | 0.512 | A BB | 6177.      | 50.000 NG | 2.08 |
| 20 | 83  | 360  | 9:04  | 1   | 0.960 | M XX | 17639.     | 50.000 NG | 2.08 |
| 21 | 62  | 439  | 11:04 | 1   | 1.171 | A BB | 16853.     | 50.000 NG | 2.08 |
| 22 | 43  | 332  | 8:22  | 2   | 0.706 | A BB | 7087.      | 50.000 NG | 2.08 |
| 23 | 97  | 392  | 9:52  | 2   | 0.834 | A BB | 41674.     | 50.000 NG | 2.08 |
| 24 | 117 | 416  | 10:29 | 2   | 0.885 | A BB | 39962.     | 50.000 NG | 2.08 |
| 25 | 43  | 298  | 7:30  | 2   | 0.634 | A BB | 36386.     | 50.000 NG | 2.08 |
| 26 | 83  | 565  | 14:14 | 2   | 1.202 | A BB | 42933.     | 50.000 NG | 2.08 |
| 27 | 63  | 532  | 13:24 | 2   | 1.132 | A BB | 19711.     | 50.000 NG | 2.08 |
| 28 | 75  | 650  | 16:22 | 2   | 1.383 | A BB | 29365.     | 50.000 NG | 2.08 |
| 29 | 95  | 506  | 12:45 | 2   | 1.077 | A BB | 26130.     | 50.000 NG | 2.08 |
| 30 | 129 | 843  | 21:14 | 2   | 1.794 | A BB | 43431.     | 50.000 NG | 2.08 |
| 31 | 97  | 759  | 19:07 | 2   | 1.615 | A BB | 21151.     | 50.000 NG | 2.08 |
| 32 | 78  | 437  | 11:00 | 2   | 0.930 | A BB | 52747.     | 50.000 NG | 2.08 |
| 33 | 75  | 736  | 18:32 | 2   | 1.566 | A BB | 25143.     | 50.000 NG | 2.08 |
| 34 | 63  | 694  | 17:29 | 2   | 1.477 | A BB | 5431.      | 50.000 NG | 2.08 |
| 35 | 173 | 1144 | 28:49 | 2   | 2.434 | A BB | 38523.     | 50.000 NG | 2.08 |
| 36 | 166 | 799  | 20:08 | 3   | 0.842 | A BB | 35491.     | 50.000 NG | 2.08 |
| 37 | 43  | 620  | 15:37 | 3   | 0.653 | A BB | 24033.     | 50.000 NG | 2.08 |
| 38 | 43  | 769  | 19:22 | 3   | 0.810 | A BB | 12353.     | 50.000 NG | 2.08 |
| 39 | 83  | 1196 | 30:08 | 3   | 1.260 | A BB | 35194.     | 50.000 NG | 2.08 |
| 40 | 91  | 693  | 17:27 | 3   | 0.730 | A BB | 65539.     | 50.000 NG | 2.08 |
| 41 | 112 | 956  | 24:05 | 3   | 1.007 | A BB | 55077.     | 50.000 NG | 2.08 |
| 42 | 106 | 970  | 24:26 | 3   | 1.022 | A BB | 24216.     | 50.000 NG | 2.08 |
| 43 | 104 | 1082 | 27:15 | 3   | 1.140 | A VB | 57937.     | 50.000 NG | 2.08 |
| 44 | 106 | 985  | 24:49 | 3   | 1.038 | A BB | 74285.     | 50.000 NG | 2.08 |
| 45 | 146 | 1406 | 35:25 | 3   | 1.482 | A BB | 67523.     | 50.000 NG | 2.08 |
| 46 | 146 | 1426 | 35:55 | 3   | 1.503 | A BB | 68610.     | 50.000 NG | 2.08 |
| 47 | 146 | 1481 | 37:18 | 3   | 1.561 | A BB | 62066.     | 50.000 NG | 2.08 |
| 48 | 106 | 1071 | 26:59 | 3   | 1.129 | A BB | 37944.     | 50.000 NG | 2.08 |



RAW DATA

## BROMOFLUOROBENZENE

ing Report  
04/21/94 10:01:00 + 4:24  
Instrument: FINN  
#175 to #177 summed  
Case Number:

Data: BFB421 # 176  
Cali: CALTAB # 3  
Analyst: UC

Base m/z: 95  
RIC: 166400.  
Acct. No.:

Laboratory:

Contract:

| m/z | Intensity | % RA  | Ion Abundance Criteria |       |      | Actual | Status |
|-----|-----------|-------|------------------------|-------|------|--------|--------|
|     |           |       | Min %                  | Max % | Mass |        |        |
| 50  | 6880.     | 17.6  | 15.0                   | 40.0  | 95   | 17.6   | PASS   |
| 75  | 17376.    | 44.4  | 30.0                   | 60.0  | 95   | 44.4   | PASS   |
| 95  | 39104.    | 100.0 | 100.0                  | ---   | ---  | 100.0  | PASS   |
| 96  | 3144.     | 8.0   | 5.0                    | 9.0   | 95   | 8.0    | PASS   |
| 173 | 0.        | 0.0   | ---                    | 2.0   | 174  | 0.0    | PASS   |
| 174 | 25664.    | 65.6  | 50.0                   | ---   | 95   | 65.6   | PASS   |
| 175 | 1790.     | 4.6   | 5.0                    | 9.0   | 174  | 7.0    | PASS   |
| 176 | 24704.    | 63.2  | 95.0                   | 101.0 | 174  | 96.3   | PASS   |
| 177 | 1574.     | 4.0   | 5.0                    | 9.0   | 176  | 6.4    | PASS   |

## Mass List

4/21/94 10:01:00 + 4:24

Data: BFB421 # 176

Base m/z: 95

Cali: CALTAB # 3

RIC: 166400.

Sample: SONG BFB MASS SPECTROMETER TUNE CHECK

Records: EPA METHOD 624

#175 to #177 summed

| Mass | % RA   | Inten. | Minima<br>Maxima<br>Mass | Min Inten:<br># 0 | Inten. |
|------|--------|--------|--------------------------|-------------------|--------|
| 34   | 0.00   | 0.     |                          |                   | 0.     |
| 193  |        |        |                          |                   |        |
| 34?  | 1.18   | 463.   | 128                      | 0.09              | 37.    |
| 36?  | 1.19   | 464.   | 141                      | 0.64              | 250.   |
| 37?  | 6.13   | 2396.  | 143                      | 0.67              | 263.   |
| 38?  | 4.94   | 1930.  | 174                      | 65.63             | 25664. |
| 39?  | 2.14   | 837.   | 175                      | 4.58              | 1790.  |
| 40?  | 0.92   | 359.   | 176                      | 63.18             | 24704. |
| 41?  | 0.66   | 260.   | 177                      | 4.03              | 1574.  |
| 43?  | 0.77   | 303.   | 193                      | 0.27              | 107.   |
| 44?  | 5.24   | 2048.  |                          |                   |        |
| 45?  | 0.97   | 378.   |                          |                   |        |
| 47?  | 1.26   | 492.   |                          |                   |        |
| 48?  | 0.49   | 190.   |                          |                   |        |
| 49?  | 3.72   | 1456.  |                          |                   |        |
| 50?  | 17.59  | 6880.  |                          |                   |        |
| 51?  | 5.34   | 2088.  |                          |                   |        |
| 55?  | 0.56   | 220.   |                          |                   |        |
| 56?  | 1.35   | 526.   |                          |                   |        |
| 57?  | 2.66   | 1042.  |                          |                   |        |
| 60?  | 0.65   | 253.   |                          |                   |        |
| 61?  | 3.91   | 1528.  |                          |                   |        |
| 62?  | 3.52   | 1376.  |                          |                   |        |
| 63?  | 2.56   | 1000.  |                          |                   |        |
| 68?  | 8.23   | 3220.  |                          |                   |        |
| 69   | 8.50   | 3324.  |                          |                   |        |
| 70   | 1.03   | 402.   |                          |                   |        |
| 72   | 0.23   | 91.    |                          |                   |        |
| 73   | 3.53   | 1380.  |                          |                   |        |
| 74   | 13.11  | 5128.  |                          |                   |        |
| 75   | 44.44  | 17376. |                          |                   |        |
| 76   | 3.74   | 1464.  |                          |                   |        |
| 77   | 0.60   | 234.   |                          |                   |        |
| 78   | 0.05   | 21.    |                          |                   |        |
| 79   | 1.92   | 751.   |                          |                   |        |
| 80   | 0.32   | 125.   |                          |                   |        |
| 81   | 2.04   | 798.   |                          |                   |        |
| 82   | 0.36   | 141.   |                          |                   |        |
| 87   | 3.53   | 1380.  |                          |                   |        |
| 88   | 3.43   | 1342.  |                          |                   |        |
| 89   | 0.04   | 16.    |                          |                   |        |
| 91   | 0.17   | 66.    |                          |                   |        |
| 92   | 2.06   | 806.   |                          |                   |        |
| 93   | 3.20   | 1252.  |                          |                   |        |
| 94   | 9.01   | 3524.  |                          |                   |        |
| 95   | 100.00 | 39104. |                          |                   |        |
| 96   | 8.04   | 3144.  |                          |                   |        |
| 97   | 0.22   | 85.    |                          |                   |        |
| 104  | 0.05   | 20.    |                          |                   |        |
| 117  | 0.27   | 107.   |                          |                   |        |
| 118  | 0.07   | 26.    |                          |                   |        |

MASS SPECTRUM

04/21/94 10:01:00 + 4:24

SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

CONDS.: EPA METHOD 624

TEMP: 160 DEG. C

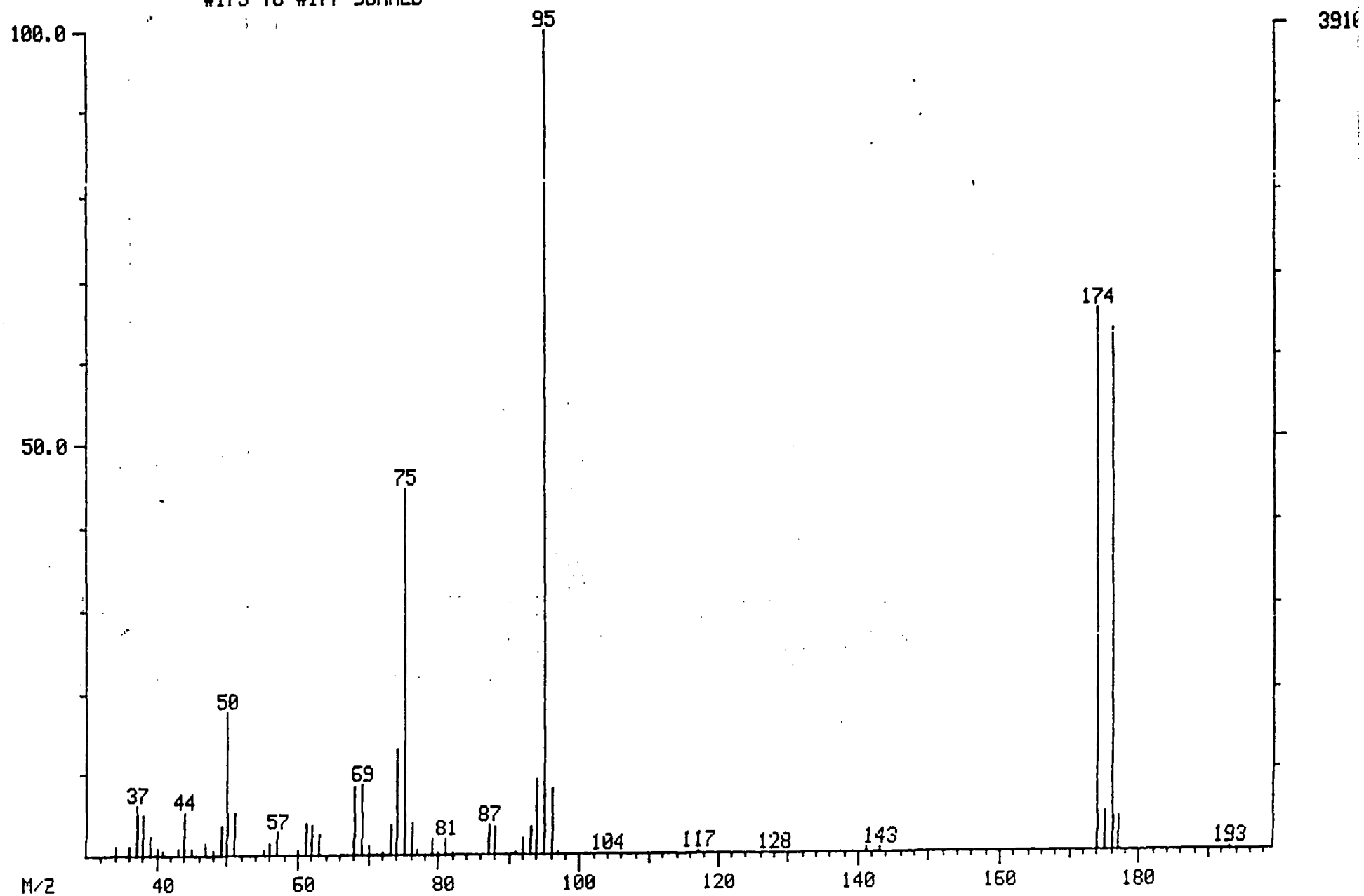
#175 TO #177 SUMMED

DATA: BFB421 #176

CALI: CALTAB #3

BASE M/Z: 95

RIC: 166400.



MASS CHROMATOGRAMS

04/21/94 10:01:00

SAMPLE: 50NG BFB

CONDS.: EPA METHOD 624

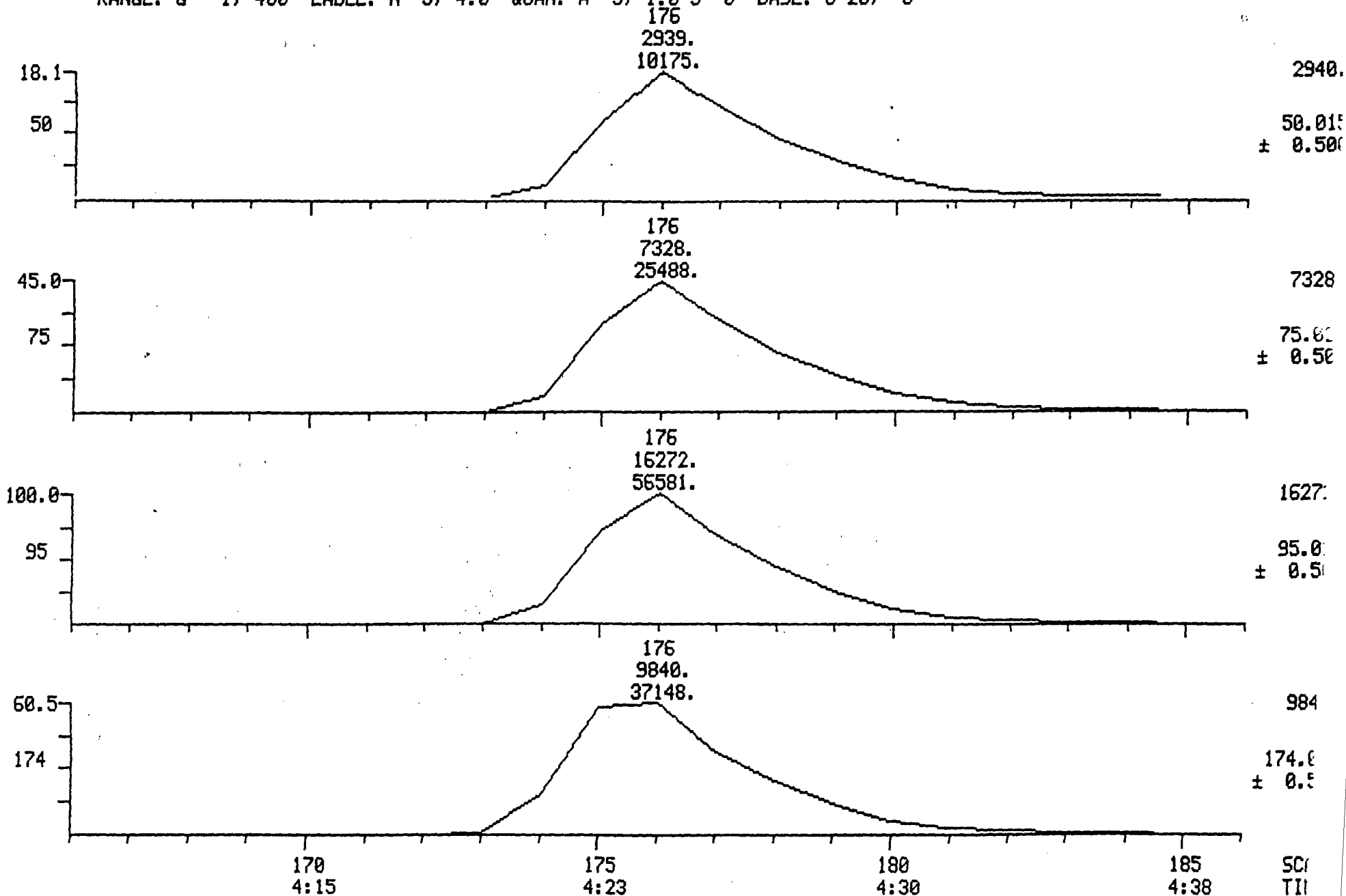
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

DATA: BFB421 #175

CALI: CALTAB #3

SCANS 166 TO 186

MASS SPECTROMETER TUNE CHECK



## BROMOFLUOROBENZENE

## Tuning Report

06/03/94 11:26:00 + 4:09

Instrument: FINN

#155 to #167 summed

Case Number:

Data: BFB603 # 166

Cali: CALTAB # 3

Analyst: UC

Laboratory:

Base m/z: 95

RIC: 94336.

Acct. No.: 2707-002

Contract:

## Ion Abundance Criteria

| m/z | Intensity | % RA  | Min % | Max % | Mass | Actual | Status |
|-----|-----------|-------|-------|-------|------|--------|--------|
| 50  | 3364.     | 16.5  | 15.0  | 40.0  | 95   | 16.5   | PASS   |
| 75  | 8784.     | 43.0  | 30.0  | 60.0  | 95   | 43.0   | PASS   |
| 95  | 20416.    | 100.0 | 100.0 | ---   | ---  | 100.0  | PASS   |
| 96  | 1376.     | 6.7   | 5.0   | 9.0   | 95   | 6.7    | PASS   |
| 173 | 0.        | 0.0   | ---   | 2.0   | 174  | 0.0    | PASS   |
| 174 | 18144.    | 88.9  | 50.0  | ---   | 95   | 88.9   | PASS   |
| 175 | 1260.     | 6.2   | 5.0   | 9.0   | 174  | 6.9    | PASS   |
| 176 | 17696.    | 86.7  | 95.0  | 101.0 | 174  | 97.5   | PASS   |
| 177 | 1126.     | 5.5   | 5.0   | 9.0   | 176  | 6.4    | PASS   |

## Mass List

Data: BFB603 # 166

Base m/z: 95

7/03/94 11:26:00 + 4:09

Cali: CALTAB # 3

RIC: 94336.

Sample: SONG BFB MASS SPECTROMETER TUNE CHECK

Conds.: EPA METHOD 624

#165 to #167 summed

| Mass | % RA   | Inten. | Minima<br>Maxima | Min<br># | Inten:<br>0 |
|------|--------|--------|------------------|----------|-------------|
| 34   | 0.00   | 0.     |                  |          | 0.          |
| 177  |        |        |                  |          |             |
| 34?  | 0.90   | 184    |                  |          |             |
| 35?  | 0.08   | 16.    |                  |          |             |
| 36?  | 0.86   | 175.   |                  |          |             |
| 37?  | 5.06   | 1034.  |                  |          |             |
| 38?  | 4.52   | 922.   |                  |          |             |
| 39?  | 1.53   | 312.   |                  |          |             |
| 40?  | 8.36   | 1706.  |                  |          |             |
| 44?  | 4.88   | 997.   |                  |          |             |
| 45?  | 0.52   | 106.   |                  |          |             |
| 47?  | 0.65   | 133.   |                  |          |             |
| 48?  | 0.17   | 35.    |                  |          |             |
| 49?  | 3.34   | 682.   |                  |          |             |
| 50?  | 16.48  | 3364.  |                  |          |             |
| 51?  | 4.87   | 994.   |                  |          |             |
| 56?  | 0.87   | 178.   |                  |          |             |
| 57?  | 2.01   | 410.   |                  |          |             |
| 60?  | 0.13   | 26.    |                  |          |             |
| 61?  | 3.59   | 732.   |                  |          |             |
| 62?  | 3.20   | 654.   |                  |          |             |
| 63?  | 2.10   | 429.   |                  |          |             |
| 68?  | 7.88   | 1608.  |                  |          |             |
| 69   | 7.85   | 1602.  |                  |          |             |
| 72   | 0.08   | 16.    |                  |          |             |
| 73   | 3.18   | 649.   |                  |          |             |
| 74   | 12.68  | 2588.  |                  |          |             |
| 75   | 43.03  | 8784.  |                  |          |             |
| 76   | 3.52   | 718.   |                  |          |             |
| 79   | 2.00   | 408.   |                  |          |             |
| 80   | 0.24   | 48.    |                  |          |             |
| 81   | 1.98   | 404.   |                  |          |             |
| 87   | 2.88   | 587.   |                  |          |             |
| 88   | 2.72   | 555.   |                  |          |             |
| 92   | 1.98   | 404.   |                  |          |             |
| 93   | 2.99   | 610.   |                  |          |             |
| 94   | 9.21   | 1880.  |                  |          |             |
| 95   | 100.00 | 20416. |                  |          |             |
| 96   | 6.74   | 1376.  |                  |          |             |
| 117  | 0.07   | 15.    |                  |          |             |
| 141  | 0.57   | 116.   |                  |          |             |
| 143  | 0.61   | 124.   |                  |          |             |
| 174  | 88.87  | 18144. |                  |          |             |
| 175  | 6.17   | 1260.  |                  |          |             |
| 176  | 86.68  | 17696. |                  |          |             |
| 177  | 5.52   | 1126.  |                  |          |             |

MASS SPECTRUM

06/03/94 11:26:00 + 4:09

SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

CONDS.: EPA METHOD 624

TEMP: 160 DEG. C

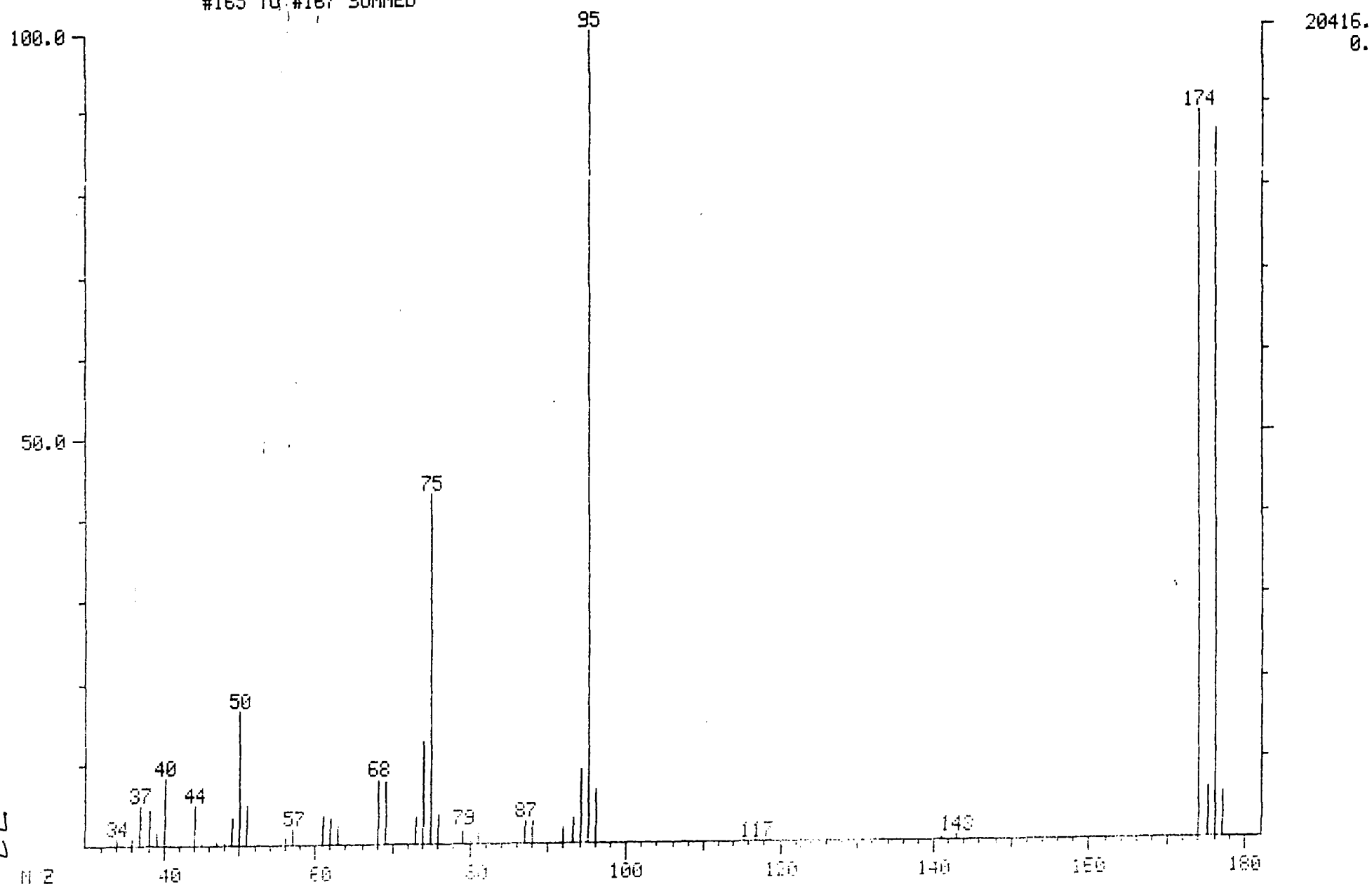
#165 TO #167 SUMMED

DATA: BFB603 #165

CALI: CALTAB #3

BASE M/Z: 95

RIC: 94336.





MASS CHROMATOGRAMS

06/03/94 11:26:00

SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK

CONDS.: EPA METHOD 624

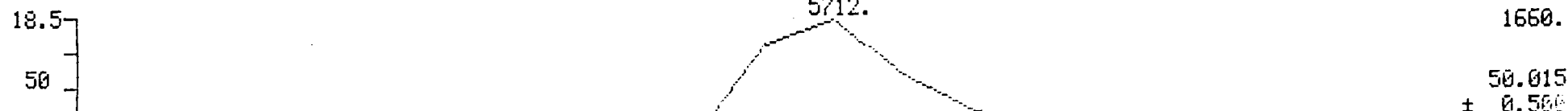
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

DATA: BFB003 #165

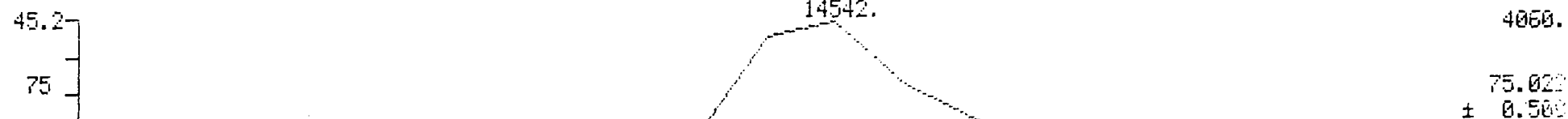
SCANS 156 TO 176

CALI: CALTAB #3

167  
1660.  
5712.



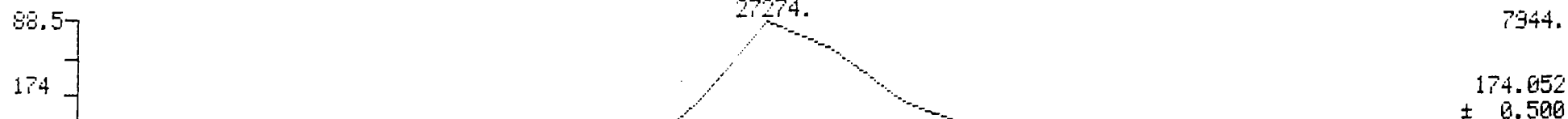
167  
4060.  
14542.



167  
8976.  
33012.



166  
7944.  
27274.



160  
4:00

165  
4:08

170  
4:16

175  
4:23

SCAN  
TIME

RIC

06/03/94 13:18:00

SAMPLE: M.BLK

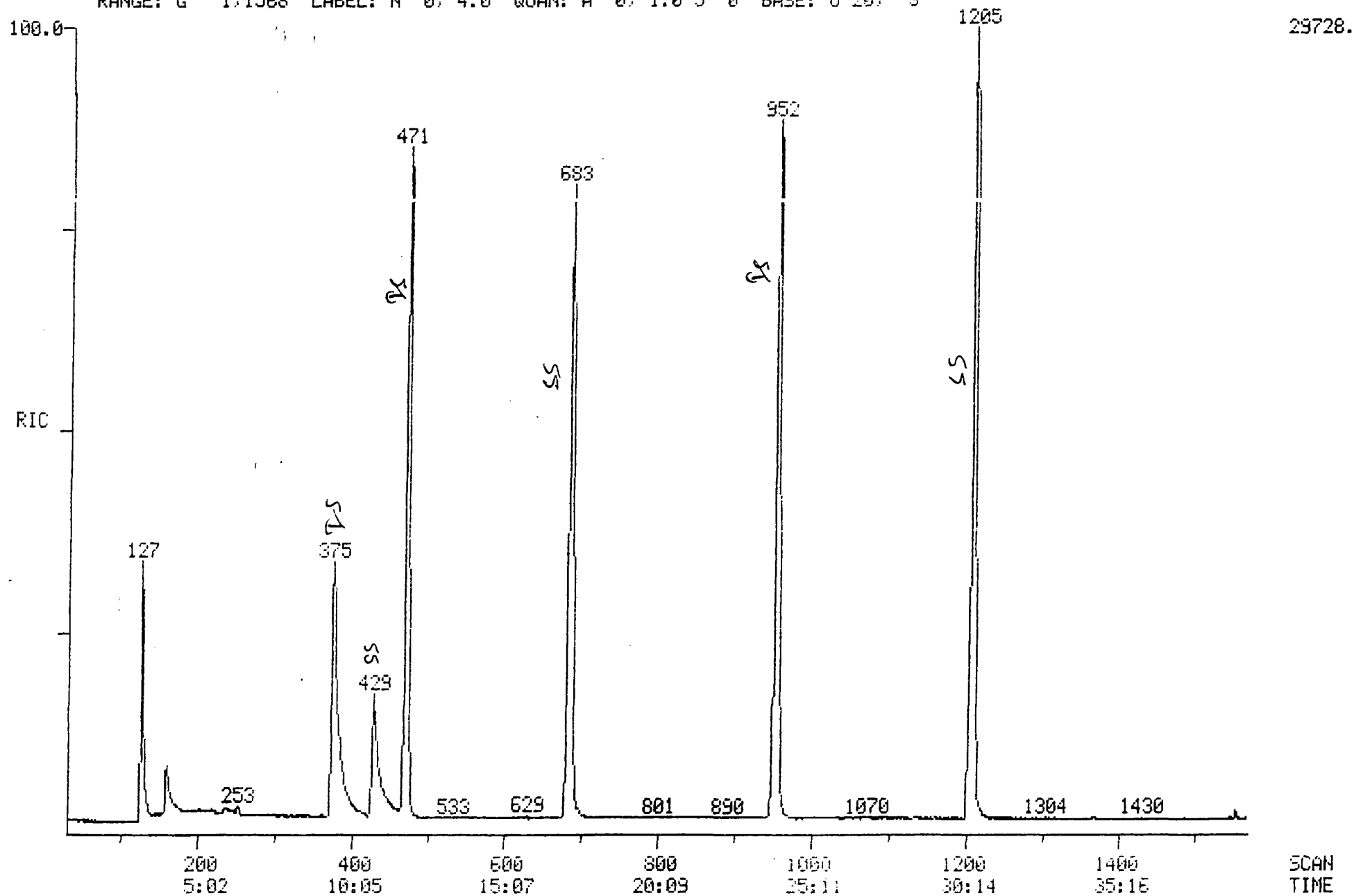
COND5.: EPA METHOD 8240

RANGE: G 1.1568 LABEL: N 0. 4.0 QUAN: A 0. 1.0 J 0 BASE: U 20. 3

DATA: CBLK603 #48

CALI: CBLK603 #3

SCANS 30 TO 1568



Quantitation Report File: CBLK603

Data: CBLK603.TI  
06/03/94 13:18:00

Sample: M.BLK

Conditions: EPA METHOD 8240

Formula: 5ML

Submitted by: PTL

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | C110 2-BUTANONE                         |
| 23 | C115 1,1,1-TRICHLOROETHANE              |
| 24 | C120 CARBON TETRACHLORIDE               |
| 25 | C125 VINYL ACETATE                      |
| 26 | C130 BROMO DICHLOROMETHANE              |
| 27 | C140 1,2-DICHLOROPROPANE *              |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE          |
| 29 | C150 TRICHLOROETHENE                    |
| 30 | C155 DIBROMOCHLOROMETHANE               |
| 31 | C160 1,1,2-TRICHLOROETHANE              |
| 32 | C165 BENZENE                            |
| 33 | C143 CIS-1,3-DICHLOROPROPENE            |
| 34 | C175 2-CHLOROETHYL VINYL ETHER          |
| 35 | C180 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROETHANE                 |
| 46 | C254 1,4-DICHLOROETHANE                 |

No Name  
48 C250 O-XYLENE

| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot  |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1  | 49        | 375  | 9:27  | 1   | 1.000 | A BB | 18304.     | 50.000 NG | 16.99 |
| 2  | 114       | 471  | 11:52 | 2   | 1.000 | A BB | 63429.     | 50.000 NG | 16.99 |
| 3  | 117       | 952  | 23:59 | 3   | 1.000 | A BB | 56775.     | 50.000 NG | 16.99 |
| 4  | 65        | 429  | 10:48 | 1   | 1.144 | A BB | 15018.     | 54.166 NG | 18.41 |
| 5  | 98        | 683  | 17:12 | 3   | 0.717 | A BB | 62425.     | 49.638 NG | 16.87 |
| 6  | 95        | 1206 | 30:23 | 3   | 1.267 | A BB | 42884.     | 40.415 NG | 13.74 |
| 7  | NOT FOUND |      |       |     |       |      |            |           |       |
| 8  | NOT FOUND |      |       |     |       |      |            |           |       |
| 9  | NOT FOUND |      |       |     |       |      |            |           |       |
| 10 | NOT FOUND |      |       |     |       |      |            |           |       |
| 11 | NOT FOUND |      |       |     |       |      |            |           |       |
| 12 | NOT FOUND |      |       |     |       |      |            |           |       |
| 13 | NOT FOUND |      |       |     |       |      |            |           |       |
| 14 | NOT FOUND |      |       |     |       |      |            |           |       |
| 15 | NOT FOUND |      |       |     |       |      |            |           |       |
| 16 | NOT FOUND |      |       |     |       |      |            |           |       |
| 17 | NOT FOUND |      |       |     |       |      |            |           |       |
| 18 | NOT FOUND |      |       |     |       |      |            |           |       |
| 19 | NOT FOUND |      |       |     |       |      |            |           |       |
| 20 | NOT FOUND |      |       |     |       |      |            |           |       |
| 21 | NOT FOUND |      |       |     |       |      |            |           |       |
| 22 | NOT FOUND |      |       |     |       |      |            |           |       |
| 23 | NOT FOUND |      |       |     |       |      |            |           |       |
| 24 | NOT FOUND |      |       |     |       |      |            |           |       |
| 25 | NOT FOUND |      |       |     |       |      |            |           |       |
| 26 | NOT FOUND |      |       |     |       |      |            |           |       |
| 27 | NOT FOUND |      |       |     |       |      |            |           |       |
| 28 | NOT FOUND |      |       |     |       |      |            |           |       |
| 29 | NOT FOUND |      |       |     |       |      |            |           |       |
| 30 | NOT FOUND |      |       |     |       |      |            |           |       |
| 31 | NOT FOUND |      |       |     |       |      |            |           |       |
| 32 | NOT FOUND |      |       |     |       |      |            |           |       |
| 33 | NOT FOUND |      |       |     |       |      |            |           |       |
| 34 | NOT FOUND |      |       |     |       |      |            |           |       |
| 35 | NOT FOUND |      |       |     |       |      |            |           |       |
| 36 | NOT FOUND |      |       |     |       |      |            |           |       |
| 37 | NOT FOUND |      |       |     |       |      |            |           |       |
| 38 | NOT FOUND |      |       |     |       |      |            |           |       |
| 39 | NOT FOUND |      |       |     |       |      |            |           |       |
| 40 | 91        | 696  | 17:32 | 3   | 0.731 | A BB | 242.       | 0.190 NG  | 0.06  |
| 41 | NOT FOUND |      |       |     |       |      |            |           |       |
| 42 | NOT FOUND |      |       |     |       |      |            |           |       |
| 43 | NOT FOUND |      |       |     |       |      |            |           |       |
| 44 | NOT FOUND |      |       |     |       |      |            |           |       |
| 45 | NOT FOUND |      |       |     |       |      |            |           |       |
| 46 | NOT FOUND |      |       |     |       |      |            |           |       |
| 47 | NOT FOUND |      |       |     |       |      |            |           |       |
| 48 | NOT FOUND |      |       |     |       |      |            |           |       |

108  
99  
81

No Name  
48 C250 O-XYLENE

| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot |
|----|-----------|------|-------|-----|-------|------|------------|-----------|------|
| 1  | 49        | 377  | 9:30  | 1   | 1.000 | A BB | 22767.     | 50.000 NG | 8.97 |
| 2  | 114       | 473  | 11:55 | 2   | 1.000 | A BB | 70578.     | 50.000 NG | 8.97 |
| 3  | 117       | 951  | 23:57 | 3   | 1.000 | A BB | 60273.     | 50.000 NG | 8.97 |
| 4  | 65        | 431  | 10:51 | 1   | 1.143 | A BB | 17645.     | 52.901 NG | 9.49 |
| 5  | 98        | 683  | 17:12 | 3   | 0.718 | A BB | 69002.     | 51.410 NG | 9.22 |
| 6  | 95        | 1203 | 30:18 | 3   | 1.265 | A BB | 46155.     | 41.101 NG | 7.37 |
| 7  | NOT FOUND |      |       |     |       |      |            |           |      |
| 8  | NOT FOUND |      |       |     |       |      |            |           |      |
| 9  | NOT FOUND |      |       |     |       |      |            |           |      |
| 10 | NOT FOUND |      |       |     |       |      |            |           |      |
| 11 | 49        | 255  | 6:25  | 1   | 0.676 | A BB | 3256.      | 7.147 NG  | 1.28 |
| 12 | NOT FOUND |      |       |     |       |      |            |           |      |
| 13 | NOT FOUND |      |       |     |       |      |            |           |      |
| 14 | NOT FOUND |      |       |     |       |      |            |           |      |
| 15 | NOT FOUND |      |       |     |       |      |            |           |      |
| 16 | 96        | 227  | 5:43  | 1   | 0.602 | A BB | 7557.      | 50.450 NG | 9.05 |
| 17 | NOT FOUND |      |       |     |       |      |            |           |      |
| 18 | NOT FOUND |      |       |     |       |      |            |           |      |
| 19 | NOT FOUND |      |       |     |       |      |            |           |      |
| 20 | NOT FOUND |      |       |     |       |      |            |           |      |
| 21 | NOT FOUND |      |       |     |       |      |            |           |      |
| 22 | NOT FOUND |      |       |     |       |      |            |           |      |
| 23 | NOT FOUND |      |       |     |       |      |            |           |      |
| 24 | NOT FOUND |      |       |     |       |      |            |           |      |
| 25 | NOT FOUND |      |       |     |       |      |            |           |      |
| 26 | NOT FOUND |      |       |     |       |      |            |           |      |
| 27 | NOT FOUND |      |       |     |       |      |            |           |      |
| 28 | NOT FOUND |      |       |     |       |      |            |           |      |
| 29 | 95        | 509  | 12:49 | 2   | 1.076 | A BB | 28625.     | 53.816 NG | 9.65 |
| 30 | NOT FOUND |      |       |     |       |      |            |           |      |
| 31 | NOT FOUND |      |       |     |       |      |            |           |      |
| 32 | 78        | 439  | 11:04 | 2   | 0.928 | A BB | 54400.     | 46.879 NG | 8.41 |
| 33 | NOT FOUND |      |       |     |       |      |            |           |      |
| 34 | NOT FOUND |      |       |     |       |      |            |           |      |
| 35 | NOT FOUND |      |       |     |       |      |            |           |      |
| 36 | NOT FOUND |      |       |     |       |      |            |           |      |
| 37 | NOT FOUND |      |       |     |       |      |            |           |      |
| 38 | NOT FOUND |      |       |     |       |      |            |           |      |
| 39 | NOT FOUND |      |       |     |       |      |            |           |      |
| 40 | 91        | 696  | 17:32 | 3   | 0.732 | A BB | 72468.     | 51.209 NG | 9.19 |
| 41 | 112       | 958  | 24:08 | 3   | 1.007 | A BB | 60512.     | 52.705 NG | 9.45 |
| 42 | NOT FOUND |      |       |     |       |      |            |           |      |
| 43 | NOT FOUND |      |       |     |       |      |            |           |      |
| 44 | NOT FOUND |      |       |     |       |      |            |           |      |
| 45 | NOT FOUND |      |       |     |       |      |            |           |      |
| 46 | NOT FOUND |      |       |     |       |      |            |           |      |
| 47 | NOT FOUND |      |       |     |       |      |            |           |      |
| 48 | NOT FOUND |      |       |     |       |      |            |           |      |

PROCEDURE: FILTER/TIC

DIAGNOSTIC REPORT

6/03/94 14:19:09

DATA FILE: CBLK603

FILTER SCAN PARAMETERS

MAX NUMBER TICS: 15  
TABLE ENTRIES: 528  
SCAN TOLERANCE: 2  
MIN RIC HT. [%]: 10  
FIRST SCAN: 1  
LAST SCAN: 1600  
TIC THRESHOLD: 600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY: LIBRARYLS  
NBS SEARCH PROC: SERLIB  
PEAK FINDER PROC: VOME  
TCA I.S. LL: LS  
FILE NAME LIST: TCAREF2

TARGET COMPOUND ANALYSIS:

| TARGETS<br>(QUAN LIST) | IS<br>PEAKS | TOTAL TARGET<br>PEAKS |
|------------------------|-------------|-----------------------|
| 4                      | 3           | 7                     |

FILTER PROCESSING:

| <-----REJECT PEAKS-----> |               |                |                 |               |                  |                  |               |
|--------------------------|---------------|----------------|-----------------|---------------|------------------|------------------|---------------|
| TOTAL<br>PEAKS           | < 1ST<br>SCAN | > LAST<br>SCAN | < MIN<br>RIC HT | < SCAN<br>TOL | > MAX #<br>PEAKS | TOTAL<br>REJECTS | TOTAL<br>TICS |
| 6                        | 0             | 0              | 0               | 6             | 0                | 6                | 0             |

NO UNKNOWN PEAKS TO BE IDENTIFIED.

RIC

05/26/94 18:12:00

SAMPLE: 2712-001-02 1503.2 MS

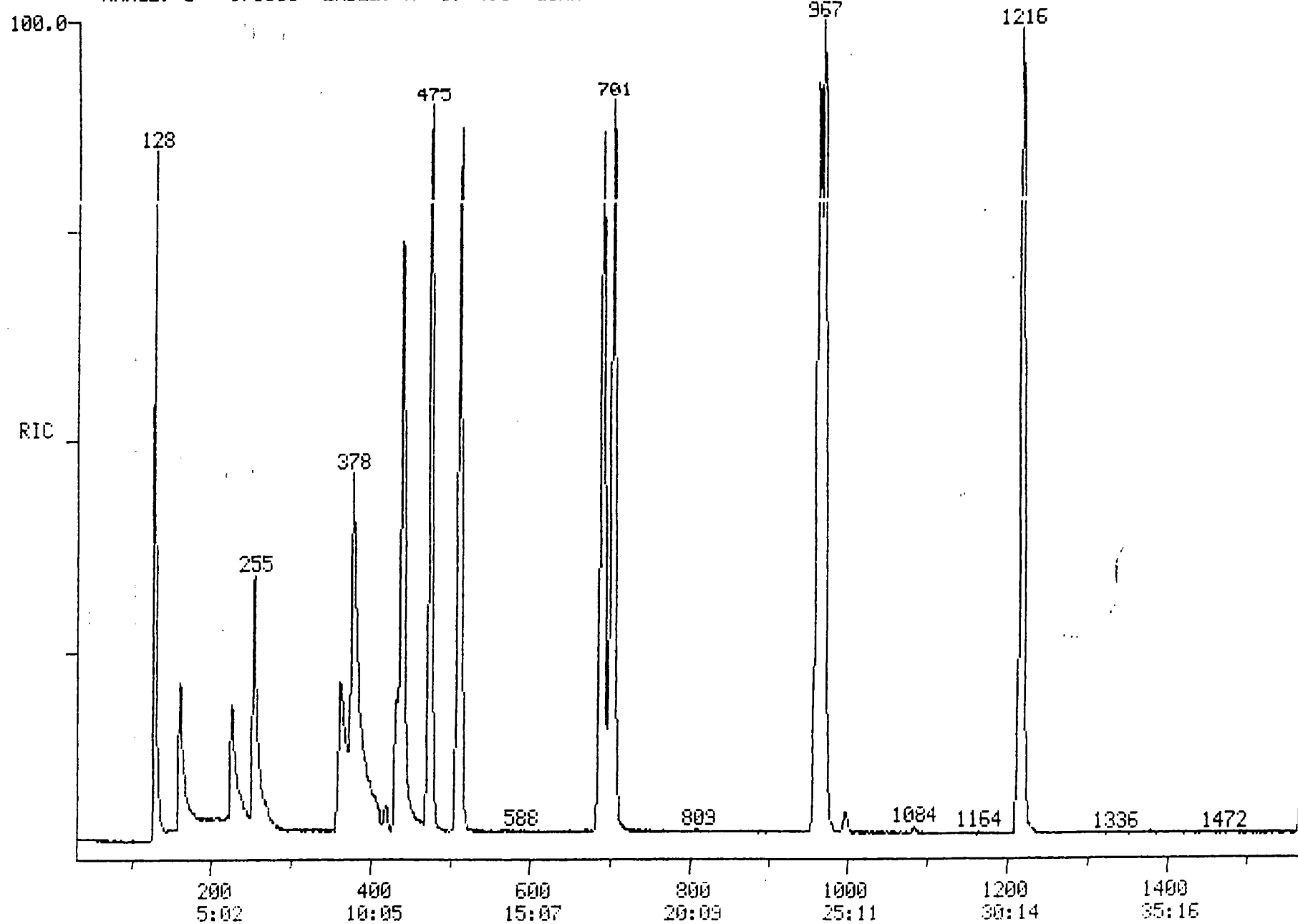
CONDS.: EPA METHOD 8240

RANGE: G 1.1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C7736 #48

CALI: C7736 #3

SCANS 30 TO 1568



29

SC  
T1

Quantitation Report File: C7736

Data: C7736.TI

05/26/94 18:12:00

Sample: 2712-001-02 1503.2 MS

Conds.: EPA METHOD 8240

Formula: 2.5G/5ML

Instrument: FINN

Submitted by: USARMY

Analyst: UC

Weight: 0.000

Acct. No.: 2712-001

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | C110 2-BUTANONE                         |
| 23 | C115 1,1,1-TRICHLOROETHANE              |
| 24 | C120 CARBON TETRACHLORIDE               |
| 25 | C125 VINYL ACETATE                      |
| 26 | C130 BROMO DICHLOROMETHANE              |
| 27 | C140 1,2-DICHLOROPROPANE *              |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE          |
| 29 | C150 TRICHLOROETHENE                    |
| 30 | C155 DIBROMOCHLOROMETHANE               |
| 31 | C160 1,1,2-TRICHLOROETHANE              |
| 32 | C165 BENZENE                            |
| 33 | C143 CIS-1,3-DICHLOROPROPENE            |
| 34 | C175 2-CHLOROETHYL VINYL ETHER          |
| 35 | C180 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROBENZENE                |



No Name  
48 C250 O-XYLENE

| No | m/z       | Scan | Time  | Ref | RRT   | Meth | Area(Hght) | Amount    | %Tot  |
|----|-----------|------|-------|-----|-------|------|------------|-----------|-------|
| 1  | 49        | 378  | 9:31  | 1   | 1.000 | A BB | 19670.     | 50.000 NG | 7.38  |
| 2  | 114       | 475  | 11:58 | 2   | 1.000 | A BB | 64625.     | 50.000 NG | 7.38  |
| 3  | 117       | 960  | 24:11 | 3   | 1.000 | A BB | 59175.     | 50.000 NG | 7.38  |
| 4  | 65        | 433  | 10:54 | 1   | 1.146 | A BB | 15721.     | 54.556 NG | 8.05  |
| 5  | 98        | 688  | 17:20 | 3   | 0.717 | A BB | 65747.     | 49.893 NG | 7.36  |
| 6  | 95        | 1216 | 30:38 | 3   | 1.267 | A BB | 43950.     | 39.864 NG | 5.88  |
| 7  | NOT FOUND |      |       |     |       |      |            |           |       |
| 8  | NOT FOUND |      |       |     |       |      |            |           |       |
| 9  | NOT FOUND |      |       |     |       |      |            |           |       |
| 10 | NOT FOUND |      |       |     |       |      |            |           |       |
| 11 | 49        | 255  | 6:25  | 1   | 0.675 | A BB | 18282.     | 46.446 NG | 6.85  |
| 12 | NOT FOUND |      |       |     |       |      |            |           |       |
| 13 | NOT FOUND |      |       |     |       |      |            |           |       |
| 14 | NOT FOUND |      |       |     |       |      |            |           |       |
| 15 | NOT FOUND |      |       |     |       |      |            |           |       |
| 16 | 96        | 227  | 5:43  | 1   | 0.601 | A BB | 7820.      | 60.426 NG | 8.91  |
| 17 | NOT FOUND |      |       |     |       |      |            |           |       |
| 18 | NOT FOUND |      |       |     |       |      |            |           |       |
| 19 | NOT FOUND |      |       |     |       |      |            |           |       |
| 20 | 83        | 362  | 9:07  | 1   | 0.958 | A BB | 19748.     | 68.613 NG | 10.12 |
| 21 | NOT FOUND |      |       |     |       |      |            |           |       |
| 22 | NOT FOUND |      |       |     |       |      |            |           |       |
| 23 | NOT FOUND |      |       |     |       |      |            |           |       |
| 24 | 117       | 420  | 10:35 | 2   | 0.884 | A BB | 1806.      | 2.459 NG  | 0.36  |
| 25 | NOT FOUND |      |       |     |       |      |            |           |       |
| 26 | NOT FOUND |      |       |     |       |      |            |           |       |
| 27 | NOT FOUND |      |       |     |       |      |            |           |       |
| 28 | NOT FOUND |      |       |     |       |      |            |           |       |
| 29 | 95        | 511  | 12:52 | 2   | 1.076 | A BB | 26423.     | 54.251 NG | 8.00  |
| 30 | NOT FOUND |      |       |     |       |      |            |           |       |
| 31 | NOT FOUND |      |       |     |       |      |            |           |       |
| 32 | 78        | 440  | 11:05 | 2   | 0.926 | A BB | 49243.     | 46.344 NG | 6.84  |
| 33 | NOT FOUND |      |       |     |       |      |            |           |       |
| 34 | NOT FOUND |      |       |     |       |      |            |           |       |
| 35 | NOT FOUND |      |       |     |       |      |            |           |       |
| 36 | NOT FOUND |      |       |     |       |      |            |           |       |
| 37 | NOT FOUND |      |       |     |       |      |            |           |       |
| 38 | NOT FOUND |      |       |     |       |      |            |           |       |
| 39 | NOT FOUND |      |       |     |       |      |            |           |       |
| 40 | 91        | 701  | 17:39 | 3   | 0.730 | A BB | 71575.     | 51.516 NG | 7.60  |
| 41 | 112       | 967  | 24:22 | 3   | 1.007 | A BB | 58345.     | 51.760 NG | 7.64  |
| 42 | 106       | 997  | 25:07 | 3   | 1.039 | A BB | 973.       | 1.952 NG  | 0.29  |
| 43 | NOT FOUND |      |       |     |       |      |            |           |       |
| 44 | NOT FOUND |      |       |     |       |      |            |           |       |
| 45 | NOT FOUND |      |       |     |       |      |            |           |       |
| 46 | NOT FOUND |      |       |     |       |      |            |           |       |
| 47 | NOT FOUND |      |       |     |       |      |            |           |       |
| 48 | NOT FOUND |      |       |     |       |      |            |           |       |

RIC

05/26/94 19:01:00

SAMPLE: 2712-001-02 1503.2 MSD

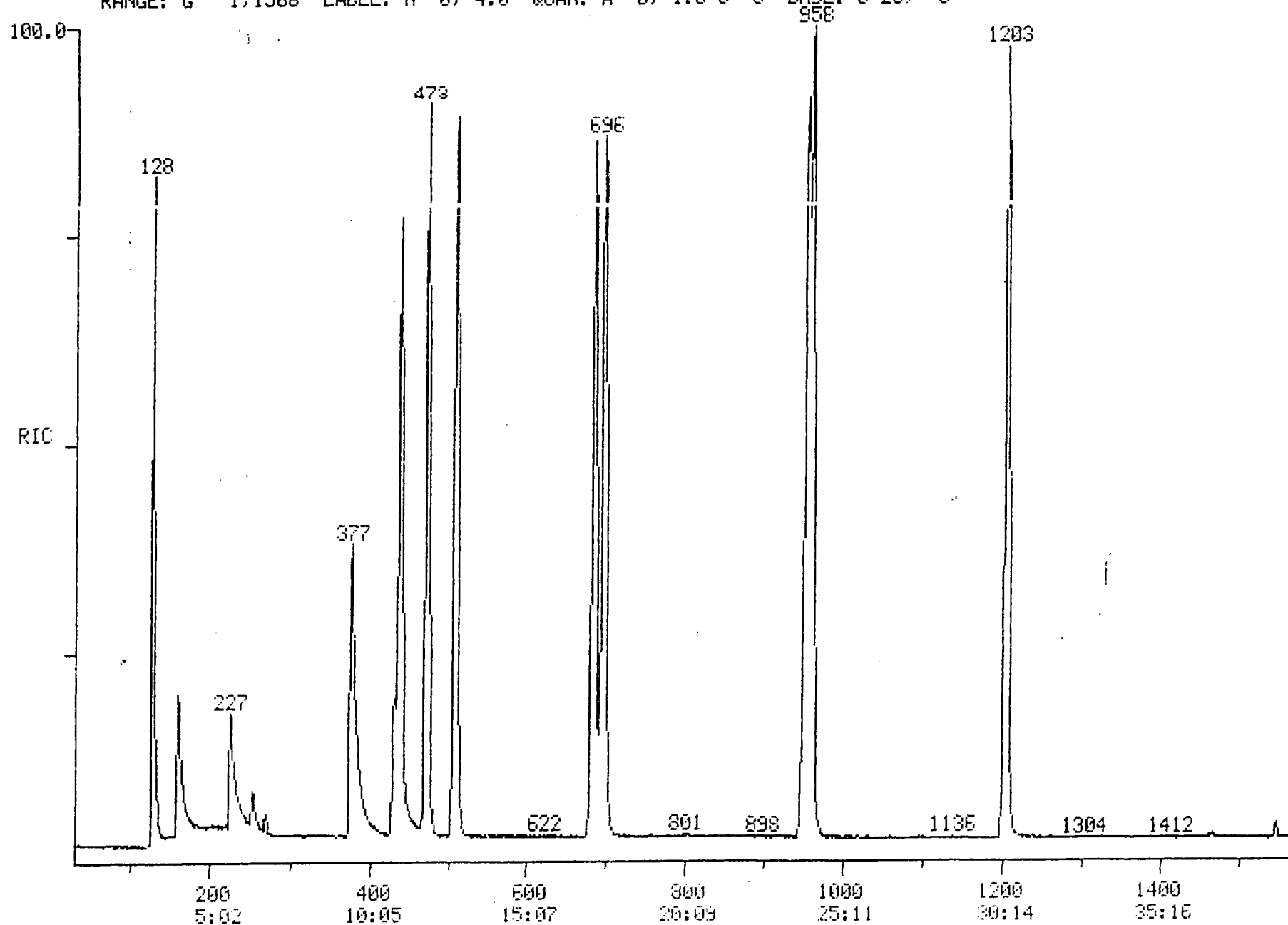
CONDS.: EPA METHOD 8240

RANGE: G 1.1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: C7737 #48

CALI: C7737 #3

SCANS 30 TO 1568



31

Quantitation Report File: C7737

Data: C7737.TI

05/26/94 19:01:00

Sample: 2712-001-02 1503.2 MSD

Conds.: EPA METHOD 8240

Formula: 2.5G/5ML

Submitted by: USARMY

Instrument: FINN

Analyst: UC

Weight: 0.000

Acct. No.: 2712-001

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)  
Resp. fac. from Library Entry

| No | Name                                    |
|----|-----------------------------------------|
| 1  | CI01 BROMOCHLOROMETHANE **INT. STD. **  |
| 2  | CI10 1,4-DIFLUOROBENZENE **INT. STD. ** |
| 3  | CI20 CHLOROBENZENE-D5 **INT. STD. **    |
| 4  | CS15 1,2-DICHLOROETHANE-D4 **S. STD. ** |
| 5  | CS05 TOLUENE-D8 **S. STD. **            |
| 6  | CS10 4-BROMOFLUOROBENZENE **S. STD. **  |
| 7  | CO10 CHLOROMETHANE **                   |
| 8  | CO15 BROMOMETHANE                       |
| 9  | CO20 VINYL CHLORIDE *                   |
| 10 | CO25 CHLOROETHANE                       |
| 11 | CO30 METHYLENE CHLORIDE                 |
| 12 | C251 ACROLIN                            |
| 13 | CO35 ACETONE                            |
| 14 | C252 ACRYLONITRILE                      |
| 15 | CO40 CARBON DISULFIDE                   |
| 16 | CO45 1,1-DICHLOROETHENE *               |
| 17 | CO50 1,1-DICHLOROETHANE **              |
| 18 | CO55 TRANS-1,2-DICHLOROETHENE           |
| 19 | CO00 TRICHLOROFLUOROMETHANE             |
| 20 | CO60 CHLOROFORM *                       |
| 21 | CO65 1,2-DICHLOROETHANE                 |
| 22 | C110 2-BUTANONE                         |
| 23 | C115 1,1,1-TRICHLOROETHANE              |
| 24 | C120 CARBON TETRACHLORIDE               |
| 25 | C125 VINYL ACETATE                      |
| 26 | C130 BROMO DICHLOROMETHANE              |
| 27 | C140 1,2-DICHLOROPROPANE *              |
| 28 | C145 TRANS-1,3 DICHLOROPROPENE          |
| 29 | C150 TRICHLOROETHENE                    |
| 30 | C155 DIBROMOCHLOROMETHANE               |
| 31 | C160 1,1,2-TRICHLOROETHANE              |
| 32 | C165 BENZENE                            |
| 33 | C143 CIS-1,3-DICHLOROPROPENE            |
| 34 | C175 2-CHLOROETHYL VINYL ETHER          |
| 35 | C180 BROMOFORM **                       |
| 36 | C220 TETRACHLOROETHENE                  |
| 37 | C210 2-HEXANONE                         |
| 38 | C205 4-METHYL 2-PENTANONE               |
| 39 | C225 1,1,2,2-TETRACHLOROETHANE **       |
| 40 | C230 TOLUENE *                          |
| 41 | C235 CHLOROBENZENE **                   |
| 42 | C240 ETHYL BENZENE *                    |
| 43 | C245 STYRENE                            |
| 44 | C250 M+P-XYLENES                        |
| 45 | C253 1,3-DICHLOROBENZENE                |

INORGANICS

**FULL INORGANICS  
COMPLETE SDG FILE (CSF)  
INVENTORY SHEET**

Lab Name: Princeton Testing Lab

City/State: Princeton NJ

Case No. 9402817-01 SDG No. 1510.1 SDG Nos. to Follow:                     

SAS No.        Contract No. F1 M111 SOW No. ILM02.0

All documents delivered in the Complete SDG File must be original documents where possible. (Reference Exhibit B, Section II D and Section III V)

|                                                                     | Page Nos. |    | (Please Check:)                     |        |
|---------------------------------------------------------------------|-----------|----|-------------------------------------|--------|
|                                                                     | From      | To | Lab                                 | Region |
| 1. Inventory Sheet (DC-2) (Do not number)                           |           |    | <input checked="" type="checkbox"/> |        |
| 2. Cover Page                                                       |           |    | <input checked="" type="checkbox"/> |        |
| 3. Inorganic Analysis<br>Data Sheet (Form I-IN)                     |           |    | <input checked="" type="checkbox"/> |        |
| 4. Initial & Continuing Calibration<br>Verification (Form IIA-IN)   |           |    | <input checked="" type="checkbox"/> |        |
| 5. CRDL Standards For AA and ICP<br>(Form IIB-IN)                   |           |    | <input checked="" type="checkbox"/> |        |
| 6. Blanks (Form III-IN)                                             |           |    | <input checked="" type="checkbox"/> |        |
| 7. ICP Interference Check <i>N/A</i><br>Sample (Form IV-IN)         |           |    |                                     |        |
| 8. Spike Sample Recovery (Form VA-IN)                               |           |    | <input checked="" type="checkbox"/> |        |
| 9. Post Digest Spike <i>N/A</i><br>Sample Recovery (Form VB-IN)     |           |    |                                     |        |
| 10. Duplicates (Form VI-IN)                                         |           |    | <input checked="" type="checkbox"/> |        |
| 11. Laboratory Control Sample<br>(Form VII-IN)                      |           |    | <input checked="" type="checkbox"/> |        |
| 12. Standard Addition Results <i>N/A</i><br>(Form VIII-IN)          |           |    |                                     |        |
| 13. ICP Serial Dilutions (Form IX-IN) <i>N/A</i>                    |           |    |                                     |        |
| 14. Instrument Detection Limits<br>(Form X-IN)                      |           |    | <input checked="" type="checkbox"/> |        |
| 15. ICP Interelement Correction Factors <i>N/A</i><br>(Form XIA-IN) |           |    |                                     |        |
| 16. ICP Interelement Correction Factors <i>N/A</i><br>(Form XIB-IN) |           |    |                                     |        |
| 17. ICP Linear Ranges (Form XII-IN) <i>N/A</i>                      |           |    |                                     |        |
| 18. Preparation Log (Form XIII-IN)                                  |           |    | <input checked="" type="checkbox"/> |        |
| 19. Analysis Run Log (Form XIV-IN)                                  |           |    | <input checked="" type="checkbox"/> |        |
| 20. ICP Raw Data <i>N/A</i>                                         |           |    |                                     |        |
| 21. Furnace AA Raw Data                                             |           |    | <input checked="" type="checkbox"/> |        |
| 22. Mercury Raw Data <i>N/A</i>                                     |           |    |                                     |        |

|                                                                               | Page Nos. |       | (Please Check:) |        |
|-------------------------------------------------------------------------------|-----------|-------|-----------------|--------|
|                                                                               | From      | To    | Lab             | Region |
| 23. Cyanide Raw Data      N/A                                                 | _____     | _____ | _____           | _____  |
| 24. Preparation Logs Raw Data                                                 | _____     | _____ | ✓               | _____  |
| 25. Percent Solids Determination Log                                          | _____     | _____ | ✓               | _____  |
| 26. Traffic Report                                                            | _____     | _____ | _____           | _____  |
| 27. EPA Shipping/Receiving Documents                                          |           |       |                 |        |
| Airbill (No. of Shipments _____)                                              | _____     | _____ | _____           | _____  |
| Chain-of-Custody Records                                                      | _____     | _____ | _____           | _____  |
| Sample Tags                                                                   | _____     | _____ | _____           | _____  |
| Sample Log-In Sheet (Lab & DC1)                                               | _____     | _____ | _____           | _____  |
| SDG Cover Sheet                                                               | _____     | _____ | _____           | _____  |
| 28. Misc. Shipping/Receiving Records                                          |           |       |                 |        |
| (list all individual records)                                                 |           |       |                 |        |
| Telephone Logs                                                                | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| 29. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list) | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| 30. Internal Original Sample Prep & Analysis Records (describe or list)       |           |       |                 |        |
| Prep Records _____                                                            | _____     | _____ | _____           | _____  |
| Analysis Records _____                                                        | _____     | _____ | _____           | _____  |
| Description _____                                                             | _____     | _____ | _____           | _____  |
| 31. Other Records (describe or list)                                          |           |       |                 |        |
| Telephone Communication Log                                                   | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| _____                                                                         | _____     | _____ | _____           | _____  |
| 32. Comments:                                                                 |           |       |                 |        |
| _____                                                                         |           |       |                 |        |
| _____                                                                         |           |       |                 |        |

Completed by (CLP Lab):

W. Alan Volis  
(Signature)

W. ALAN VOLIS QA/QC COORDINATOR  
(Print Name & Title)

6/29/94  
(Date)

Audited by (EPA):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name & Title)

\_\_\_\_\_  
(Date)

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_  
Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No. \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Lab Sample ID.

1510.1  
1510.2  
1511.1  
1511.2

2817-001  
2817-002  
2817-004  
2817-003

Were ICP background corrections applied? Yes/No \_\_\_\_\_  
If yes, were raw data generated before application of background corrections? Yes/No \_\_\_\_\_

The samples were run by GORD.

Signature: Laura Stewart Name: LAURA STEWART  
Date: 6/23/94 Title: SUPERVISOR, METALS LAB

## U.S. EPA - CLP

EPA SAMPLE NO.

1  
INORGANIC ANALYSIS DATA SHEET1510.1 Building 2000  
Site A-2Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix (soil/water): Soil Lab Sample ID: 2817-001Level (low/med): \_\_\_\_\_ Date Received: 6/1/94% Solids: 70.0Concentration Units (ug/L or mg/kg dry weight): mg/kg

| CAS No.   | Analyte   | Concentration | C | Q | M |
|-----------|-----------|---------------|---|---|---|
| 7429-90-5 | Aluminum  |               |   |   |   |
| 7440-36-0 | Antimony  |               |   |   |   |
| 7440-38-2 | Arsenic   |               |   |   |   |
| 7440-39-3 | Barium    |               |   |   |   |
| 7440-41-7 | Beryllium |               |   |   |   |
| 7440-43-9 | Cadmium   |               |   |   |   |
| 7440-70-2 | Calcium   |               |   |   |   |
| 7440-47-3 | Chromium  |               |   |   |   |
| 7440-48-4 | Cobalt    |               |   |   |   |
| 7440-50-8 | Copper    |               |   |   |   |
| 7439-89-6 | Iron      |               |   |   |   |
| 7439-92-1 | Lead      | 3.37          |   |   | F |
| 7439-95-4 | Magnesium |               |   |   |   |
| 7439-96-5 | Manganese |               |   |   |   |
| 7439-97-6 | Mercury   |               |   |   |   |
| 7440-02-0 | Nickel    |               |   |   |   |
| 7440-09-7 | Potassium |               |   |   |   |
| 7782-49-2 | Selenium  |               |   |   |   |
| 7440-22-4 | Silver    |               |   |   |   |
| 7440-23-5 | Sodium    |               |   |   |   |
| 7440-28-0 | Thallium  |               |   |   |   |
| 7440-62-2 | Vanadium  |               |   |   |   |
| 7440-66-6 | Zinc      |               |   |   |   |
|           | Cyanide   |               |   |   |   |

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_  
Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

FORM I - IN

ILMO2.0



1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1510.2 Building 2000  
Site F-2

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix (soil/water): Soil Lab Sample ID: 2817-002

Level (low/med): 71.2 Date Received: 6/1/94

% Solids: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight): mg/kg

| CAS No.   | Analyte   | Concentration | C | Q | M        |
|-----------|-----------|---------------|---|---|----------|
| 7429-90-5 | Aluminum  |               |   |   |          |
| 7440-36-0 | Antimony  |               |   |   |          |
| 7440-38-2 | Arsenic   |               |   |   |          |
| 7440-39-3 | Barium    |               |   |   |          |
| 7440-41-7 | Beryllium |               |   |   |          |
| 7440-43-9 | Cadmium   |               |   |   |          |
| 7440-70-2 | Calcium   |               |   |   |          |
| 7440-47-3 | Chromium  |               |   |   |          |
| 7440-48-4 | Cobalt    |               |   |   |          |
| 7440-50-8 | Copper    |               |   |   |          |
| 7439-89-6 | Iron      |               |   |   |          |
| 7439-92-1 | Lead      | <u>3.39</u>   |   |   | <u>F</u> |
| 7439-95-4 | Magnesium |               |   |   |          |
| 7439-96-5 | Manganese |               |   |   |          |
| 7439-97-6 | Mercury   |               |   |   |          |
| 7440-02-0 | Nickel    |               |   |   |          |
| 7440-09-7 | Potassium |               |   |   |          |
| 7782-49-2 | Selenium  |               |   |   |          |
| 7440-22-4 | Silver    |               |   |   |          |
| 7440-23-5 | Sodium    |               |   |   |          |
| 7440-28-0 | Thallium  |               |   |   |          |
| 7440-62-2 | Vanadium  |               |   |   |          |
| 7440-66-6 | Zinc      |               |   |   |          |
|           | Cyanide   |               |   |   |          |

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_  
Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

FORM I - IN

ILMO2.0

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U.S. EPA - CLP

EPA SAMPLE NO.

1  
INORGANIC ANALYSIS DATA SHEET1511.2 - Blank Building  
recLab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix (soil/water): Water Lab Sample ID: 2817-003Level (low/med): \_\_\_\_\_ Date Received: 6/1/94

% Solids: \_\_\_\_\_

Concentration Units (ug/L or m/kg dry weight): ug/L

| CAS No.   | Analyte   | Concentration | C | Q | M        |
|-----------|-----------|---------------|---|---|----------|
| 7429-90-5 | Aluminum  |               |   |   |          |
| 7440-36-0 | Antimony  |               |   |   |          |
| 7440-38-2 | Arsenic   |               |   |   |          |
| 7440-39-3 | Barium    |               |   |   |          |
| 7440-41-7 | Beryllium |               |   |   |          |
| 7440-43-9 | Cadmium   |               |   |   |          |
| 7440-70-2 | Calcium   |               |   |   |          |
| 7440-47-3 | Chromium  |               |   |   |          |
| 7440-48-4 | Cobalt    |               |   |   |          |
| 7440-50-8 | Copper    |               |   |   |          |
| 7439-89-6 | Iron      |               |   |   |          |
| 7439-92-1 | Lead      | <u>4.7</u>    |   |   | <u>F</u> |
| 7439-95-4 | Magnesium |               |   |   |          |
| 7439-96-5 | Manganese |               |   |   |          |
| 7439-97-6 | Mercury   |               |   |   |          |
| 7440-02-0 | Nickel    |               |   |   |          |
| 7440-09-7 | Potassium |               |   |   |          |
| 7782-49-2 | Selenium  |               |   |   |          |
| 7440-22-4 | Silver    |               |   |   |          |
| 7440-23-5 | Sodium    |               |   |   |          |
| 7440-28-0 | Thallium  |               |   |   |          |
| 7440-62-2 | Vanadium  |               |   |   |          |
| 7440-66-6 | Zinc      |               |   |   |          |
|           | Cyanide   |               |   |   |          |

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_  
Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Spex 19

Concentration Units: ug/L

(For soils)

| Analyte   | Initial Calibration |       |       | Continuing Calibration |       |       |       |       | M |
|-----------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
|           | True                | Found | %R(1) | True                   | Found | %R(1) | Found | %R(1) |   |
| Aluminum  |                     |       |       |                        |       |       |       |       |   |
| Antimony  |                     |       |       |                        |       |       |       |       |   |
| Arsenic   |                     |       |       |                        |       |       |       |       |   |
| Barium    |                     |       |       |                        |       |       |       |       |   |
| Beryllium |                     |       |       |                        |       |       |       |       |   |
| Cadmium   |                     |       |       |                        |       |       |       |       |   |
| Calcium   |                     |       |       |                        |       |       |       |       |   |
| Chromium  |                     |       |       |                        |       |       |       |       |   |
| Cobalt    |                     |       |       |                        |       |       |       |       |   |
| Copper    |                     |       |       |                        |       |       |       |       |   |
| Iron      |                     |       |       |                        |       |       |       |       |   |
| Lead      | 15.0                | 15.4  | 103.  | 50.0                   | 52.4  | 105.  | 53.1  | 106.  | F |
| Magnesium |                     |       |       |                        |       |       |       |       |   |
| Manganese |                     |       |       |                        |       |       |       |       |   |
| Mercury   |                     |       |       |                        |       |       |       |       |   |
| Nickel    |                     |       |       |                        |       |       |       |       |   |
| Potassium |                     |       |       |                        |       |       |       |       |   |
| Selenium  |                     |       |       |                        |       |       |       |       |   |
| Silver    |                     |       |       |                        |       |       |       |       |   |
| Sodium    |                     |       |       |                        |       |       |       |       |   |
| Thallium  |                     |       |       |                        |       |       |       |       |   |
| Vanadium  |                     |       |       |                        |       |       |       |       |   |
| Zinc      |                     |       |       |                        |       |       |       |       |   |
| Cyanide   |                     |       |       |                        |       |       |       |       |   |

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

Concentration Units: ug/L

(For soils)

| Analyte   | Initial Calibration |       |       | Continuing Calibration |       |       |       |       | M |
|-----------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
|           | True                | Found | %R(1) | True                   | Found | %R(1) | Found | %R(1) |   |
| Aluminum  |                     |       |       |                        |       |       |       |       |   |
| Antimony  |                     |       |       |                        |       |       |       |       |   |
| Arsenic   |                     |       |       |                        |       |       |       |       |   |
| Barium    |                     |       |       |                        |       |       |       |       |   |
| Beryllium |                     |       |       |                        |       |       |       |       |   |
| Cadmium   |                     |       |       |                        |       |       |       |       |   |
| Calcium   |                     |       |       |                        |       |       |       |       |   |
| Chromium  |                     |       |       |                        |       |       |       |       |   |
| Cobalt    |                     |       |       |                        |       |       |       |       |   |
| Copper    |                     |       |       |                        |       |       |       |       |   |
| Iron      |                     |       |       |                        |       |       |       |       |   |
| Lead      |                     |       |       | 50.0                   | 50.1  | 100.  | 50.4  | 101.  | F |
| Magnesium |                     |       |       |                        |       |       |       |       |   |
| Manganese |                     |       |       |                        |       |       |       |       |   |
| Mercury   |                     |       |       |                        |       |       |       |       |   |
| Nickel    |                     |       |       |                        |       |       |       |       |   |
| Potassium |                     |       |       |                        |       |       |       |       |   |
| Selenium  |                     |       |       |                        |       |       |       |       |   |
| Silver    |                     |       |       |                        |       |       |       |       |   |
| Sodium    |                     |       |       |                        |       |       |       |       |   |
| Thallium  |                     |       |       |                        |       |       |       |       |   |
| Vanadium  |                     |       |       |                        |       |       |       |       |   |
| Zinc      |                     |       |       |                        |       |       |       |       |   |
| Cyanide   |                     |       |       |                        |       |       |       |       |   |

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Spex 19

Concentration Units: ug/L

(For WATER)

| Analyte   | Initial Calibration |       |       | Continuing Calibration |       |       |       |       | M |
|-----------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
|           | True                | Found | %R(1) | True                   | Found | %R(1) | Found | %R(1) |   |
| Aluminum  |                     |       |       |                        |       |       |       |       |   |
| Antimony  |                     |       |       |                        |       |       |       |       |   |
| Arsenic   |                     |       |       |                        |       |       |       |       |   |
| Barium    |                     |       |       |                        |       |       |       |       |   |
| Beryllium |                     |       |       |                        |       |       |       |       |   |
| Cadmium   |                     |       |       |                        |       |       |       |       |   |
| Calcium   |                     |       |       |                        |       |       |       |       |   |
| Chromium  |                     |       |       |                        |       |       |       |       |   |
| Cobalt    |                     |       |       |                        |       |       |       |       |   |
| Copper    |                     |       |       |                        |       |       |       |       |   |
| Iron      |                     |       |       |                        |       |       |       |       |   |
| Lead      | 15.0                | 15.4  | 103.  | 50.0                   | 50.1  | 100.  | 50.4  | 101.  | F |
| Magnesium |                     |       |       |                        |       |       |       |       |   |
| Manganese |                     |       |       |                        |       |       |       |       |   |
| Mercury   |                     |       |       |                        |       |       |       |       |   |
| Nickel    |                     |       |       |                        |       |       |       |       |   |
| Potassium |                     |       |       |                        |       |       |       |       |   |
| Selenium  |                     |       |       |                        |       |       |       |       |   |
| Silver    |                     |       |       |                        |       |       |       |       |   |
| Sodium    |                     |       |       |                        |       |       |       |       |   |
| Thallium  |                     |       |       |                        |       |       |       |       |   |
| Vanadium  |                     |       |       |                        |       |       |       |       |   |
| Zinc      |                     |       |       |                        |       |       |       |       |   |
| Cyanide   |                     |       |       |                        |       |       |       |       |   |

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 940287-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

Concentration Units: ug/L

(For Water)

| Analyte   | Initial Calibration |       |       | Continuing Calibration |       |       |       |       | M |
|-----------|---------------------|-------|-------|------------------------|-------|-------|-------|-------|---|
|           | True                | Found | %R(1) | True                   | Found | %R(1) | Found | %R(1) |   |
| Aluminum  |                     |       |       |                        |       |       |       |       |   |
| Antimony  |                     |       |       |                        |       |       |       |       |   |
| Arsenic   |                     |       |       |                        |       |       |       |       |   |
| Barium    |                     |       |       |                        |       |       |       |       |   |
| Beryllium |                     |       |       |                        |       |       |       |       |   |
| Cadmium   |                     |       |       |                        |       |       |       |       |   |
| Calcium   |                     |       |       |                        |       |       |       |       |   |
| Chromium  |                     |       |       |                        |       |       |       |       |   |
| Cobalt    |                     |       |       |                        |       |       |       |       |   |
| Copper    |                     |       |       |                        |       |       |       |       |   |
| Iron      |                     |       |       |                        |       |       |       |       |   |
| Lead      |                     |       |       | 50.0                   | 50.2  | 100.  |       |       | F |
| Magnesium |                     |       |       |                        |       |       |       |       |   |
| Manganese |                     |       |       |                        |       |       |       |       |   |
| Mercury   |                     |       |       |                        |       |       |       |       |   |
| Nickel    |                     |       |       |                        |       |       |       |       |   |
| Potassium |                     |       |       |                        |       |       |       |       |   |
| Selenium  |                     |       |       |                        |       |       |       |       |   |
| Silver    |                     |       |       |                        |       |       |       |       |   |
| Sodium    |                     |       |       |                        |       |       |       |       |   |
| Thallium  |                     |       |       |                        |       |       |       |       |   |
| Vanadium  |                     |       |       |                        |       |       |       |       |   |
| Zinc      |                     |       |       |                        |       |       |       |       |   |
| Cyanide   |                     |       |       |                        |       |       |       |       |   |

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2B

## CRDL STANDARD FOR AA AND ICP

Lab Name: Pawcaton Testing Lab

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: 9402817-001

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

AA CRDL Standard Source: Baker

ICP CRDL Standard Source: \_\_\_\_\_

Concentration Units: ug/L

*(for soils + field blank.)*

| Analyte   | CRDL Standard for AA |       |     | CRDL Standard for ICP |                  |    |                |    |
|-----------|----------------------|-------|-----|-----------------------|------------------|----|----------------|----|
|           | True                 | Found | %R  | True                  | Initial<br>Found | %R | Final<br>Found | %R |
| Aluminum  |                      |       |     |                       |                  |    |                |    |
| Antimony  |                      |       |     |                       |                  |    |                |    |
| Arsenic   |                      |       |     |                       |                  |    |                |    |
| Barium    |                      |       |     |                       |                  |    |                |    |
| Beryllium |                      |       |     |                       |                  |    |                |    |
| Cadmium   |                      |       |     |                       |                  |    |                |    |
| Calcium   |                      |       |     |                       |                  |    |                |    |
| Chromium  |                      |       |     |                       |                  |    |                |    |
| Cobalt    |                      |       |     |                       |                  |    |                |    |
| Copper    |                      |       |     |                       |                  |    |                |    |
| Iron      |                      |       |     |                       |                  |    |                |    |
| Lead      | 3.0                  | 2.76  | 92. |                       |                  |    |                |    |
| Magnesium |                      |       |     |                       |                  |    |                |    |
| Manganese |                      |       |     |                       |                  |    |                |    |
| Mercury   |                      |       |     |                       |                  |    |                |    |
| Nickel    |                      |       |     |                       |                  |    |                |    |
| Potassium |                      |       |     |                       |                  |    |                |    |
| Selenium  |                      |       |     |                       |                  |    |                |    |
| Silver    |                      |       |     |                       |                  |    |                |    |
| Sodium    |                      |       |     |                       |                  |    |                |    |
| Thallium  |                      |       |     |                       |                  |    |                |    |
| Vanadium  |                      |       |     |                       |                  |    |                |    |
| Zinc      |                      |       |     |                       |                  |    |                |    |



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3  
BLANKS

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 940207-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/kg

(For soils)

| Analyte   | Initial<br>Calibr.<br>Bank<br>(ug/L) | C | Continuing Calibration<br>Blank (ug/L) |   |      |   |      |   | Prepa-<br>ration<br>Blank | C | M |
|-----------|--------------------------------------|---|----------------------------------------|---|------|---|------|---|---------------------------|---|---|
|           |                                      |   | 1                                      | C | 2    | C | 3    | C |                           |   |   |
| Aluminum  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Antimony  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Arsenic   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Barium    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Beryllium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cadmium   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Calcium   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Chromium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cobalt    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Copper    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Iron      |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Lead      | 0.51                                 | u | 0.51                                   | u | 0.51 | u | 0.51 | u | 0.117                     | R | F |
| Magnesium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Manganese |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Mercury   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Nickel    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Potassium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Selenium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Silver    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Sodium    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Thallium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Vanadium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Zinc      |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cyanide   |                                      |   |                                        |   |      |   |      |   |                           |   |   |

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3  
BLANKS

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (ug/L or mg/kg): \_\_\_\_\_

(For soils)

| Analyte   | Initial<br>Calibr.<br>Bank<br>(ug/L) | C | Continuing Calibration<br>Blank (ug/L) |   |   |   |   |   | Prepa-<br>ration<br>Blank | C | M |
|-----------|--------------------------------------|---|----------------------------------------|---|---|---|---|---|---------------------------|---|---|
|           |                                      |   | X 4                                    | C | 2 | C | 3 | C |                           |   |   |
| Aluminum  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Antimony  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Arsenic   |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Barium    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Beryllium |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Cadmium   |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Calcium   |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Chromium  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Cobalt    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Copper    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Iron      |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Lead      |                                      |   | 0.51                                   | u |   |   |   |   |                           |   | E |
| Magnesium |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Manganese |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Mercury   |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Nickel    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Potassium |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Selenium  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Silver    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Sodium    |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Thallium  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Vanadium  |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Zinc      |                                      |   |                                        |   |   |   |   |   |                           |   |   |
| Cyanide   |                                      |   |                                        |   |   |   |   |   |                           |   |   |

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3  
BLANKS

Lab Name: Princeton Testing Lab

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: 9402817-001

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

(FOR WATER)

| Analyte   | Initial<br>Calib.<br>Blank<br>(ug/L) | C | Continuing Calibration<br>Blank (ug/L) |   |      |   |      |   | Prepa-<br>ration<br>Blank | C | M |
|-----------|--------------------------------------|---|----------------------------------------|---|------|---|------|---|---------------------------|---|---|
|           |                                      |   | 1                                      | C | 2    | C | 3    | C |                           |   |   |
| Aluminum  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Antimony  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Arsenic   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Barium    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Beryllium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cadmium   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Calcium   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Chromium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cobalt    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Copper    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Iron      |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Lead      | 0.51                                 | U | 0.51                                   | U | 0.51 | U | 0.51 | U | 0.51                      | U | F |
| Magnesium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Manganese |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Mercury   |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Nickel    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Potassium |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Selenium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Silver    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Sodium    |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Thallium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Vanadium  |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Zinc      |                                      |   |                                        |   |      |   |      |   |                           |   |   |
| Cyanide   |                                      |   |                                        |   |      |   |      |   |                           |   |   |

% Solids for Sample: 79.5Concentration Units (ug/L or mg/kg dry weight): mg/kg

| Analyte   | Control<br>Limit<br>%R | Spiked Sample<br>Result (SSR) | C | Sample<br>Result (SR) | C | Spike<br>Added (SA) | %R  | Q | M |
|-----------|------------------------|-------------------------------|---|-----------------------|---|---------------------|-----|---|---|
| Aluminum  |                        |                               |   |                       |   |                     |     |   |   |
| Antimony  |                        |                               |   |                       |   |                     |     |   |   |
| Arsenic   |                        |                               |   |                       |   |                     |     |   |   |
| Barium    |                        |                               |   |                       |   |                     |     |   |   |
| Beryllium |                        |                               |   |                       |   |                     |     |   |   |
| Cadmium   |                        |                               |   |                       |   |                     |     |   |   |
| Calcium   |                        |                               |   |                       |   |                     |     |   |   |
| Chromium  |                        |                               |   |                       |   |                     |     |   |   |
| Cobalt    |                        |                               |   |                       |   |                     |     |   |   |
| Copper    |                        |                               |   |                       |   |                     |     |   |   |
| Iron      |                        |                               |   |                       |   |                     |     |   |   |
| Lead      |                        | 6.40                          |   | 2.61                  |   | 4.0                 | 95. |   | F |
| Magnesium |                        |                               |   |                       |   |                     |     |   |   |
| Manganese |                        |                               |   |                       |   |                     |     |   |   |
| Mercury   |                        |                               |   |                       |   |                     |     |   |   |
| Nickel    |                        |                               |   |                       |   |                     |     |   |   |
| Potassium |                        |                               |   |                       |   |                     |     |   |   |
| Selenium  |                        |                               |   |                       |   |                     |     |   |   |
| Silver    |                        |                               |   |                       |   |                     |     |   |   |
| Sodium    |                        |                               |   |                       |   |                     |     |   |   |
| Thallium  |                        |                               |   |                       |   |                     |     |   |   |
| Vanadium  |                        |                               |   |                       |   |                     |     |   |   |
| Zinc      |                        |                               |   |                       |   |                     |     |   |   |
| Cyanide   |                        |                               |   |                       |   |                     |     |   |   |

Comments:

## U.S. EPA - CLP

5A  
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: Pennator Testing Lab

Contract: \_\_\_\_\_

1511.2

Lab Code: \_\_\_\_\_

Case No.: 9402817-001 SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Matrix (soil/water): WATER

Level (low/med): \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight): ug/L

| Analyte   | Control<br>Limit<br>%R | Spiked Sample<br>Result (SSR) | C | Sample<br>Result (SR) | C | Spike<br>Added (SA) | %R         | Q | M        |
|-----------|------------------------|-------------------------------|---|-----------------------|---|---------------------|------------|---|----------|
| Aluminum  |                        |                               |   |                       |   |                     |            |   |          |
| Antimony  |                        |                               |   |                       |   |                     |            |   |          |
| Arsenic   |                        |                               |   |                       |   |                     |            |   |          |
| Barium    |                        |                               |   |                       |   |                     |            |   |          |
| Beryllium |                        |                               |   |                       |   |                     |            |   |          |
| Cadmium   |                        |                               |   |                       |   |                     |            |   |          |
| Calcium   |                        |                               |   |                       |   |                     |            |   |          |
| Chromium  |                        |                               |   |                       |   |                     |            |   |          |
| Cobalt    |                        |                               |   |                       |   |                     |            |   |          |
| Copper    |                        |                               |   |                       |   |                     |            |   |          |
| Iron      |                        |                               |   |                       |   |                     |            |   |          |
| Lead      |                        | <u>82.0</u>                   |   | <u>4.7</u>            |   | <u>80.0</u>         | <u>97.</u> |   | <u>F</u> |
| Magnesium |                        |                               |   |                       |   |                     |            |   |          |
| Manganese |                        |                               |   |                       |   |                     |            |   |          |
| Mercury   |                        |                               |   |                       |   |                     |            |   |          |
| Nickel    |                        |                               |   |                       |   |                     |            |   |          |
| Potassium |                        |                               |   |                       |   |                     |            |   |          |
| Selenium  |                        |                               |   |                       |   |                     |            |   |          |
| Silver    |                        |                               |   |                       |   |                     |            |   |          |
| Sodium    |                        |                               |   |                       |   |                     |            |   |          |
| Thallium  |                        |                               |   |                       |   |                     |            |   |          |
| Vanadium  |                        |                               |   |                       |   |                     |            |   |          |
| Zinc      |                        |                               |   |                       |   |                     |            |   |          |
| Cyanide   |                        |                               |   |                       |   |                     |            |   |          |

Comments:

U.S. EPA - CLP

6  
DUPLICATES

EPA SAMPLE NO.

1511.1

Lab Name: PRINCETON TESTING LABORATORY Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix (soil/water): soil Level (low/med): \_\_\_\_\_

% Solids for sample: 79.5

Concentration Units (ug/L or mg/kg dry weight): mg/kg

| Analyte   | Control Limit | Sample (S) | C | Duplicate D | C | RPD | Q | M |
|-----------|---------------|------------|---|-------------|---|-----|---|---|
| Aluminum  |               |            |   |             |   |     |   |   |
| Antimony  |               |            |   |             |   |     |   |   |
| Arsenic   |               |            |   |             |   |     |   |   |
| Barium    |               |            |   |             |   |     |   |   |
| Beryllium |               |            |   |             |   |     |   |   |
| Cadmium   |               |            |   |             |   |     |   |   |
| Calcium   |               |            |   |             |   |     |   |   |
| Chromium  |               |            |   |             |   |     |   |   |
| Cobalt    |               |            |   |             |   |     |   |   |
| Copper    |               |            |   |             |   |     |   |   |
| Iron      |               |            |   |             |   |     |   |   |
| Lead      | 20%           | 2.61       |   | 2.43        |   | 7%  |   | F |
| Magnesium |               |            |   |             |   |     |   |   |
| Manganese |               |            |   |             |   |     |   |   |
| Mercury   |               |            |   |             |   |     |   |   |
| Nickel    |               |            |   |             |   |     |   |   |
| Potassium |               |            |   |             |   |     |   |   |
| Selenium  |               |            |   |             |   |     |   |   |
| Silver    |               |            |   |             |   |     |   |   |
| Sodium    |               |            |   |             |   |     |   |   |
| Thallium  |               |            |   |             |   |     |   |   |
| Vanadium  |               |            |   |             |   |     |   |   |
| Zinc      |               |            |   |             |   |     |   |   |
| Cyanide   |               |            |   |             |   |     |   |   |

Comments:

## U.S. EPA - CLP

6  
DUPLICATES

EPA SAMPLE NO.

Lab Name: Princeton Testing Lab Contract: \_\_\_\_\_1511.2Lab Code: \_\_\_\_\_ Case No.: 9402817-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix (soil/water): WATER Level (low/med): \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_ % Solids for Duplicate: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight): ug/L

| Analyte   | Control Limit | Sample (S)  | C | Duplicate (D) | C | RPD        | Q | M        |
|-----------|---------------|-------------|---|---------------|---|------------|---|----------|
| Aluminum  |               |             |   |               |   |            |   |          |
| Antimony  |               |             |   |               |   |            |   |          |
| Arsenic   |               |             |   |               |   |            |   |          |
| Barium    |               |             |   |               |   |            |   |          |
| Beryllium |               |             |   |               |   |            |   |          |
| Cadmium   |               |             |   |               |   |            |   |          |
| Calcium   |               |             |   |               |   |            |   |          |
| Chromium  |               |             |   |               |   |            |   |          |
| Cobalt    |               |             |   |               |   |            |   |          |
| Copper    |               |             |   |               |   |            |   |          |
| Iron      |               |             |   |               |   |            |   |          |
| Lead      | <u>3ug/L</u>  | <u>4.74</u> |   | <u>2.17</u>   |   | <u>74%</u> |   | <u>F</u> |
| Magnesium |               |             |   |               |   |            |   |          |
| Manganese |               |             |   |               |   |            |   |          |
| Mercury   |               |             |   |               |   |            |   |          |
| Nickel    |               |             |   |               |   |            |   |          |
| Potassium |               |             |   |               |   |            |   |          |
| Selenium  |               |             |   |               |   |            |   |          |
| Silver    |               |             |   |               |   |            |   |          |
| Sodium    |               |             |   |               |   |            |   |          |
| Thallium  |               |             |   |               |   |            |   |          |
| Vanadium  |               |             |   |               |   |            |   |          |
| Zinc      |               |             |   |               |   |            |   |          |
| Cyanide   |               |             |   |               |   |            |   |          |

U.S. EPA - CLP

7  
LABORATORY CONTROL SAMPLE

Lab Name: Princeton Testing Lab Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ Case No.: 9402897-001 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Solid LCS Source: \_\_\_\_\_  
 Aqueous LCS Source: Baker LCS

(For soils)

| Analyte   | Aqueous (ug/L) |       |     | Solid (mg/kg) |       |   |        |    |
|-----------|----------------|-------|-----|---------------|-------|---|--------|----|
|           | True           | Found | %R  | True          | Found | C | Limits | %R |
| Aluminum  |                |       |     |               |       |   |        |    |
| Antimony  |                |       |     |               |       |   |        |    |
| Arsenic   |                |       |     |               |       |   |        |    |
| Barium    |                |       |     |               |       |   |        |    |
| Beryllium |                |       |     |               |       |   |        |    |
| Cadmium   |                |       |     |               |       |   |        |    |
| Calcium   |                |       |     |               |       |   |        |    |
| Chromium  |                |       |     |               |       |   |        |    |
| Cobalt    |                |       |     |               |       |   |        |    |
| Copper    |                |       |     |               |       |   |        |    |
| Iron      |                |       |     |               |       |   |        |    |
| Lead      | 40.0           | 38.0  | 95. |               |       |   |        |    |
| Magnesium |                |       |     |               |       |   |        |    |
| Manganese |                |       |     |               |       |   |        |    |
| Mercury   |                |       |     |               |       |   |        |    |
| Nickel    |                |       |     |               |       |   |        |    |
| Potassium |                |       |     |               |       |   |        |    |
| Selenium  |                |       |     |               |       |   |        |    |
| Silver    |                |       |     |               |       |   |        |    |
| Sodium    |                |       |     |               |       |   |        |    |
| Thallium  |                |       |     |               |       |   |        |    |
| Vanadium  |                |       |     |               |       |   |        |    |
| Zinc      |                |       |     |               |       |   |        |    |
| Cyanide   |                |       |     |               |       |   |        |    |



## U.S. EPA - CLP

7

## LABORATORY CONTROL SAMPLE

Lab Name: Princeton Testing Lab Contract: \_\_\_\_\_Lab Code: \_\_\_\_\_ Case No.: 940281700 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Solid LCS Source: \_\_\_\_\_

Aqueous LCS Source: Baker LCS

(FOR NATURAL)

| Analyte   | Aqueous (ug/L) |                      |    | Solid (mg/kg) |       |   |        |    |
|-----------|----------------|----------------------|----|---------------|-------|---|--------|----|
|           | True           | Found                | %R | True          | Found | C | Limits | %R |
| Aluminum  |                |                      |    |               |       |   |        |    |
| Antimony  |                |                      |    |               |       |   |        |    |
| Arsenic   |                |                      |    |               |       |   |        |    |
| Barium    |                |                      |    |               |       |   |        |    |
| Beryllium |                |                      |    |               |       |   |        |    |
| Cadmium   |                |                      |    |               |       |   |        |    |
| Calcium   |                |                      |    |               |       |   |        |    |
| Chromium  |                |                      |    |               |       |   |        |    |
| Cobalt    |                |                      |    |               |       |   |        |    |
| Copper    |                |                      |    |               |       |   |        |    |
| Iron      |                |                      |    |               |       |   |        |    |
| Lead      | 40.0           | <del>38.2</del> 38.2 | 96 |               |       |   |        |    |
| Magnesium |                |                      |    |               |       |   |        |    |
| Manganese |                |                      |    |               |       |   |        |    |
| Mercury   |                |                      |    |               |       |   |        |    |
| Nickel    |                |                      |    |               |       |   |        |    |
| Potassium |                |                      |    |               |       |   |        |    |
| Selenium  |                |                      |    |               |       |   |        |    |
| Silver    |                |                      |    |               |       |   |        |    |
| Sodium    |                |                      |    |               |       |   |        |    |
| Thallium  |                |                      |    |               |       |   |        |    |
| Vanadium  |                |                      |    |               |       |   |        |    |
| Zinc      |                |                      |    |               |       |   |        |    |
| Cyanide   |                |                      |    |               |       |   |        |    |

## U.S. EPA - CLP

10

## INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Panulton Testing Lab

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: 9402817-W

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

ICP ID Number: \_\_\_\_\_

Date: 5/15/94

Flame AA ID Number: \_\_\_\_\_

Furnace AA ID Number: AE 5700

| Analyte   | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L)  | M        |
|-----------|------------------|-------------|-------------|-------------|----------|
| Aluminum  |                  |             | 200         |             |          |
| Antimony  |                  |             | 60          |             |          |
| Arsenic   |                  |             | 10          |             |          |
| Barium    |                  |             | 200         |             |          |
| Beryllium |                  |             | 5           |             |          |
| Cadmium   |                  |             | 5           |             |          |
| Calcium   |                  |             | 5000        |             |          |
| Chromium  |                  |             | 10          |             |          |
| Cobalt    |                  |             | 50          |             |          |
| Copper    |                  |             | 25          |             |          |
| Iron      |                  |             | 100         |             |          |
| Lead      | <u>283.3</u>     | <u>BE</u>   | 3           | <u>0.51</u> | <u>F</u> |
| Magnesium |                  |             | 5000        |             |          |
| Manganese |                  |             | 15          |             |          |
| Mercury   |                  |             | 0.2         |             |          |
| Nickel    |                  |             | 40          |             |          |
| Potassium |                  |             | 5000        |             |          |
| Selenium  |                  |             | 5           |             |          |
| Silver    |                  |             | 10          |             |          |
| Sodium    |                  |             | 5000        |             |          |
| Thallium  |                  |             | 10          |             |          |
| Vanadium  |                  |             | 50          |             |          |
| Zinc      |                  |             | 20          |             |          |

Comments:

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## PREPARATION LOG

Contract: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Method: E

[illegible]

## U.S. EPA - CLP

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## ANALYSIS RUN LOG

Lab Name: Princeton Testing Lab

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: 9402817-001

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Instrument ID Number: PE5100Method: FStart Date: 6/2/94End Date: 6/3/94

| EPA<br>Sample<br>No. | D/F    | Time | t R  | Analytes |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|--------|------|------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                      |        |      |      | A        | S | A | B | B | C | C | C | C | F | P | M | M | H | N | K |
|                      |        |      |      | L        | B | S | A | E | D | A | R | O | U | E | B | G | N | G | I |
| 50                   | 1      | 2238 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 53                   | 1      | 2245 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 525                  | 1      | 2257 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 550                  | 1      | 2258 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 575                  | 1      | 2304 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 5100                 | 1      | 2210 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| TCV                  | 1      | 2318 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| ICB                  | 1      | 2324 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| ICBA                 | 1      | 2330 | 101  |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCV                  | 1      | 2337 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCB                  | 1      | 2343 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CBA                  | 1      | 2350 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| PBW                  | 1      | 2356 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| PAWA                 | 1      | 0003 | 103  |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| LCSW                 | 1      | 0009 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| LCSWA                | 1      | 0016 | 102  |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-001             | 1      | 0023 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-4A              | 1      | 0029 | 92.3 |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-4D              | 1      | 0036 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-4DA             | 1      | 0043 | 92.3 |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-4E              | 1      | 0049 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCV                  | 1      | 0056 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCB                  | 1      | 0103 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-1               | 1      | 0109 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-1A              | 1      | 0116 | 91.6 |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-2               | 1      | 0122 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-2A              | 1      | 0129 | 92.8 |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| PBW                  | 1      | 0135 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| PRINTER              | JAMMED |      |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCV                  | 1      | 0141 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| CCB                  | 1      | 0142 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-1               | 1      | 0154 |      |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| 2817-1A              | 1      | 0201 | 92.6 |          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |

Printer jammed before CCV

14

## ANALYSIS RUN LOG

Lab Name: Printer Testing Lab

Contract: \_\_\_\_\_

Lab Code:

Case No.: 9402817 vcl

**SAS No. :**

SDG No. :

Instrument ID Number: PE5100

Method: *E*

Start Date: 6/2/94

End Date: 6/3/94

[illegible]

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Element File: PB.GEL                      Element: Pb                      Wavelength: 283.3  
Date: 06/02/94                      Time: 22:35                      Slit: 0.70  
Data File:                      ID/WB File: P8020494.IDW                      Lamp Current: 10  
Technique: HGA                      Calib. Type: Nonlinear                      Energy: 31  
Remark 1: STND PREP DATE : 6/2/94  
Remark 2: STND PREP TIME : 5:30 PM  
Remark 3: PROJECTS : 2817  
-----

Pb    ID: Blank    **So**    Seq. No.: 00018    A/S Pos.: 0    Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 0  
Replicate 1                      Time: 22:38  
Peak Area (A-s): 0.007                      Peak Height (A): 0.009  
Background Pk Area (A-s): 0.110                      Background Pk Height (A): 0.041  
Blank Corrected Pk Area (A-s): -0.000  
Concentration (ug/L ): -0.03

uL dispensed: 4 from 0, 5 from 35, 20 from 0  
Replicate 2                      Time: 22:41  
Peak Area (A-s): 0.007                      Peak Height (A): 0.010  
Background Pk Area (A-s): 0.113                      Background Pk Height (A): 0.043  
Blank Corrected Pk Area (A-s): -0.000  
Concentration (ug/L ): -0.03

Mean Conc (ug/L ):                      -0.03                      SD: 0.001                      RSD(%): 0.87

Auto-zero performed.

Pb    ID: Standard 1    **S3**    Seq. No.: 00019    A/S Pos.: 10    Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 30  
Replicate 1                      Time: 22:45  
Peak Area (A-s): 0.029                      Peak Height (A): 0.050  
Background Pk Area (A-s): 0.121                      Background Pk Height (A): 0.044  
Blank Corrected Pk Area (A-s): 0.022  
Concentration (ug/L ): 3.03

uL dispensed: 4 from 0, 5 from 35, 20 from 30  
Replicate 2                      Time: 22:48  
Peak Area (A-s): 0.030                      Peak Height (A): 0.049  
Background Pk Area (A-s): 0.118                      Background Pk Height (A): 0.041  
Blank Corrected Pk Area (A-s): 0.023  
Concentration (ug/L ): 3.17

Mean Conc (ug/L ):                      3.10                      SD: 0.100                      RSD(%): 3.22

Standard Number 1 applied. 10.001

Concentration for this run: 1.00000

Slope: 1.0000

Ab ID: Standard 2 **S25** Seq. No.: 00020 A/S Pos.: 31 Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 31  
Replicate 1 Time: 22:51  
Peak Area (A-s): 0.188 Peak Height (A): 0.297  
Background Pk Area (A-s): 0.166 Background Pk Height (A): 0.093  
Blank Corrected Pk Area (A-s): 0.181  
Concentration (ug/L ): 23.72

uL dispensed: 4 from 0, 5 from 35, 20 from 31  
Replicate 2 Time: 22:54  
Peak Area (A-s): 0.190 Peak Height (A): 0.297  
Background Pk Area (A-s): 0.169 Background Pk Height (A): 0.094  
Blank Corrected Pk Area (A-s): 0.183  
Concentration (ug/L ): 23.97

Mean Conc (ug/L ): 23.84 SD: 0.176 RSD(%): 0.74

Standard number 2 applied. [25.00]  
Correlation coefficient: 1.00000 Slope: 0.0077

Ab ID: Standard 3 **S50** Seq. No.: 00021 A/S Pos.: 32 Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 32  
Replicate 1 Time: 22:58  
Peak Area (A-s): 0.344 Peak Height (A): 0.507  
Background Pk Area (A-s): 0.210 Background Pk Height (A): 0.161  
Blank Corrected Pk Area (A-s): 0.137  
Concentration (ug/L ): 48.88

uL dispensed: 4 from 0, 5 from 35, 20 from 32  
Replicate 2 Time: 23:01  
Peak Area (A-s): 0.341 Peak Height (A): 0.528  
Background Pk Area (A-s): 0.213 Background Pk Height (A): 0.168  
Blank Corrected Pk Area (A-s): 0.334  
Concentration (ug/L ): 48.11

Mean Conc (ug/L ): 48.38 SD: 0.389 RSD(%): 0.80

Standard number 3 applied. [50.00]  
Correlation coefficient: 1.00000 Slope: 0.0077

Ab ID: Standard 4 **S75** Seq. No.: 00022 A/S Pos.: 33 Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 33  
Replicate 1 Time: 23:04  
Peak Area (A-s): 0.485 Peak Height (A): 0.714  
Background Pk Area (A-s): 0.269 Background Pk Height (A): 0.245  
Blank Corrected Pk Area (A-s): 0.478  
Concentration (ug/L ): 83.38

uL dispensed: 4 from 0, 5 from 35, 20 from 33  
Replicate 2 Time: 23:07  
Peak Area (A-s): 0.478 Peak Height (A): 0.714  
Background Pk Area (A-s): 0.269 Background Pk Height (A): 0.245  
Blank Corrected Pk Area (A-s): 0.472  
Concentration (ug/L ): 83.37

Mean Conc (ug/L ): 93.48

SD: 0.134

RSD(%): 0.15 (3)

Standard number 4 applied. [75.00]

Correlation coefficient: 0.99992

Slope: 0.0077

~~~~~  
PB ID: Standard 5 **S100** Seq. No.: 00023 A/S Pos.: 34 Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 34

Replicate 1

Time: 23:10

Peak Area (A-s): 0.593

Peak Height (A): 0.830

Background Pk Area (A-s): 0.307

Background Pk Height (A): 0.301

Blank Corrected Pk Area (A-s): 0.591

Concentration (ug/L ): 99.43

uL dispensed: 4 from 0, 5 from 35, 20 from 34

Replicate 2

Time: 23:14

Peak Area (A-s): 0.592

Peak Height (A): 0.841

Background Pk Area (A-s): 0.308

Background Pk Height (A): 0.307

Blank Corrected Pk Area (A-s): 0.585

Concentration (ug/L ): 97.94

Mean Conc (ug/L ): 98.68

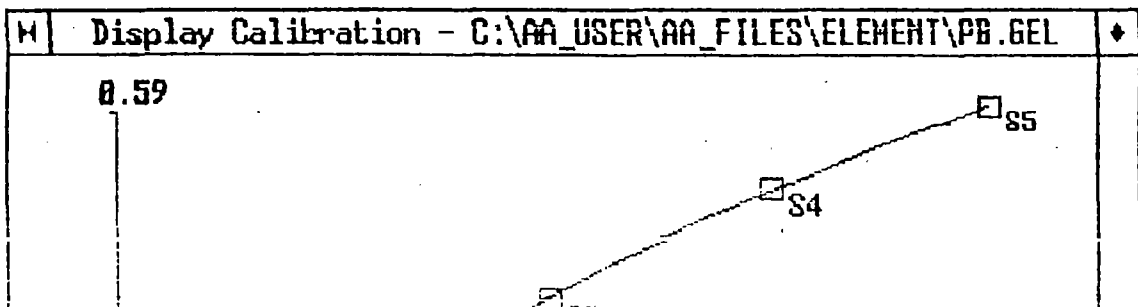
SD: 1.058

RSD(%): 1.07

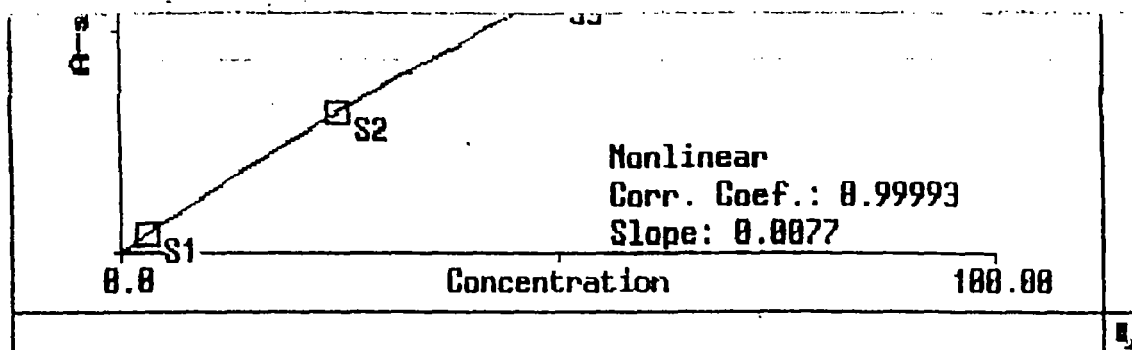
Standard number 5 applied. [100.00]

Correlation coefficient: 0.99993

Slope: 0.0077







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PB ID: ICV IV 15 PPB Seq. No.: 00024 A/S Pos.: 1 Date: 06/02/94

**ICV**

uL dispensed: 4 from 0, 5 from 35, 20 from 1  
Replicate 1 Time: 23:19  
Peak Area (A-s): 0.122 Peak Height (A): 0.187  
Background Pk Area (A-s): 0.148 Background Pk Height (A): 0.061  
Blank Corrected Pk Area (A-s): 0.115  
Concentration (ug/L): 15.49 Corrected Conc (ug/L): 15.49

uL dispensed: 4 from 0, 5 from 35, 20 from 1  
Replicate 2 Time: 23:21  
Peak Area (A-s): 0.120 Peak Height (A): 0.185  
Background Pk Area (A-s): 0.149 Background Pk Height (A): 0.062  
Blank Corrected Pk Area (A-s): 0.115  
Concentration (ug/L): 15.27 Corrected Conc (ug/L): 15.27

Mean Conc (ug/L): 15.38 SD: 0.157 RSD(%): 1.02  
Corrected Conc (ug/L): 15.38

~~~~~  
PB ID: ICB Seq. No.: 00025 A/S Pos.: 2 Date: 06/02/94

**ICB**

uL dispensed: 4 from 0, 5 from 35, 20 from 1  
Replicate 1 Time: 23:24  
Peak Area (A-s): 0.006 Peak Height (A): 0.008  
Background Pk Area (A-s): 0.123 Background Pk Height (A): 0.047  
Blank Corrected Pk Area (A-s): -0.001  
Concentration (ug/L): -0.07 Corrected Conc (ug/L): -0.07

uL dispensed: 4 from 0, 5 from 35, 20 from 2  
Replicate 2 Time: 23:27  
Peak Area (A-s): 0.005 Peak Height (A): 0.008

Background Pk Area (A-s): 0.124 Background Pk Height (A): 0.048  
Blank Corrected Pk Area (A-s): -0.002  
Concentration (ug/L): -0.25 Corrected Conc (ug/L): -0.25

Mean Conc (ug/L): -0.16 SD: 0.124 RSD(%): 78.57  
Corrected Conc (ug/L): -0.16

~~~~~  
PB ID: ICB **ICB A** Seq. No.: 00026 A/S Pos.: 1 Date: 06/02/94

uL dispensed: 5 from 35, 20 from 1  
Replicate 1 Time: 23:34  
Peak Area (A-s): 0.122 Peak Height (A): 0.187  
Background Pk Area (A-s): 0.148 Background Pk Height (A): 0.061  
Blank Corrected Pk Area (A-s): 0.115  
Concentration (ug/L): 15.49 Corrected Conc (ug/L): 15.49

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Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.069  
Blank Corrected Pk Area (A-s): 0.147  
Concentration (ug/L ): 20.04 Corrected Conc (ug/L ): 20.04

5

uL dispensed: 5 from 35, 4 from 34, 20 from 2  
Replicate 2 Time: 23:34  
Peak Area (A-s): 0.154 Peak Height (A): 0.227  
Background Pk Area (A-s): 0.130 Background Pk Height (A): 0.069  
Blank Corrected Pk Area (A-s): 0.147  
Concentration (ug/L ): 20.00 Corrected Conc (ug/L ): 20.00

Mean Conc (ug/L ): 20.02 SD: 0.026 RSD(%): 0.14  
Corrected Conc (ug/L ): 20.02

Recovery is 100.7%

Pb ID: CCV-SPX19 50PPB. Seq. No.: 00027 A/S Pos.: 3 Date: 06/02/94

CCV

uL dispensed: 4 from 0, 5 from 35, 20 from 3  
Replicate 1 Time: 23:37  
Peak Area (A-s): 0.361 Peak Height (A): 0.546  
Background Pk Area (A-s): 0.230 Background Pk Height (A): 0.169  
Blank Corrected Pk Area (A-s): 0.354  
Concentration (ug/L ): 52.53 Corrected Conc (ug/L ): 52.53

uL dispensed: 4 from 0, 5 from 35, 20 from 3  
Replicate 2 Time: 23:40  
Peak Area (A-s): 0.360 Peak Height (A): 0.536  
Background Pk Area (A-s): 0.227 Background Pk Height (A): 0.165  
Blank Corrected Pk Area (A-s): 0.353  
Concentration (ug/L ): 52.33 Corrected Conc (ug/L ): 52.33

Mean Conc (ug/L ): 52.43 SD: 0.145 RSD(%): 0.28  
Corrected Conc (ug/L ): 52.43

Pb ID: CCB Seq. No.: 00028 A/S Pos.: 4 Date: 06/02/94

CCB

uL dispensed: 4 from 0, 5 from 35, 20 from 4  
Replicate 1 Time: 23:43  
Peak Area (A-s): 0.005 Peak Height (A): 0.008  
Background Pk Area (A-s): 0.128 Background Pk Height (A): 0.048  
Blank Corrected Pk Area (A-s): -0.002  
Concentration (ug/L ): -0.23 Corrected Conc (ug/L ): -0.23

uL dispensed: 4 from 0, 5 from 35, 20 from 4  
Replicate 2 Time: 23:47  
Peak Area (A-s): 0.006 Peak Height (A): 0.007  
Background Pk Area (A-s): 0.126 Background Pk Height (A): 0.049  
Blank Corrected Pk Area (A-s): -0.001  
Concentration (ug/L ): -0.17 Corrected Conc (ug/L ): -0.17

Mean Conc (ug/L ): -0.20 SD: 0.039 RSD(%): 19.56  
Corrected Conc (ug/L ): -0.20

Pb ID: CCB-SPX19 50PPB. Seq. No.: 00029 A/S Pos.: 4 Date: 06/02/94

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uL dispensed: 4 from 0, 5 from 35, 20 from 5  
Replicate 1 Time: 23:50  
Peak Area (A-s): 0.028 Peak Height (A): 0.045  
Background Pk Area (A-s): 0.135 Background Pk Height (A): 0.050  
Blank Corrected Pk Area (A-s): 0.021  
Concentration (ug/L ): 2.73 Corrected Conc (ug/L ): 2.73

uL dispensed: 4 from 0, 5 from 35, 20 from 5  
Replicate 2 Time: 23:53  
Peak Area (A-s): 0.028 Peak Height (A): 0.043  
Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.047  
Blank Corrected Pk Area (A-s): 0.021  
Concentration (ug/L ): 2.78 Corrected Conc (ug/L ): 2.78

Mean Conc (ug/L ): 2.76 SD: 0.038 RSD(%): 1.38  
Corrected Conc (ug/L ): 2.76

Pb ID: PREP BL 0206948 Seq. No.: 00030 A/S Pos.: 5 Date: 06/02/94

uL dispensed: 4 from 0, 5 from 35, 20 from 5  
Replicate 1 Time: 23:56  
Peak Area (A-s): 0.015 Peak Height (A): 0.025  
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.048  
Blank Corrected Pk Area (A-s): 0.008  
Concentration (ug/L ): 1.08 Corrected Conc (ug/L ): 108.

uL dispensed: 4 from 0, 5 from 35, 20 from 5  
Replicate 2 Time: 00:00  
Peak Area (A-s): 0.017 Peak Height (A): 0.026  
Background Pk Area (A-s): 0.136 Background Pk Height (A): 0.049  
Blank Corrected Pk Area (A-s): 0.010  
Concentration (ug/L ): 1.26 Corrected Conc (ug/L ): 126.

Mean Conc (ug/L ): 1.17 SD: 0.125 RSD(%): 10.69  
Corrected Conc (ug/L ): 117.

Pb ID: PREP BL 0206948 Seq. No.: 00031 A/S Pos.: 6 Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 6  
Replicate 1 Time: 00:03  
Peak Area (A-s): 0.164 Peak Height (A): 0.251  
Background Pk Area (A-s): 0.130 Background Pk Height (A): 0.075  
Blank Corrected Pk Area (A-s): 0.157  
Concentration (ug/L ): 21.55 Corrected Conc (ug/L ): 2155.

uL dispensed: 5 from 35, 4 from 34, 20 from 6  
Replicate 2 Time: 00:06  
Peak Area (A-s): 0.166 Peak Height (A): 0.247  
Background Pk Area (A-s): 0.131 Background Pk Height (A): 0.075  
Blank Corrected Pk Area (A-s): 0.159  
Concentration (ug/L ): 21.83 Corrected Conc (ug/L ): 2183.

Mean Conc (ug/L ): 21.69 SD: 0.200 RSD(%): 0.92  
Corrected Conc (ug/L ): 2169.

Recovery is 102.5%

Pb ID: **LCSW 020694 S** Seq. No.: 00032 A/S Pos.: 7 Date: 06/03/94

UL dispensed: 4 from 0, 5 from 35, 20 from 7  
Replicate 1 Time: 00:09  
Peak Area (A-s): 0.276 Peak Height (A): 0.430  
Background Pk Area (A-s): 0.202 Background Pk Height (A): 0.131  
Blank Corrected Pk Area (A-s): 0.259  
Concentration (ug/L ): 38.40 Corrected Conc (ug/L ): 3840.

UL dispensed: 4 from 0, 5 from 35, 20 from 7  
Replicate 2 Time: 00:13  
Peak Area (A-s): 0.271 Peak Height (A): 0.426  
Background Pk Area (A-s): 0.173 Background Pk Height (A): 0.129  
Blank Corrected Pk Area (A-s): 0.264  
Concentration (ug/L ): 37.70 Corrected Conc (ug/L ): 3770.

Mean Conc (ug/L ): 38.05 SD: 0.498 RSD(%): 1.31  
Corrected Conc (ug/L ): 3805.

Pb ID: **LCSWA 020694 S** Seq. No.: 00033 A/S Pos.: 7 Date: 06/03/94

UL dispensed: 5 from 35, 4 from 34, 20 from 7  
Replicate 1 Time: 00:18  
Peak Area (A-s): 0.399 Peak Height (A): 0.580  
Background Pk Area (A-s): 0.204 Background Pk Height (A): 0.182  
Blank Corrected Pk Area (A-s): 0.392  
Concentration (ug/L ): 59.35 Corrected Conc (ug/L ): 5935.

UL dispensed: 5 from 35, 4 from 34, 20 from 7  
Replicate 2 Time: 00:19  
Peak Area (A-s): 0.389 Peak Height (A): 0.574  
Background Pk Area (A-s): 0.203 Background Pk Height (A): 0.178  
Blank Corrected Pk Area (A-s): 0.382  
Concentration (ug/L ): 57.44 Corrected Conc (ug/L ): 5744.

Mean Conc (ug/L ): 58.40 SD: 1.352 RSD(%): 2.31  
Corrected Conc (ug/L ): 5840.

Recovery is 101.7%

Pb ID: **Sample 2817 04 ISN.1** Seq. No.: 00034 A/S Pos.: 8 Date: 06/03/94

UL dispensed: 4 from 0, 5 from 35, 20 from 8  
Replicate 1 Time: 00:23

Peak Area (A-s): 0.144 Peak Height (A): 0.215  
Background Pk Area (A-s): 1.043 Background Pk Height (A): 0.290  
Blank Corrected Pk Area (A-s): 0.157  
Concentration (ug/L ): 18.67 Corrected Conc (ug/L ): 1867.

UL dispensed: 4 from 0, 5 from 35, 20 from 8  
Replicate 2 Time: 00:26  
Peak Area (A-s): 0.142 Peak Height (A): 0.212  
Background Pk Area (A-s): 1.026 Background Pk Height (A): 0.286  
Blank Corrected Pk Area (A-s): 0.155  
Concentration (ug/L ): 18.60 Corrected Conc (ug/L ): 1860.

121

Corrected Conc (ug/L ): 1848.

Fb ID: 2817 04 **1151.1 A** Seq. No.: 00035 A/S Pos.: 8 Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 8

Replicate 1

Time: 00:29

Peak Area (A-s): 0.256

Peak Height (A): 0.379

Background Pk Area (A-s): 0.973

Background Pk Height (A): 0.272

Blank Corrected Pk Area (A-s): 0.259

Concentration (ug/L ): 36.87

Corrected Conc (ug/L ): 3687.

uL dispensed: 5 from 35, 4 from 34, 20 from 8

Replicate 2

Time: 00:33

Peak Area (A-s): 0.267

Peak Height (A): 0.378

Background Pk Area (A-s): 1.007

Background Pk Height (A): 0.277

Blank Corrected Pk Area (A-s): 0.250

Concentration (ug/L ): 37.03

Corrected Conc (ug/L ): 3703.

Mean Conc (ug/L ): 36.95

SD: 0.111

RSD(%): 0.30

Corrected Conc (ug/L ): 3695.

Recovery is 92.3%

Fb ID: 2817 04 DUP **1151.1 D** Seq. No.: 00036 A/S Pos.: 9 Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 9

Replicate 1

Time: 00:40

Peak Area (A-s): 0.149

Peak Height (A): 0.233

Background Pk Area (A-s): 1.013

Background Pk Height (A): 0.284

Blank Corrected Pk Area (A-s): 0.142

Concentration (ug/L ): 19.29

Corrected Conc (ug/L ): 1929.

uL dispensed: 4 from 0, 5 from 35, 20 from 9

Replicate 2

Time: 00:39

Peak Area (A-s): 0.149

Peak Height (A): 0.223

Background Pk Area (A-s): 1.005

Background Pk Height (A): 0.282

Blank Corrected Pk Area (A-s): 0.142

Concentration (ug/L ): 19.32

Corrected Conc (ug/L ): 1932.

Mean Conc (ug/L ): 19.30

SD: 0.020

RSD(%): 0.11

Corrected Conc (ug/L ): 1930.

Fb ID: 2817 04 DUP **1151.1 D A** Seq. No.: 00037 A/S Pos.: 9 Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 9

Replicate 1

Time: 00:43

Peak Area (A-s): 0.272

Peak Height (A): 0.371

Background Pk Area (A-s): 0.982

Background Pk Height (A): 0.279

Blank Corrected Pk Area (A-s): 0.265

Concentration (ug/L ): 37.86

Corrected Conc (ug/L ): 3786.

uL dispensed: 5 from 35, 4 from 34, 20 from 9

Replicate 2

Time: 00:46

Peak Area (A-s): 0.272

Peak Height (A): 0.371

Background Pk Area (A-s): 0.982

Background Pk Height (A): 0.279

Blank Corrected Pk Area (A-s): 0.265

Concentration (ug/L ): 37.89

Corrected Conc (ug/L ): 3789.

121A

Mean Conc (ug/L ): 37.88 SD: 0.019 RSD(%): 0.05 ⑨  
Corrected Conc (ug/L ): 3788.

Recovery is 92.9%

Pb ID: 2817 04 MS Seq. No.: 00038 A/S Pos.: 10 Date: 06/03/94

1151.1 S  
uL dispensed: 4 from 0, 5 from 35, 20 from 10  
Replicate 1 Time: 00:19.  
Peak Area (A-s): 0.352 Peak Height (A): 0.343  
Background Pk Area (A-s): 0.249 Background Pk Height (A): 0.168  
Blank Corrected Pk Area (A-s): 0.345  
Concentration (ug/L ): 50.97 Corrected Conc (ug/L ): 5097.

uL dispensed: 4 from 0, 5 from 35, 20 from 10  
Replicate 2 Time: 00:53  
Peak Area (A-s): 0.331 Peak Height (A): 0.343  
Background Pk Area (A-s): 0.240 Background Pk Height (A): 0.171  
Blank Corrected Pk Area (A-s): 0.344  
Concentration (ug/L ): 50.78 Corrected Conc (ug/L ): 5078.

Mean Conc (ug/L ): 50.87 SD: 0.105 RSD(%): 0.21  
Corrected Conc (ug/L ): 5087.

Pb ID: 08V CCV Seq. No.: 00039 A/S Pos.: 11 Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 11  
Replicate 1 Time: 00:56  
Peak Area (A-s): 0.304 Peak Height (A): 0.335  
Background Pk Area (A-s): 0.244 Background Pk Height (A): 0.172  
Blank Corrected Pk Area (A-s): 0.337  
Concentration (ug/L ): 53.08 Corrected Conc (ug/L ): 53.08

uL dispensed: 4 from 0, 5 from 35, 20 from 11  
Replicate 2 Time: 00:59  
Peak Area (A-s): 0.334 Peak Height (A): 0.350  
Background Pk Area (A-s): 0.237 Background Pk Height (A): 0.168  
Blank Corrected Pk Area (A-s): 0.357  
Concentration (ug/L ): 53.07 Corrected Conc (ug/L ): 53.07

Mean Conc (ug/L ): 53.07 SD: 0.008 RSD(%): 0.01  
Corrected Conc (ug/L ): 53.07

Pb ID: 005 CC8 Seq. No.: 00040 A/S Pos.: 12 Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 12  
Replicate 1 Time: 01:03  
Peak Area (A-s): 0.003 Peak Height (A): 0.005  
Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.049  
Blank Corrected Pk Area (A-s): -0.004  
Concentration (ug/L ): -0.54 Corrected Conc (ug/L ): -0.54

uL dispensed: 4 from 0, 5 from 35, 20 from 12  
Replicate 2 Time: 01:04  
Peak Area (A-s): 0.003 Peak Height (A): 0.005

Background Pk Area (A-s): 0.135  
Blank Corrected Pk Area (A-s): -0.003  
Concentration (ug/L ): -0.38

Background Pk Height (A): 0.053  
Corrected Conc (ug/L ): -0.38

Mean Conc (ug/L ): -0.46

SD: 0.115

RSD(%): 25.05

Corrected Conc (ug/L ): -0.46

Pb ID: 2817 01

Seq. No.: 00041

A/S Pos.: 13

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 13

Replicate 1

Time: 01:09

Peak Area (A-s): 0.179

Peak Height (A): 0.275

Background Pk Area (A-s): 0.733

Background Pk Height (A): 0.224

Blank Corrected Pk Area (A-s): 0.172

Concentration (ug/L ): 23.71

Corrected Conc (ug/L ): 2371.

uL dispensed: 4 from 0, 5 from 35, 20 from 13

Replicate 2

Time: 01:13

Peak Area (A-s): 0.175

Peak Height (A): 0.268

Background Pk Area (A-s): 0.739

Background Pk Height (A): 0.225

Blank Corrected Pk Area (A-s): 0.171

Concentration (ug/L ): 23.54

Corrected Conc (ug/L ): 2354.

Mean Conc (ug/L ): 23.62

SD: 0.123

RSD(%): 0.52

Corrected Conc (ug/L ): 2362.

Pb ID: 2817 01

Seq. No.: 00042

A/S Pos.: 13

Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 13

Replicate 1

Time: 01:16

Peak Area (A-s): 0.300

Peak Height (A): 0.445

Background Pk Area (A-s): 0.727

Background Pk Height (A): 0.215

Blank Corrected Pk Area (A-s): 0.293

Concentration (ug/L ): 42.25

Corrected Conc (ug/L ): 4225.

uL dispensed: 5 from 35, 4 from 34, 20 from 13

Replicate 2

Time: 01:19

Peak Area (A-s): 0.290

Peak Height (A): 0.444

Background Pk Area (A-s): 0.730

Background Pk Height (A): 0.216

Blank Corrected Pk Area (A-s): 0.289

Concentration (ug/L ): 41.64

Corrected Conc (ug/L ): 4164.

Mean Conc (ug/L ): 41.94

SD: 0.425

RSD(%): 1.01

Corrected Conc (ug/L ): 4194.

Recovery is 91.6%

Pb ID: 2817 02

Seq. No.: 00043

A/S Pos.: 14

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 14

Replicate 1

Time: 01:22

Peak Area (A-s): 0.182

Peak Height (A): 0.276

Background Pk Area (A-s): 0.919

Background Pk Height (A): 0.245

Blank Corrected Pk Area (A-s): 0.173

Concentration (ug/L ): 24.15

Corrected Conc (ug/L ): 2415.

uL dispensed: 4 from 0, 5 from 35, 20 from 14

Replicate 2

Time: 01:25

Peak Area (A-s): 0.182

Peak Height (A): 0.276

Background Pk Area (A-s): 0.919

Background Pk Height (A): 0.245

Blank Corrected Pk Area (A-s): 0.173

Concentration (ug/L ): 24.15

Corrected Conc (ug/L ): 2415.

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Replicate 2  
Peak Area (A-s): 0.182  
Background Pk Area (A-s): 0.820  
Blank Corrected Pk Area (A-s): 0.175  
Concentration (ug/L ): 24.12

Time: 01:26  
Peak Height (A): 0.277  
Background Pk Height (A): 0.245  
Corrected Conc (ug/L ): 2412.

Mean Conc (ug/L ): 24.13  
Corrected Conc (ug/L ): 2413.

SD: 0.021 RSD(%): 0.09

Pb ID: 2817 02

Seq. No.: 00044

A/S Pos.: 14

Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 14

Replicate 1  
Peak Area (A-s): 0.303  
Background Pk Area (A-s): 0.791  
Blank Corrected Pk Area (A-s): 0.296  
Concentration (ug/L ): 42.74

Time: 01:29  
Peak Height (A): 0.439  
Background Pk Height (A): 0.231  
Corrected Conc (ug/L ): 4274.

uL dispensed: 5 from 35, 4 from 34, 20 from 14

Replicate 2  
Peak Area (A-s): 0.302  
Background Pk Area (A-s): 0.805  
Blank Corrected Pk Area (A-s): 0.295  
Concentration (ug/L ): 42.66

Time: 01:32  
Peak Height (A): 0.437  
Background Pk Height (A): 0.236  
Corrected Conc (ug/L ): 4266.

Mean Conc (ug/L ): 42.70  
Corrected Conc (ug/L ): 4270.

SD: 0.058 RSD(%): 0.14

Recovery is 92.8%

Pb ID: PREP BLO20694A0

Seq. No.: 00045

A/S Pos.: 15

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 1  
Peak Area (A-s): 0.008  
Background Pk Area (A-s): 0.138  
Blank Corrected Pk Area (A-s): 0.001  
Concentration (ug/L ): 0.18

Time: 01:35  
Peak Height (A): 0.011  
Background Pk Height (A): 0.054  
Corrected Conc (ug/L ): 0.18

uL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 2  
Peak Area (A-s): 0.007  
Background Pk Area (A-s): 0.152  
Blank Corrected Pk Area (A-s): 0.000

Time: 01:39  
Peak Height (A): 0.011  
Background Pk Height (A): 0.057

Concentration (ug/L ): 0.04

Corrected Conc (ug/L ): 0.04

Mean Conc (ug/L ): 0.11  
Corrected Conc (ug/L ): 0.11

SD: 0.100 RSD(%): 93.33

06/03/94

← printer jam

124



②

Pb ID: CCV

Seq. No.: 00048

A/S Pos.: 11

Date: 05/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 11

CCV  
RK

CCV

Replicate 1  
Peak Area (A-s): 0.343  
Background Pk Area (A-s): 0.224  
Blank Corrected Pk Area (A-s): 0.336  
Concentration (ug/L ): 49.45

Time: 08:41  
Peak Height (A): 0.523  
Background Pk Height (A): 0.174  
Corrected Conc (ug/L ): 49.45

uL dispensed: 4 from 0, 5 from 35, 20 from 11

Replicate 2  
Peak Area (A-s): 0.350  
Background Pk Area (A-s): 0.238  
Blank Corrected Pk Area (A-s): 0.343  
Concentration (ug/L ): 50.72

Time: 08:44  
Peak Height (A): 0.517  
Background Pk Height (A): 0.172  
Corrected Conc (ug/L ): 50.72

Mean Conc (ug/L ): 50.08  
Corrected Conc (ug/L ): 50.08

SD: 0.596 RSD(%): 1.79

Pb ID: CCB Seq. No.: 00049 A/S Pos.: 12 Date: 05/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 12

Replicate 1  
Peak Area (A-s): 0.003  
Background Pk Area (A-s): 0.125  
Blank Corrected Pk Area (A-s): -0.004  
Concentration (ug/L ): -0.48

Time: 08:47  
Peak Height (A): 0.006  
Background Pk Height (A): 0.048  
Corrected Conc (ug/L ): -0.48

uL dispensed: 4 from 0, 5 from 35, 20 from 12

Replicate 2  
Peak Area (A-s): 0.005  
Background Pk Area (A-s): 0.130  
Blank Corrected Pk Area (A-s): -0.002  
Concentration (ug/L ): -0.28

Time: 08:51  
Peak Height (A): 0.007  
Background Pk Height (A): 0.049  
Corrected Conc (ug/L ): -0.28

Mean Conc (ug/L ): -0.38  
Corrected Conc (ug/L ): -0.38

SD: 0.143 RSD(%): 37.31

Pb ID: 15b.1 Seq. No.: 00050 A/S Pos.: 13 Date: 05/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 13

Replicate 1 Time: 08:54

Peak Area (A-s): 0.170 Peak Height (A): 0.262  
Background Pk Area (A-s): 0.685 Background Pk Height (A): 0.207  
Blank Corrected Pk Area (A-s): 0.163  
Concentration (ug/L ): 22.36 Corrected Conc (ug/L ): 2236.

uL dispensed: 4 from 0, 5 from 35, 20 from 13  
Replicate 2 Time: 02:53  
Peak Area (A-s): 0.158 Peak Height (A): 0.256  
Background Pk Area (A-s): 0.700 Background Pk Height (A): 0.210  
Blank Corrected Pk Area (A-s): 0.161  
Concentration (ug/L ): 22.12 Corrected Conc (ug/L ): 2212.

Mean Conc (ug/L ): 22.24 SD: 0.170 RSD(%): 0.77  
Corrected Conc (ug/L ): 2224.

Pb ID: 2817 01 **1510.1 A** Seq. No.: 00051 A/S Pos.: 13 Date: 05/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 13  
Replicate 1 Time: 09:01  
Peak Area (A-s): 0.288 Peak Height (A): 0.417  
Background Pk Area (A-s): 0.675 Background Pk Height (A): 0.200  
Blank Corrected Pk Area (A-s): 0.281  
Concentration (ug/L ): 40.33 Corrected Conc (ug/L ): 4033.

uL dispensed: 5 from 35, 4 from 34, 20 from 13  
Replicate 2 Time: 09:04  
Peak Area (A-s): 0.293 Peak Height (A): 0.425  
Background Pk Area (A-s): 0.704 Background Pk Height (A): 0.205  
Blank Corrected Pk Area (A-s): 0.286  
Concentration (ug/L ): 41.18 Corrected Conc (ug/L ): 4118.

Mean Conc (ug/L ): 40.76 SD: 0.599 RSD(%): 1.47  
Corrected Conc (ug/L ): 4076.

Recovery is 92.6%

Pb ID: 2817 02 **1510.2** Seq. No.: 00052 A/S Pos.: 14 Date: 05/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 14  
Replicate 1 Time: 09:07  
Peak Area (A-s): 0.175 Peak Height (A): 0.264  
Background Pk Area (A-s): 0.767 Background Pk Height (A): 0.220  
Blank Corrected Pk Area (A-s): 0.110  
Concentration (ug/L ): 22.36 Corrected Conc (ug/L ): 2236.

UL dispensed: 4 from 0, 5 from 35, 20 from 14

Replicate 2

Peak Area (A-s): 0.175

Background Pk Area (A-s): 0.758

Blank Corrected Pk Area (A-s): 0.168

Concentration (ug/L ): 23.11

Time: 09:11

Peak Height (A): 0.268

Background Pk Height (A): 0.224

Corrected Conc (ug/L ): 2311.

Mean Conc (ug/L ): 23.07

SD: 0.082

RSD(%): 0.23

Corrected Conc (ug/L ): 2307.

PB ID: 2817 02

Seq. No.: 00053

A/S Pos.: 14

Date: 06/03/94

**1510.2 A**

UL dispensed: 5 from 35, 4 from 34, 20 from 14

Replicate 1

Peak Area (A-s): 0.295

Background Pk Area (A-s): 0.735

Blank Corrected Pk Area (A-s): 0.288

Concentration (ug/L ): 41.57

Time: 09:14

Peak Height (A): 0.438

Background Pk Height (A): 0.218

Corrected Conc (ug/L ): 4157.

UL dispensed: 5 from 35, 4 from 34, 20 from 14

Replicate 2

Peak Area (A-s): 0.295

Background Pk Area (A-s): 0.787

Blank Corrected Pk Area (A-s): 0.288

Concentration (ug/L ): 41.47

Time: 09:17

Peak Height (A): 0.426

Background Pk Height (A): 0.225

Corrected Conc (ug/L ): 4147.

Mean Conc (ug/L ): 41.52

SD: 0.075

RSD(X): 0.18

Corrected Conc (ug/L ): 4152.

Recovery is 92.2%

PB ID: PREP BLO20694A

Seq. No.: 00054

A/S Pos.: 15

Date: 06/03/94

**PBW (For Aqueous)**

UL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 1

Peak Area (A-s): 0.007

Background Pk Area (A-s): 0.162

Blank Corrected Pk Area (A-s): -0.000

Concentration (ug/L ): -0.03

Time: 09:21

Peak Height (A): 0.010

Background Pk Height (A): 0.030

Corrected Conc (ug/L ): -0.03

UL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 2

Peak Area (A-s): 0.008

Background Pk Area (A-s): 0.143

Blank Corrected Pk Area (A-s): 0.000

Concentration (ug/L ): 0.06

Time: 09:24

Peak Height (A): 0.011

Background Pk Height (A): 0.052

Corrected Conc (ug/L ): 0.05

Mean Conc (ug/L ): 0.01

SD: 0.008

RSD(X): 474.75

Corrected Conc (ug/L ): 0.01

PB ID: PREP BLO20694A

Seq. No.: 00055

A/S Pos.: 15

Date: 06/03/94

**PBW A**

UL dispensed: 5 from 35, 4 from 34, 20 from 15

Replicate 1

Peak Area (A-s): 0.182

Background Pk Area (A-s): 0.124

Blank Corrected Pk Area (A-s): 0.124

Time: 09:27

Peak Height (A): 0.111

Background Pk Height (A): 0.019

128

Concentration (ug/L ): 19.81

Corrected Conc (ug/L ): 19.81

uL dispensed: 5 from 35, 4 from 34, 20 from 15

Replicate 2

Peak Area (A-s): 0.156

Background Pk Area (A-s): 0.144

Blank Corrected Pk Area (A-s): 0.149

Concentration (ug/L ): 20.30

Time: 09:30

Peak Height (A): 0.242

Background Pk Height (A): 0.080

Corrected Conc (ug/L ): 20.30

Mean Conc (ug/L ): 20.06

SD: 0.342

RSD(%): 1.70

Corrected Conc (ug/L ): 20.06

Recovery is 100.2%

Pb ID: LCS 020694 AQ

Seq. No.: 00056

A/S Pos.: 16

Date: 06/03/94

**LCSW**

uL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 1

Peak Area (A-s): 0.273

Background Pk Area (A-s): 0.222

Blank Corrected Pk Area (A-s): 0.235

Concentration (ug/L ): 37.99

Time: 09:34

Peak Height (A): 0.435

Background Pk Height (A): 0.144

Corrected Conc (ug/L ): 37.99

uL dispensed: 4 from 0, 5 from 35, 20 from 15

Replicate 2

Peak Area (A-s): 0.276

Background Pk Area (A-s): 0.214

Blank Corrected Pk Area (A-s): 0.269

Concentration (ug/L ): 38.44

Time: 09:37

Peak Height (A): 0.428

Background Pk Height (A): 0.140

Corrected Conc (ug/L ): 38.44

Mean Conc (ug/L ): 38.22

SD: 0.319

RSD(%): 0.83

Corrected Conc (ug/L ): 38.22

Pb ID: LCS 020694 AQ

Seq. No.: 00057

A/S Pos.: 16

Date: 06/03/94

**LCSW A**

uL dispensed: 5 from 35, 4 from 34, 20 from 15

Replicate 1

Peak Area (A-s): 0.403

Background Pk Area (A-s): 0.217

Blank Corrected Pk Area (A-s): 0.396

Concentration (ug/L ): 60.05

Time: 09:40

Peak Height (A): 0.610

Background Pk Height (A): 0.207

Corrected Conc (ug/L ): 60.05

uL dispensed: 5 from 35, 4 from 34, 20 from 15

Replicate 2

Peak Area (A-s): 0.397

Background Pk Area (A-s): 0.215

Blank Corrected Pk Area (A-s): 0.390

Concentration (ug/L ): 58.94

Time: 09:43

Peak Height (A): 0.596

Background Pk Height (A): 0.201

Corrected Conc (ug/L ): 58.94

Mean Conc (ug/L ): 59.50

SD: 0.789

RSD(%): 1.33

Corrected Conc (ug/L ): 59.50

Recovery is 105.4%

Pb

ID: **CCV**

Seq. No.: 00058

A/S Pos.: 16

Date: 06/03/94

129

uL dispensed: 4 from 0, 5 from 35, 20 from 17  
Replicate 1 Time: 09:46  
Peak Area (A-s): 0.350 Peak Height (A): 0.513  
Background Pk Area (A-s): 0.239 Background Pk Height (A): 0.172  
Blank Corrected Pk Area (A-s): 0.343  
Concentration (ug/L ): 50.68 Corrected Conc (ug/L ): 50.68

uL dispensed: 4 from 0, 5 from 35, 20 from 17  
Replicate 2 Time: 09:50  
Peak Area (A-s): 0.347 Peak Height (A): 0.512  
Background Pk Area (A-s): 0.245 Background Pk Height (A): 0.172  
Blank Corrected Pk Area (A-s): 0.340

Concentration (ug/L ): 50.09 Corrected Conc (ug/L ): 50.09  
Mean Conc (ug/L ): 50.39 SD: 0.418 RSD(%): 0.83  
Corrected Conc (ug/L ): 50.39

Pb ID: CCB Seq. No.: 00057 A/S Pos.: 13 Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 18  
Replicate 1 Time: 09:53  
Peak Area (A-s): 0.003 Peak Height (A): 0.005  
Background Pk Area (A-s): 0.133 Background Pk Height (A): 0.050  
Blank Corrected Pk Area (A-s): -0.004  
Concentration (ug/L ): -0.54 Corrected Conc (ug/L ): -0.54

uL dispensed: 4 from 0, 5 from 35, 20 from 18  
Replicate 2 Time: 09:56  
Peak Area (A-s): 0.004 Peak Height (A): 0.005  
Background Pk Area (A-s): 0.132 Background Pk Height (A): 0.052  
Blank Corrected Pk Area (A-s): -0.003  
Concentration (ug/L ): -0.42 Corrected Conc (ug/L ): -0.42

Mean Conc (ug/L ): -0.48 SD: 0.084 RSD(%): 17.48  
Corrected Conc (ug/L ): -0.48

Pb ID: 2817-03 Seq. No.: 00060 A/S Pos.: 19 Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 19

Replicate 1 Time: 09:57  
Peak Area (A-s): 0.041 Peak Height (A): 0.071  
Background Pk Area (A-s): 0.145 Background Pk Height (A): 0.050  
Blank Corrected Pk Area (A-s): 0.038  
Concentration (ug/L ): 4.47 Corrected Conc (ug/L ): 4.47

Replicate 2  
Peak Area (A-s): 0.045  
Background Pk Area (A-s): 0.152  
Blank Corrected Pk Area (A-s): 0.038  
Concentration (ug/L ): 4.99

Time: 10:02  
Peak Height (A): 0.072  
Background Pk Height (A): 0.053  
Corrected Conc (ug/L ): 4.99

Mean Conc (ug/L ): 4.74  
Corrected Conc (ug/L ): 4.74

SD: 0.357 RSD(%): 7.53

Pb ID: 2817 03

**15H.2 A**

Seq. No.: 00061

A/S Pos.: 19

Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 19  
Replicate 1  
Peak Area (A-s): 0.192  
Background Pk Area (A-s): 0.157  
Blank Corrected Pk Area (A-s): 0.185  
Concentration (ug/L ): 25.56

Time: 10:06  
Peak Height (A): 0.297  
Background Pk Height (A): 0.097  
Corrected Conc (ug/L ): 25.56

uL dispensed: 5 from 35, 4 from 34, 20 from 19  
Replicate 2  
Peak Area (A-s): 0.193  
Background Pk Area (A-s): 0.147

Time: 10:09  
Peak Height (A): 0.293  
Background Pk Height (A): 0.095

Blank Corrected Pk Area (A-s): 0.186  
Concentration (ug/L ): 25.78

Corrected Conc (ug/L ): 25.78

Mean Conc (ug/L ): 25.67  
Corrected Conc (ug/L ): 25.67

SD: 0.157 RSD(%): 0.61

Recovery is 104.7%

Pb ID: 2817 03 DUP

**15H.2 B**

Seq. No.: 00062

A/S Pos.: 20

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 20  
Replicate 1  
Peak Area (A-s): 0.025  
Background Pk Area (A-s): 0.138  
Blank Corrected Pk Area (A-s): 0.018  
Concentration (ug/L ): 2.30

Time: 10:12  
Peak Height (A): 0.039  
Background Pk Height (A): 0.049  
Corrected Conc (ug/L ): 2.30

uL dispensed: 4 from 0, 5 from 35, 20 from 20  
Replicate 2  
Peak Area (A-s): 0.023  
Background Pk Area (A-s): 0.139  
Blank Corrected Pk Area (A-s): 0.016  
Concentration (ug/L ): 2.05

Time: 10:15  
Peak Height (A): 0.039  
Background Pk Height (A): 0.050  
Corrected Conc (ug/L ): 2.05

Mean Conc (ug/L ): 2.17  
Corrected Conc (ug/L ): 2.17

SD: 0.180 RSD(%): 8.30

Pb ID: 2817 03 DUP

**15H.2 B-A**

Seq. No.: 00063

A/S Pos.: 20

Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 20  
Replicate 1  
Peak Area (A-s): 0.111  
Background Pk Area (A-s): 0.110

Time: 10:16  
Peak Height (A): 0.085  
Background Pk Height (A): 0.085

Concentration (ug/L ): 22.73

Corrected Conc (ug/L ): 22.73

uL dispensed: 5 from 35, 4 from 34, 20 from 20

Replicate 2

Time: 10:22

Peak Area (A-s): 0.177

Peak Height (A): 0.266

Background Pk Area (A-s): 0.148

Background Pk Height (A): 0.086

Blank Corrected Pk Area (A-s): 0.170

Concentration (ug/L ): 23.32

Corrected Conc (ug/L ): 23.32

Mean Conc (ug/L ): 23.03

SD: 0.416

RSD(%): 1.81

Corrected Conc (ug/L ): 23.03

Recovery is 104.3%

Pb ID: 2817 03 MS

Seq. No.: 00064

A/S Pos.: 21

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 21

Replicate 1

Time: 10:25

Peak Area (A-s): 0.515

Peak Height (A): 0.694

Background Pk Area (A-s): 0.299

Background Pk Height (A): 0.251

Blank Corrected Pk Area (A-s): 0.508

Concentration (ug/L ): 81.84

Corrected Conc (ug/L ): 81.84

uL dispensed: 4 from 0, 5 from 35, 20 from 21

Replicate 2

Time: 10:28

Peak Area (A-s): 0.516

Peak Height (A): 0.752

Background Pk Area (A-s): 0.290

Background Pk Height (A): 0.279

Blank Corrected Pk Area (A-s): 0.509

Concentration (ug/L ): 82.11

Corrected Conc (ug/L ): 82.11

Mean Conc (ug/L ): 81.97

SD: 0.139

RSD(%): 0.23

Corrected Conc (ug/L ): 81.97

Pb ID: 2817 03 MS

Seq. No.: 00065

A/S Pos.: 21

Date: 06/03/94

uL dispensed: 5 from 35, 4 from 34, 20 from 21

Replicate 1

Time: 10:31

Peak Area (A-s): 0.618

Peak Height (A): 0.825

Background Pk Area (A-s): 0.302

Background Pk Height (A): 0.322

Blank Corrected Pk Area (A-s): 0.611

Concentration (ug/L ): 105.45

Corrected Conc (ug/L ): 105.45

uL dispensed: 5 from 35, 4 from 34, 20 from 21

Replicate 2

Time: 10:34

Peak Area (A-s): 0.620

Peak Height (A): 0.917

Background Pk Area (A-s): 0.301

Background Pk Height (A): 0.318

Blank Corrected Pk Area (A-s): 0.613

Concentration (ug/L ): 105.94

Corrected Conc (ug/L ): 105.94

Mean Conc (ug/L ): 105.69

SD: 0.346

RSD(%): 0.33

Corrected Conc (ug/L ): 105.69

Recovery is 118.6%

Pb ID: CCV

Seq. No.: 00066

A/S Pos.: 21

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 21

132



Peak Area (A-s): 0.347  
Background Pk Area (A-s): 0.245  
Blank Corrected Pk Area (A-s): 0.340  
Concentration (ug/L ): 50.22

Time: 10:38  
Peak Height (A): 0.500  
Background Pk Height (A): 0.170  
Corrected Conc (ug/L ): 50.22

20

uL dispensed: 4 from 0, 5 from 35, 20 from 22

Replicate 2

Peak Area (A-s): 0.347  
Background Pk Area (A-s): 0.240  
Blank Corrected Pk Area (A-s): 0.340  
Concentration (ug/L ): 50.08

Time: 10:41  
Peak Height (A): 0.502  
Background Pk Height (A): 0.169  
Corrected Conc (ug/L ): 50.08

Mean Conc (ug/L ): 50.15

SD: 0.098

RSD(%): 0.20

Corrected Conc (ug/L ): 50.15

Pb ID: CCB

CCB

Seq. No.: 00057

A/S Pos.: 23

Date: 06/03/94

uL dispensed: 4 from 0, 5 from 35, 20 from 23

Replicate 1

Peak Area (A-s): 0.005  
Background Pk Area (A-s): 0.132

Time: 10:44  
Peak Height (A): 0.005  
Background Pk Height (A): 0.050

Blank Corrected Pk Area (A-s): -0.002

Concentration (ug/L ): -0.31

Corrected Conc (ug/L ): -0.31

uL dispensed: 4 from 0, 5 from 35, 20 from 21

Replicate 2

Peak Area (A-s): 0.005  
Background Pk Area (A-s): 0.135  
Blank Corrected Pk Area (A-s): -0.004  
Concentration (ug/L ): -0.53

Time: 10:47  
Peak Height (A): 0.005  
Background Pk Height (A): 0.051  
Corrected Conc (ug/L ): -0.53

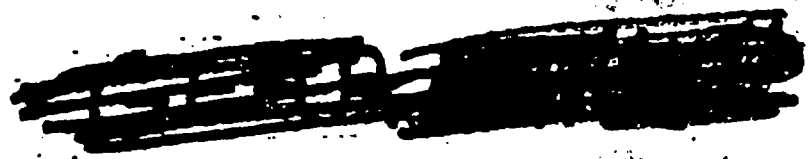
Mean Conc (ug/L ): -0.42

SD: 0.155

RSD(%): 36.46

Corrected Conc (ug/L ): -0.42

G  
F  
A  
A



METALS PREPARATION (DIGESTION) BENCHSHEET

Prepared by: C. STRECHER

Date: 6/2/94

Matrix: SOLID

QC Lot #: 020697

\*  
\*

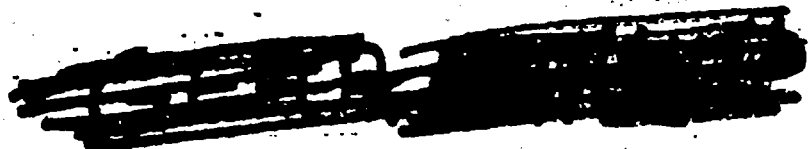
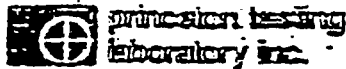
| Sample ID | Initial Weight | Final Volume | Spike Amount | Comments |
|-----------|----------------|--------------|--------------|----------|
| 1. RB     | 1ml            | 100ul        |              |          |
| 2. LCS    | h              |              | 1ml          |          |
| 3. 2812-9 | 1.00g          |              |              |          |
| 4. mp     | 4              |              |              |          |
| 5. MS     | 4              |              | 1ml          |          |
| 6.        | 1              |              |              |          |
| 7.        | V              | V            | V            |          |
| 8.        |                |              |              |          |
| 9.        |                |              |              |          |
| 10.       |                |              |              |          |
| 11.       |                |              |              |          |
| 12.       |                |              |              |          |
| 13.       |                |              |              |          |
| 14.       |                |              |              |          |
| 15.       |                |              |              |          |
| 16.       |                |              |              |          |
| 17.       |                |              |              |          |
| 18.       |                |              |              |          |
| 19.       |                |              |              |          |
| 20.       |                |              |              |          |

| Relinquished By (Name) | Received By (Name)   | Date          | Time         | Reason for Transfer  |
|------------------------|----------------------|---------------|--------------|----------------------|
| <u>C. G.</u>           | <u>C. G.</u>         | <u>6/2/94</u> | <u>1000</u>  | <u>MS/LS</u>         |
| <u>C. G.</u>           | <u>Robert R. ...</u> | <u>6/2/94</u> | <u>16:00</u> | <u>GFAH analysis</u> |
|                        |                      |               |              |                      |

REF# LCS-73.115.15  
MS 22

\* FILTER PAPER PROBLEM - 134

G  
F  
A  
A



METALS PREPARATION (DIGESTION) BENCSHEET

Prepared by: C. STRELLER

Date: 6/2/94

Matrix: AQUEOUS

QC Lot #: 020694

| Sample ID | Initial Weight | Final Volume | Spike Amount | Comments |
|-----------|----------------|--------------|--------------|----------|
| 1. RB     | 100ul          | 100ul        |              |          |
| 2. LCS    | 100ul          | 100ul        | 1ul          |          |
| 3. 2817-3 | 10ul           | 10ul         |              |          |
| 4. DW 3   | ↓              | ↓            |              |          |
| 5. MS 3   | ↓              | ↓            | 1.2ul        |          |
| 6.        |                |              |              |          |
| 7.        |                |              |              |          |
| 8.        |                |              |              |          |
| 9.        |                |              |              |          |
| 10.       |                |              |              |          |
| 11.       |                |              |              |          |
| 12.       |                |              |              |          |
| 13.       |                |              |              |          |
| 14.       |                |              |              |          |
| 15.       |                |              |              |          |
| 16.       |                |              |              |          |
| 17.       |                |              |              |          |
| 18.       |                |              |              |          |
| 19.       |                |              |              |          |
| 20.       |                |              |              |          |

| Relinquished By (Name) | Received By (Name) | Date   | Time  | Reason for Transfer |
|------------------------|--------------------|--------|-------|---------------------|
|                        | C. St              | 6/2/94 | 10:00 | MS                  |
|                        | Robert St          | 6/2/94 | 16:00 | GFAA analysis       |

RAF # LCS-73-115-15

135

TVS  
0.0050g  
5960

2.110g  
8.6478  
TS  
859,170

-10.220  
-8.3994  
32  
TS  
821859

\* 1,000,000

99 (X1000000)

999 mg/kg

7.8293 180

27491

JOB#

2765 15  
" 16  
" 17  
" 18

6-2-94

2765196

27692

27693

28174

28175

28176

27867

6-2-94

CLIPAT-117

Fort Dix RAW  
" ACT.  
" STAB  
" Dup. STAB.

Dish weight & sample weight

47.6983 47.7159 50ML  
58.2618 58.2859  
50.1268 50.1495  
50.1038 50.1238

Sample Weight

352 47.7071 176  
482 58.2738 242  
454 50.1387 216  
400  
DRS 5-31-94

TS

775

Havens & Emers. Dev. 59.2237 61.4342 10.0940 218,991

Havens & Emers. Thick. 53.4002 55.5730 60.1150 111,699

Havens & Emers. Ash 52.2680 60.5114 10.6525 773,846

Fit Monm. 1510.1 52.5121 59.6561 10.2010 700,323

Fit Monm. 1502 53.4385 60.8731 10.4440 711,853

Fit Monm. 1514.1 54.5408 63.0367 10.6820 795,347

N. Hunt Digest. 54.9591 55.3594 50.6880 9530

Middlesex 1.094 3.5689 10.0363 245060

**APPENDIX G**

**GROUNDWATER ANALYTICAL DATA PACKAGE**



EMSL

Environmental

materials

asbestos

New Jersey

Corporate Office &  
Main Laboratory  
18 Haddon Avenue  
Westmont, NJ 08108  
(609) 858-4800

Cooper Street  
Westmont, NJ 08108  
(609) 858-9573

56 Stelton Road  
Scataway, NJ 08854  
(908) 981-0550

New York

208 Stonehenge Lane  
Carle Place, NY 11514  
(516) 997-7251

Georgia

600 Roswell Street, SE  
Suite One  
Myrna, GA 30080  
(404) 333-6065

Florida

1878 Adams Avenue  
Melbourne, FL 32935  
(307) 253-4224

Michigan

12 S. Wagner Road  
Ann Arbor, MI 48103  
(313) 668-6810

California

1720 S. Amphlett Boulevard  
Suite 130  
San Mateo, CA 94402  
(415) 570-5401

Bldg 2000  
ANALYTICAL SERVICES

MW Anal

5/19/95

001

ANALYTICAL DATA REPORT  
FOR  
U.S. ARMY, FORT MONMOUTH  
SELF-M-PW-EV  
Building 173  
Fort Monmouth, NJ 07703

PROJECT : #94518093636

EMSL Project: # 9508317

| Field Sample No.<br>& Location | Laboratory<br>Sample ID | Matrix  | Date & Time<br>of Collection | Date<br>Received |
|--------------------------------|-------------------------|---------|------------------------------|------------------|
| 1837.1 Bldg. 2000 MW1-29317777 | 95-23339                | Aqueous | 5/19/95 @ 1631               | 5/22/95          |
| Trip Blank                     | 95-23340                | Aqueous | 5/19/95 @ 0615               | 5/22/95          |
| Field Blank                    | 95-23341                | Aqueous | 5/19/95 @ 1533               | 5/22/95          |

Laboratory Name

Certification No.

Supervisor/Manager Signature

Printed Name

Date

EMSL ANALYTICAL, INC.

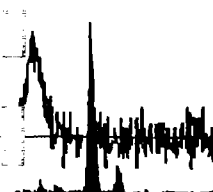
NJDEP No. 04653

PADER No. 68-367

NY-ELAP No. 10896

*Paul V. Laraia*  
Paul V. Laraia

06/23/95



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| . Initial Calibration Data                                |             |
| . Continuing Calibration BFB Tune                         |             |
| . Continuing Calibration Data                             |             |
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| . Sample Results                                          |             |
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| . Matrix Spike/Matrix Spike Duplicate Data                |             |
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| . Initial Calibration Data                                |             |
| . Continuing Calibration DFTPP Tune                       |             |
| . Continuing Calibration Data                             |             |
| . Internal Standards Area Summary                         |             |
| . Sample Results                                          |             |
| . Surrogate Recovery Form                                 |             |
| . Method Blank Data                                       |             |
| . Matrix Spike/Matrix Spike Duplicate Data                |             |
| Statement of Authentication -----                         | 209         |

EMSL

SAMPLE DATA SUMMARY PACKAGE



EMSL

Attention: Charles Appleby  
U.S. Army - Fort Monmouth  
SELFM-PW-EV  
Building 173  
Fort Monmouth NJ 07703

Date of Report: 06/23/95  
Project Number: 09508317  
Lab ID: 95-0023339  
Date Collected: 05/19/95 16:31  
Collected By: Client  
Date Received: 05/22/95 07:00

Client Project: 94518093636

Client Designation: Bldg.2000 *USDEP MWL#*  
*FMETL #1837.1*  
MW1-2931777

Conc. Unit

ORGANIC

Semi-Volatiles

BN by 625 with Library Search

see attached ug/l

Volatiles

Volatiles by 524.2 w/ Library Search

see attached ug/l

Lab Name: EMSL ANALYTICAL Contract: NIDEP# Bldg 2000 MWI-2931777  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Matrix: (soil/water) WATER Lab Sample ID: 9523339B  
 Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7811.D  
 Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95  
 % Moisture: \_\_\_\_\_ decanted: (Y/N): N Date Extracted: 5/26/95  
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95  
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

| CAS No.   | Compound                      | Concentration Units: |      |
|-----------|-------------------------------|----------------------|------|
|           |                               | (ug/L or ug/Kg)      | ug/L |
|           |                               |                      | Q    |
| 62-75-9   | N-nitrosodimethylamine        | 2                    | U    |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1                    | U    |
| 541-73-1  | 1,3-Dichlorobenzene           | 2                    | U    |
| 106-46-7  | 1,4-Dichlorobenzene           | 1                    | U    |
| 95-50-1   | 1,2-Dichlorobenzene           | 2                    | U    |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5                    | U    |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2                    | U    |
| 67-72-1   | Hexachloroethane              | 1                    | U    |
| 98-95-3   | Nitrobenzene                  | 2                    | U    |
| 78-59-1   | Isophorone                    | 1                    | U    |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3                    | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2                    | U    |
| 91-20-3   | Naphthalene                   | 2                    | U    |
| 87-68-3   | Hexachlorobutadiene           | 2                    | U    |
| 77-47-4   | Hexachlorocyclopentadiene     | 12                   | U    |
| 91-58-7   | 2-Chloronaphthalene           | 1                    | U    |
| 131-11-3  | Dimethylphthalate             | 1                    | U    |
| 208-96-8  | Acenaphthylene                | 5                    | U    |
| 606-20-2  | 2,6-Dinitrotoluene            | 2                    | U    |
| 83-32-9   | Acenaphthene                  | 3                    | U    |
| 121-14-2  | 2,4-Dinitrotoluene            | 3                    | U    |
| 84-66-2   | Diethylphthalate              | 1                    | U    |
| 86-73-7   | Fluorene                      | 3                    | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3                    | U    |
| 86-30-6   | n-Nitrosodiphenylamine        | 6                    | U    |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6                    | U    |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2                    | U    |
| 118-74-1  | Hexachlorobenzene             | 2                    | U    |
| 85-01-08  | Phenanthrene                  | 2                    | U    |
| 120-12-7  | Anthracene                    | 2                    | U    |
| 84-74-2   | Di-n-butylphthalate           | 5                    | U    |
| 206-44-0  | Fluoranthene                  | 1                    | U    |
| 92-87-5   | Benzidine                     | 1                    | U    |

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: EMSL ANALYTICAL

**Contract:**

**9523339B**

9523339B  
NIDBP#  
Bldg 2000 MWI-2931777

Project No.:

**Site:**

Location:

**Group:**

Matrix: (soil/water) WATER

Lab Sample ID: 9523339B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B7811.D

Level: (low/med)

Date Received: 5/22/95

% Moisture:                      decanted: (Y/N):          N

Date Extracted: 5/26/95

**Concentrated Extract Volume:** 1000 (uL)

Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

**Concentration Units:**

(ug/L or ug/Kg)

ug/L

**O**

[illegible]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

9523339B *USDEP#*  
*Bldg 2000 MW-2931777*

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Matrix: (soil/water) WATER Lab Sample ID: 9523339B  
Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7811.D  
Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95  
% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/26/95  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_\_  
Concentration Units: \_\_\_\_\_  
Number TICs found: 4 (ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name              | RT    | Est. Conc | Q |
|-------------|----------------------------|-------|-----------|---|
| 1. 90-12-0  | Naphthalene, 1-methyl-     | 15.13 | 4         | J |
| 2. 575-43-9 | Naphthalene, 1,6-dimethyl- | 17.31 | 5         | J |
| 3.          | Unknown                    | 29.87 | 6         | J |
| 4.          | Unknown                    | 34.38 | 4         | J |
| 5.          |                            |       |           |   |
| 6.          |                            |       |           |   |
| 7.          |                            |       |           |   |
| 8.          |                            |       |           |   |
| 9.          |                            |       |           |   |
| 10.         |                            |       |           |   |
| 11.         |                            |       |           |   |
| 12.         |                            |       |           |   |
| 13.         |                            |       |           |   |
| 14.         |                            |       |           |   |
| 15.         |                            |       |           |   |
| 16.         |                            |       |           |   |
| 17.         |                            |       |           |   |
| 18.         |                            |       |           |   |
| 19.         |                            |       |           |   |
| 20.         |                            |       |           |   |
| 21.         |                            |       |           |   |
| 22.         |                            |       |           |   |
| 23.         |                            |       |           |   |
| 24.         |                            |       |           |   |
| 25.         |                            |       |           |   |
| 26.         |                            |       |           |   |
| 27.         |                            |       |           |   |
| 28.         |                            |       |           |   |
| 29.         |                            |       |           |   |
| 30.         |                            |       |           |   |

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

WDEP #

Bldg 2000 MWI-29317777

Lab Name: EMSL ANALYTICAL  
Matrix (soil/water): WATER  
Sample wt/vol: 25 mL  
Level (low/med): LOW  
% Moisture: not dec.: NA  
GC Column: DB-624 x 75m ID: 0.53mm  
Soil Extract Volume: NA

Lab Sample ID: 9523339  
Lab File ID: C8330.D  
Date Received: 05/22/95  
Date Analyzed: 06/02/95  
Dilution Factor: 1  
Soil Aliquot Volume: NA

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L COMMENT

|            |                           |     |   |
|------------|---------------------------|-----|---|
| 75-71-8    | Dichlorodifluoromethane   | .50 | U |
| 74-87-3    | Chloromethane             | .50 | U |
| 74-83-9    | Bromomethane              | .50 | U |
| 75-01-4    | Vinyl Chloride            | .50 | U |
| 75-00-3    | Chloroethane              | .50 | U |
| 75-69-4    | Trichlorofluoromethane    | .50 | U |
| 75-09-2    | Methylene Chloride        | 1.9 | B |
| 156-60-65  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4    | 1,1-Dichloroethene        | .50 | U |
| 75-34-3    | 1,1-Dichloroethane        | .50 | U |
| 594-20-7   | 2,2-Dichloropropane       | .50 | U |
| 74-97-1    | Bromochloromethane        | .50 | U |
| 156-59-2   | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3    | Chloroform                | .50 | U |
| 563-58-6   | 1,1-Dichloropropene       | .50 | U |
| 107-06-2   | 1,2-Dichloroethane        | .50 | U |
| 71-55-6    | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3    | Dibromomethane            | .50 | U |
| 56-23-1    | Carbon Tetrachloride      | .50 | U |
| 75-27-4    | Bromodichloromethane      | .50 | U |
| 78-87-1    | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9   | 1,3-Dichloropropane       | .50 | U |
| 79-01-6    | Trichloroethene           | .50 | U |
| 124-48-1   | Dibromochloromethane      | .50 | U |
| 79-00-1    | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2    | Benzene                   | .50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2    | Bromoform                 | .50 | U |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4   | Tetrachloroethene         | .50 | U |
| 79-34-1    | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3   | Toluene                   | .50 | U |
| 106-93-4   | 1,2-Dibromoethane         | .50 | U |
| 108-90-7   | Chlorobenzene             | .50 | U |
| 100-41-4   | Ethylbenzene              | .50 | U |
| 1330-29-7  | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

WJDEPH

Bldg 2000 MWI-2931777

Lab Name: EMSL ANALYTICAL  
Matrix (soil/water): WATER  
Sample wt/vol: 25 mL  
Level (low/med): LOW  
% Moisture: not dec.: NA  
GC Column: DB-624 x 75m ID: 0.53mm  
Soil Extract Volume: NA

Lab Sample ID: 9523339  
Lab File ID: C8330.D  
Date Received: 05/22/95  
Date Analyzed: 06/02/95  
Dilution Factor: 1  
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

|          |                             |     |   |
|----------|-----------------------------|-----|---|
| 100-42-1 | Styrene                     | .50 | U |
| 98-82-8  | Isopropylbenzene            | .50 | U |
| 108-86-1 | Bromobenzene                | .50 | U |
| 96-18-4  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1 | n-Propylbenzene             | .50 | U |
| 95-49-8  | 2-Chlorotoluene             | .50 | U |
| 106-43-4 | 4-Chlorotoluene             | .50 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene      | .70 |   |
| 98-06-6  | tert-Butylbenzene           | .50 | U |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 1.5 |   |
| 135-98-8 | sec-Butylbenzene            | .60 |   |
| 541-73-1 | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7 | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6  | 4-Isopropyltoluene          | .80 |   |
| 95-50-1  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8 | n-Butylbenzene              | .80 |   |
| 96-12-8  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3  | Hexachlorobutadiene         | .50 | U |
| 91-20-3  | Naphthalene                 | .80 |   |
| 87-61-6  | 1,2,3-Trichlorobenzene      | .50 | U |

COMMENT

U= Not Detected

BLDG.#: 200 MW#: 1 NJDEPE WELL ID # 29317777U.S. ARMY FORT MONMOUTH  
MONITORING WELL SAMPLING DATASHEETDATE: 5-19-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #:

SAMPLERS NAMES: Tim Baxter Susan PalonisWEATHER CONDITIONS: Cold, damp, → WindyELEVATION OF CASING SURVEY MARK:           TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 15.09 FTDEPTH FROM SURVEYORS MARK TO SCREEN:            FTLENGTH OF SCREENED SECTION:            FT.DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 10.59 FTELEVATION OF GW PRIOR TO PURGING:            FTTHICKNESS OF LNAPL PRIOR TO PURGING :            FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: <1 PPM <sup>none detected.</sup> DD 2.9 ppmpH: 6.23 TEMP: 55.4 °F, SPECIFIC CONDUCTIVITY: 439 µs/cmDEPTH OF WELL:            FTHEIGHT OF WATER:            FTEVACUATED GAL. H2O: 9 GAL  $(4.5 \times .65 \times 3 = 8.775)$ PURGING START TIME: 1517 END TIME:           

PURGE METHOD: (FLOW RATE OF &lt;0.5 GPM TO &gt;5.0

GPM) pumpPURGE RATE (<0.5 GPM): 2 GPMTOTAL VOLUME PURGED: 9 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 12.48 FTDISSOLVED OXYGEN: 2.9 ppm pH: 6.67 TEMP: 56.1 °FSPECIFIC CONDUCTIVITY: 427 µs/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 1619 END TIME: 1631DISSOLVED OXYGEN: 2.4 ppm pH: 6.34 TEMP: 55.5 °FSPECIFIC CONDUCTIVITY: 457 µs/cmCOMMENTS: on site 1405 break on site 1507 slow dischargeclean no odor

\* 48

work on site

EMSL

Attention: Charles Appleby  
U.S. Army - Fort Monmouth  
SELF-M-PW-EV  
Building 173  
Fort Monmouth NJ 07703

Date of Report: 06/23/95  
Project Number: 09508317  
Lab ID: 95-0023340  
Date Collected: 05/19/95 16:31  
Collected By: Client  
Date Received: 05/22/95 07:00

Client Project: 94518093636

Client Designation: Trip Blank

*Bkg 2000*  
FMETL # 1835.2

Conc. Unit

ORGANIC

Volatiles

Volatiles by 524.2 w/ Library Search

see attached ug/l



1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
Matrix (soil/water): WATER  
Sample wt/vol: 25 mL  
Level (low/med): LOW  
% Moisture: not dec.: NA  
GC Column: DB-624 x 75m ID: 0.53mm  
Soil Extract Volume: NA

TRIP BLANK  
Lab Sample ID: 9523340  
Lab File ID: C8331.D  
Date Received: 05/22/95  
Date Analyzed: 06/02/95  
Dilution Factor: 1  
Soil Aliquot Volume: NA

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L COMMENT

|            |                           |     |   |
|------------|---------------------------|-----|---|
| 75-71-8    | Dichlorodifluoromethane   | .50 | U |
| 74-87-3    | Chloromethane             | .50 | U |
| 74-83-9    | Bromomethane              | .50 | U |
| 75-01-4    | Vinyl Chloride            | .50 | U |
| 75-00-3    | Chloroethane              | .50 | U |
| 75-69-4    | Trichlorofluoromethane    | .50 | U |
| 75-09-2    | Methylene Chloride        | 6.4 | B |
| 156-60-65  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4    | 1,1-Dichloroethene        | .50 | U |
| 75-34-3    | 1,1-Dichloroethane        | .50 | U |
| 594-20-7   | 2,2-Dichloropropane       | .50 | U |
| 74-97-1    | Bromochloromethane        | .50 | U |
| 156-59-2   | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3    | Chloroform                | .50 | U |
| 563-58-6   | 1,1-Dichloropropene       | .50 | U |
| 107-06-2   | 1,2-Dichloroethane        | .50 | U |
| 71-55-6    | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3    | Dibromomethane            | .50 | U |
| 56-23-1    | Carbon Tetrachloride      | .50 | U |
| 75-27-4    | Bromodichloromethane      | .50 | U |
| 78-87-1    | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9   | 1,3-Dichloropropane       | .50 | U |
| 79-01-6    | Trichloroethene           | .50 | U |
| 124-48-1   | Dibromochloromethane      | .50 | U |
| 79-00-1    | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2    | Benzene                   | .50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2    | Bromoform                 | .50 | U |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4   | Tetrachloroethene         | .50 | U |
| 79-34-1    | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3   | Toluene                   | .80 | U |
| 106-93-4   | 1,2-Dibromoethane         | .50 | U |
| 108-90-7   | Chlorobenzene             | .50 | U |
| 100-41-4   | Ethylbenzene              | .50 | U |
| 1330-29-7  | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
Matrix (soil/water): WATER  
Sample wt/vol: 25 mL  
Level (low/med): LOW  
% Moisture: not dec.: NA  
GC Column: DB-624 x 75m ID: 0.53mm  
Soil Extract Volume: NA

TRIP BLANK  
Lab Sample ID: 9523340  
Lab File ID: C8331.D  
Date Received: 05/22/95  
Date Analyzed: 06/02/95  
Dilution Factor: 1  
Soil Aliquot Volume: NA

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L COMMENT

|          |                             |     |   |
|----------|-----------------------------|-----|---|
| 100-42-1 | Styrene                     | .50 | U |
| 98-82-8  | Isopropylbenzene            | .50 | U |
| 108-86-1 | Bromobenzene                | .50 | U |
| 96-18-4  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1 | n-Propylbenzene             | .50 | U |
| 95-49-8  | 2-Chlorotoluene             | .60 |   |
| 106-43-4 | 4-Chlorotoluene             | .50 | U |
| 108-67-8 | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6  | tert-Butylbenzene           | .50 | U |
| 95-63-6  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8 | sec-Butylbenzene            | .50 | U |
| 541-73-1 | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7 | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8 | n-Butylbenzene              | .50 | U |
| 96-12-8  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3  | Hexachlorobutadiene         | .50 | U |
| 91-20-3  | Naphthalene                 | .50 | U |
| 87-61-6  | 1,2,3-Trichlorobenzene      | .50 | U |

COMMENT

U= Not Detected

EMSL

Attention: Charles Appleby  
U.S. Army - Fort Monmouth  
SELF-M-PW-EV  
Building 173  
Fort Monmouth NJ 07703

Date of Report: 06/23/95  
Project Number: 09508317  
Lab ID: 95-0023341  
Date Collected: 05/19/95 15:33  
Collected By: Client  
Date Received: 05/22/95 07:00

Client Project: 94518093636

Client Designation: Field Blank

*Bldg 2000*  
*FMETL #1835.3*

| Conc. | Unit |
|-------|------|
|-------|------|

ORGANIC

Semi-Volatiles

BN by 625 with Library Search

see attached ug/l

Volatiles

Volatiles by 524.2 w/ Library Search

see attached ug/l

9523341B

Field Blank

014

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9523341B

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: B7812.D

Level: (low/med)

Date Received: 5/22/95

% Moisture: decanted: (Y/N): N

Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               | U    | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               | U    | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               | U    | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               | U    | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               | U    | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               | U    | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               | U    | U |
| 67-72-1   | Hexachloroethane              | 1               | U    | U |
| 98-95-3   | Nitrobenzene                  | 2               | U    | U |
| 78-59-1   | Isophorone                    | 1               | U    | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               | U    | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               | U    | U |
| 91-20-3   | Naphthalene                   | 2               | U    | U |
| 87-68-3   | Hexachlorobutadiene           | 2               | U    | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              | U    | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               | U    | U |
| 131-11-3  | Dimethylphthalate             | 1               | U    | U |
| 208-96-8  | Acenaphthylene                | 5               | U    | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               | U    | U |
| 83-32-9   | Acenaphthene                  | 3               | U    | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               | U    | U |
| 84-66-2   | Diethylphthalate              | 1               | U    | U |
| 86-73-7   | Fluorene                      | 3               | U    | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               | U    | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               | U    | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               | U    | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               | U    | U |
| 118-74-1  | Hexachlorobenzene             | 2               | U    | U |
| 85-01-08  | Phenanthrene                  | 2               | U    | U |
| 120-12-7  | Anthracene                    | 2               | U    | U |
| 84-74-2   | Di-n-butylphthalate           | 5               | U    | U |
| 206-44-0  | Fluoranthene                  | 1               | U    | U |
| 92-87-5   | Benzidine                     | 1               | U    | U |

**SAMPLE NO.**

015

**9523341B**

Field Blank

**Contract:**

**Group:**

Lab Sample ID: 9523341B

Lab File ID: B7812.D

Date Received: 5/22/95

Date Extracted: 5/26/95

Date Analyzed: 6/3/95

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

[illegible]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS9523341B  
Field BLANK

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Matrix: (soil/water) WATER Lab Sample ID: 9523341B  
Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7812.D  
Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95  
% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/26/95  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_\_  
Concentration Units: \_\_\_\_\_  
Number TICs found: 1 (ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT    | Est. Conc | Q |
|------------|---------------|-------|-----------|---|
| 1.         | Unknown       | 29.88 | 7         | J |
| 2.         |               |       |           |   |
| 3.         |               |       |           |   |
| 4.         |               |       |           |   |
| 5.         |               |       |           |   |
| 6.         |               |       |           |   |
| 7.         |               |       |           |   |
| 8.         |               |       |           |   |
| 9.         |               |       |           |   |
| 10.        |               |       |           |   |
| 11.        |               |       |           |   |
| 12.        |               |       |           |   |
| 13.        |               |       |           |   |
| 14.        |               |       |           |   |
| 15.        |               |       |           |   |
| 16.        |               |       |           |   |
| 17.        |               |       |           |   |
| 18.        |               |       |           |   |
| 19.        |               |       |           |   |
| 20.        |               |       |           |   |
| 21.        |               |       |           |   |
| 22.        |               |       |           |   |
| 23.        |               |       |           |   |
| 24.        |               |       |           |   |
| 25.        |               |       |           |   |
| 26.        |               |       |           |   |
| 27.        |               |       |           |   |
| 28.        |               |       |           |   |
| 29.        |               |       |           |   |
| 30.        |               |       |           |   |

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
Matrix (soil/water): WATER  
Sample wt/vol: 25 mL  
Level (low/med): LOW  
% Moisture: not dec.: NA  
GC Column: DB-624 x 75m ID: 0.53mm  
Soil Extract Volume: NA

*Field Blank*

Lab Sample ID: 9523341  
Lab File ID: C8332.D  
Date Received: 05/22/95  
Date Analyzed: 06/02/95  
Dilution Factor: 1  
Soil Aliquot Volume: NA

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 6.3 | B |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .50 | U |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: 9523341  
Matrix (soil/water): WATER Lab File ID: C8332.D  
Sample wt/vol: 25 mL Date Received: 05/22/95  
Level (low/med): LOW Date Analyzed: 06/02/95  
% Moisture: not dec.: NA Dilution Factor: 1  
GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA  
Soil Extract Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .50 | U |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8----- | sec-Butylbenzene            | .50 | U |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .50 | U |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .50 | U |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |

COMMENT

U= Not Detected



## LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR  
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

|                                                                                                              | Check If<br>Complete |
|--------------------------------------------------------------------------------------------------------------|----------------------|
| 1. Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.              | <u>X</u>             |
| 2. Table of Contents                                                                                         | <u>X</u>             |
| 3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.                    | <u>X</u>             |
| 4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s.                                              | <u>X</u>             |
| 5. Document bound, paginated and legible.                                                                    | <u>X</u>             |
| 6. Chain of Custody                                                                                          | <u>X</u>             |
| 7. Methodology Summary                                                                                       | <u>X</u>             |
| 8. Laboratory Chronicle and Holding Time Check.                                                              | <u>X</u>             |
| 9. Results submitted on a dry weight basis (if applicable).                                                  | <u>X</u>             |
| 10. Method Detection Limits.                                                                                 | <u>X</u>             |
| 11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP. | <u>X</u>             |
| 12. Non-Conformance Summary                                                                                  | <u>X</u>             |

Patricia B. Pantar for P.V.L. Jr.  
Laboratory Manager or Environmental  
Consultant's Signature

06/23/95  
Date

## QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

## A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

## Page #

- |              |                                                                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>1</u>     | 1. Name and address of the facility.                                                                                                                             |
| <u>1</u>     | 2. Name of the laboratory performing the sample analysis.                                                                                                        |
| <u>1</u>     | 3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.                                                                              |
| <u>1</u>     | 4. Laboratory sample identification number.                                                                                                                      |
| <u>1</u>     | 5. Customer sample identification number corresponding to the laboratory sample identification.                                                                  |
| <u>1</u>     | 6. Sample Location (also on the site diagram).                                                                                                                   |
| <u>1</u>     | 7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges). All sediment results must be reported on a dry weight basis. |
| <u>26-27</u> | 8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).                                                                                    |
| <u>1</u>     | 9. The signature of the person completing the report form.                                                                                                       |
| <u>1</u>     | 10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.                                   |
| <u>28</u>    | 11. A list of all parameters (constituents and conditions) for which the analyses were performed.                                                                |
| <u>3-18</u>  | 12. Sample results and corresponding units for each parameter.                                                                                                   |

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

950831-

## Chain of Custody

AI-ENV COC form 01

Page 1 of 1 Pages

Rev. A Date: 02 Apr 93

## Environmental Laboratory

25

**To be completed upon sample receipt**

1. Place an X in box if okay.
2. Record actual pH if outside acceptable range
3. Record temperature of cool blank or water 1000 if samples are cooled.
4. Record corrective action in remarks.

[illegible]

EMSL LAB ID NO. 95-23339, 95-23340, 95-23341 PROJECT NO. 9508317

## SAMPLE/CONTAINERS

## PARAMETERS

[illegible]

Project #: 9508317 025

Lab ID #'s: 95-23339, 95-23340  
95-23341

Analyst

|                     | Name (please print)    | Signature         | Date          |
|---------------------|------------------------|-------------------|---------------|
| 1. Base/Neutrals    | <u>Scott Van Etten</u> | <u>SV</u>         | <u>6/3/95</u> |
| 2. Acids            |                        |                   |               |
| 3. Pesticides       |                        |                   |               |
| 4. Herbicides       |                        |                   |               |
| 5. PCB's            |                        |                   |               |
| 6. Metals:          |                        |                   |               |
| <u>Flame</u>        |                        |                   |               |
| <u>Furnace</u>      |                        |                   |               |
| <u>ICP</u>          |                        |                   |               |
| 7. Volatiles:       |                        |                   |               |
| <u>GC</u>           |                        |                   |               |
| <u>GC/MS</u>        | <u>Scott Kessler</u>   | <u>S. Kessler</u> | <u>6/2/95</u> |
| 8. TOC              |                        |                   |               |
| 9. TOX              |                        |                   |               |
| 10. Phenols (Total) |                        |                   |               |
| 11. Cyanide (Total) |                        |                   |               |
| 12. TPH -IR         |                        |                   |               |
| 13. Mercury         |                        |                   |               |
| 14. Other           |                        |                   |               |
| 15. Other           |                        |                   |               |
| 16. Other           |                        |                   |               |

## **METHODOLOGY SUMMARY**



**METHODOLOGY SUMMARY****EPA Method 524.2 - Aqueous**

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capillary column (DB-624 0.53 mm ID).

Method detection limits are as stated.

**Semivolatiles by GC/MS - Aqueous**

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. Reference is Federal Register, Vol. 40, No. 136, July, 1988.

An HP5890/5970B GC/MS is used with a DB-5 fused silica capillary column.

If tentatively identified compounds are requested, a computer program analyzes the non-priority pollutant/HSL/TCL compounds with standard mass spectra found in the latest version of the NIH/NBS/EPA mass spectral library.

Method detection limits are as stated.



LABORATORY CHRONICLE

Lab ID: 95-23339, 95-23340, 95-23341

Client: U. S. Army, Fort Monmouth

|                          | I | DATE    | II | <u>Hold Time</u> |
|--------------------------|---|---------|----|------------------|
| Date Sampled             |   | 5/19/95 |    |                  |
| Receipt/Refrigeration    |   | 5/22/95 |    |                  |
| Extractions              |   |         |    |                  |
| 1. Semivolatile Organics |   | 5/26/95 |    | 7 days           |
| Analyses                 |   |         |    |                  |
| 1. Volatile Organics     |   | 6/2/95  |    | 14 days          |
| 2. Semivolatile Organics |   | 6/3/95  |    | 40 days          |

QC Supervisor  
Review & Approval(Signature) Peter B. Pantan  
(Printed Name) Peter B. Pantan(Date) 06/23/95

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

|                                                                                                                                                                                                                                | No | Yes |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|
| 1. Chromatograms Labeled/Compounds Identified<br>(Field Samples and Method Blanks)                                                                                                                                             |    | X   |
| 2. GC/MS Tune Specifications                                                                                                                                                                                                   |    |     |
| a. BFB Meet Criteria                                                                                                                                                                                                           |    | X   |
| b. DFTPP Meet Criteria                                                                                                                                                                                                         |    | X   |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12<br>hours for 8000 series.                                                                                                                           |    | X   |
| 4. GC/MS Calibration - Initial Calibration performed within 30 days before sample<br>analysis and continuing calibration performed within 24 hours of<br>sample analysis for 600 series and 12 hours for 8000 series.          |    | X   |
| 5. GC/MS Calibration - Initial Requirements                                                                                                                                                                                    |    |     |
| a. Calibration Check Compounds                                                                                                                                                                                                 |    | X   |
| b. System Performance Check Compounds                                                                                                                                                                                          |    | X   |
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                                                                                              |    | X   |
| a. VOA Fraction <u>Methylene Chloride 4.7 ppb.</u>                                                                                                                                                                             |    |     |
| b. B/N Fraction _____                                                                                                                                                                                                          |    |     |
| c. Acid Fraction _____                                                                                                                                                                                                         |    |     |
| 7. Surrogate Recoveries Meet Criteria                                                                                                                                                                                          |    | X   |
| If not met, list those compounds and their recoveries which fall outside the<br>acceptable range:                                                                                                                              |    |     |
| a. VOA Fraction _____                                                                                                                                                                                                          |    |     |
| b. B/N Fraction _____                                                                                                                                                                                                          |    |     |
| c. Acid Fraction _____                                                                                                                                                                                                         |    |     |
| If not met, were the calculations checked and the results qualified as<br>"estimated"?                                                                                                                                         |    |     |
| 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list<br>those compounds and their recoveries which fall outside the acceptable range)                                                             | X  |     |
| a. VOA Fraction <u>Methylene Chloride MS/MSD 69% 70%. Xylene</u><br><u>(para &amp; meta) MS 65% RPD 32; Xylene (ortho) MS 70% RPD 30; Styrene</u><br><u>MS/MSD 21%/39% RPD 62; 1,1,2,2-Tetrachloroethane MS/MSD 122%/124%.</u> |    |     |
| b. B/N Fraction _____                                                                                                                                                                                                          |    |     |
| c. Acid Fraction _____                                                                                                                                                                                                         |    |     |
| 9. Internal Standard Area/Retention Time Shift Meet Criteria                                                                                                                                                                   |    | X   |

EMSL

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT, cont.

- |                                                                         | <u>No</u> | <u>Yes</u>           |
|-------------------------------------------------------------------------|-----------|----------------------|
| 10. Extraction Holding Time Met                                         | _____     | _____ <b>X</b> _____ |
| If not met, list number of days exceeded for each sample:               |           |                      |
| _____                                                                   |           |                      |
| _____                                                                   |           |                      |
| 11. Analysis Holding Time Met                                           | _____     | _____ <b>X</b> _____ |
| If not met, list number of days exceeded for each sample:               |           |                      |
| _____                                                                   |           |                      |
| _____                                                                   |           |                      |
| 12. Definitions:                                                        |           |                      |
| U=Not Detected. J=Detected, but below report detection limit.           |           |                      |
| B=Compound found in blank. E=Estimated concentration. NA=Not Applicable |           |                      |

Additional Comments:

Laboratory Manager

Pat B. Pinter for P.V.L. jr.

Date:

06/23/05

EMSL

GC/MS VOLATILE ORGANIC DATA PACKAGE

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

032

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab File ID: C8236.D BFB Injection Date: 05/26/95  
 Instrument ID: 5972-INSTRUMENT-1 BFB Injection Time: 0953  
 GC Column DB-62 ID: 0.53 (mm) Heated Purge: ( Y / N ) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 21.8                 |
| 75  | 30.0 - 60.0% of mass 95            | 52.3                 |
| 95  | Base peak, 100% relative abundance | 100.0                |
| 96  | 5.0 - 9.0% of mass 95              | 6.8                  |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 ) 1        |
| 174 | Greater than 50.0% of mass 95      | 57.2                 |
| 175 | 5.0 - 9.0% of mass 174             | 4.2 ( 7.4 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 55.4 ( 96.9 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.2 ( 5.8 ) 2        |

1-Value is % mass 174

2-Value is % mass 176

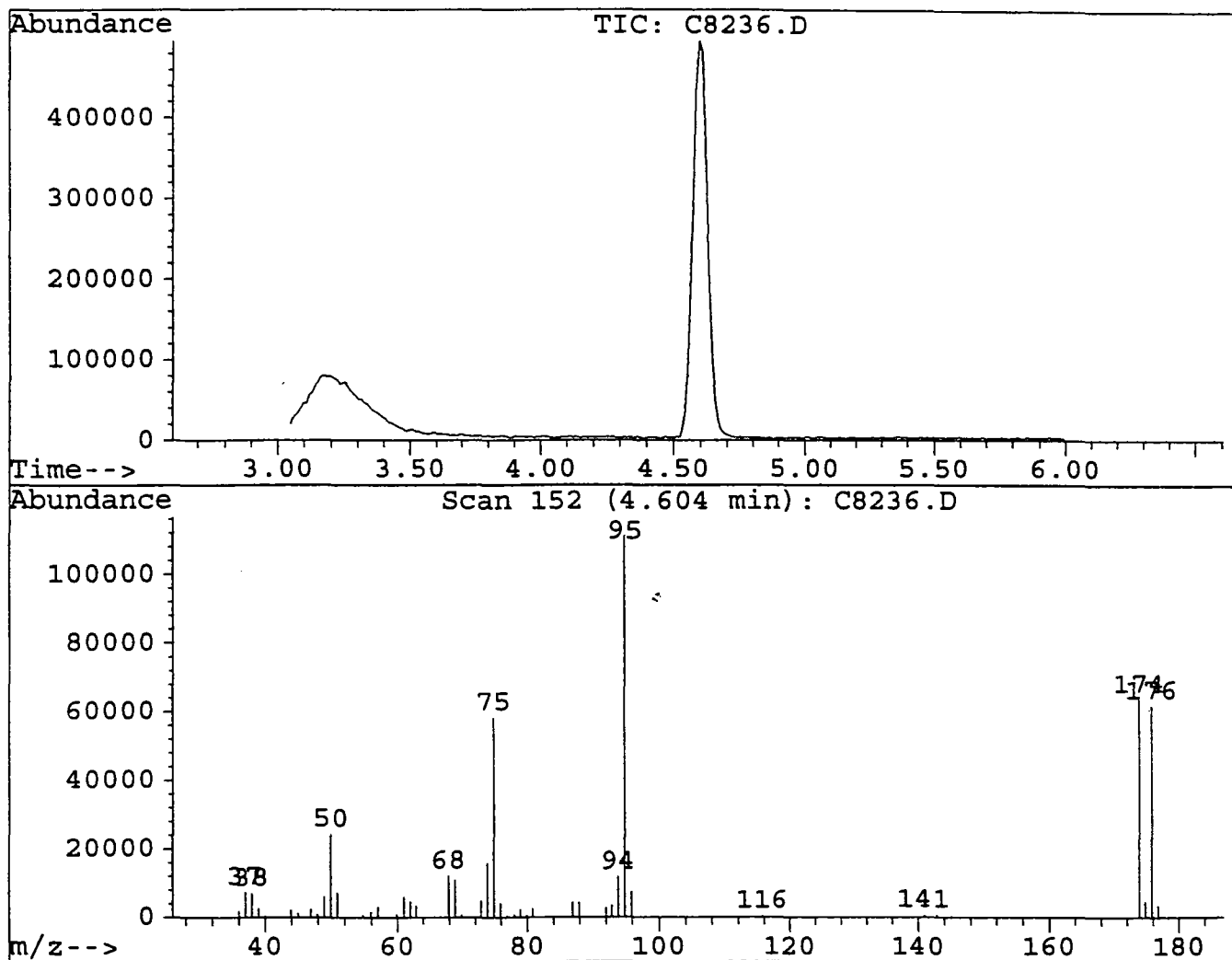
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

|    | CLIENT<br>SAMPLE ID | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|----|---------------------|------------------|----------------|------------------|------------------|
| 01 |                     | 4 PPB STANDARD   | C8237.D        | 05/26/95         | 1035             |
| 02 |                     | 10 PPB STANDARD  | C8238.D        | 05/26/95         | 1117             |
| 03 |                     | 20 PPB STANDARD  | C8239.D        | 05/26/95         | 1151             |
| 04 |                     | 30 PPB STANDARD  | C8240.D        | 05/26/95         | 1226             |
| 05 |                     | 40 PPB STANDARD  | C8241.D        | 05/26/95         | 1300             |
| 06 |                     |                  |                |                  |                  |
| 07 |                     |                  |                |                  |                  |
| 08 |                     |                  |                |                  |                  |
| 09 |                     |                  |                |                  |                  |
| 10 |                     |                  |                |                  |                  |
| 11 |                     |                  |                |                  |                  |
| 12 |                     |                  |                |                  |                  |
| 13 |                     |                  |                |                  |                  |
| 14 |                     |                  |                |                  |                  |
| 15 |                     |                  |                |                  |                  |
| 16 |                     |                  |                |                  |                  |
| 17 |                     |                  |                |                  |                  |
| 18 |                     |                  |                |                  |                  |
| 19 |                     |                  |                |                  |                  |
| 20 |                     |                  |                |                  |                  |
| 21 |                     |                  |                |                  |                  |
| 22 |                     |                  |                |                  |                  |

Data File : D:\HPCHEM\1\DATA\C8236.D  
Acq On : 26 May 95 9:53 am  
Sample : BFB TUNE  
Misc : 25 NG INJECTION

Vial: 1  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics



Peak Apex is scan: 152

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 21.8      | 24232   | PASS             |
| 75          | 95           | 30           | 60           | 52.3      | 58152   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 111200  | PASS             |
| 96          | 95           | 5            | 9            | 6.8       | 7580    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 57.2      | 63568   | PASS             |
| 175         | 174          | 5            | 9            | 7.4       | 4678    | PASS             |
| 176         | 174          | 95           | 101          | 96.9      | 61624   | PASS             |
| 177         | 176          | 5            | 9            | 5.8       | 3577    | PASS             |

Scan 152 (4.604 min): C8236.D  
BFB TUNE

034

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.00 | 1948   | 50.95 | 7307   | 72.95 | 4912   | 92.05  | 2865   |
| 37.00 | 7455   | 54.75 | 959    | 73.95 | 15989  | 92.95  | 3574   |
| 38.00 | 7055   | 55.95 | 1728   | 74.95 | 58152  | 93.95  | 11832  |
| 39.00 | 2560   | 57.00 | 3162   | 75.95 | 4270   | 94.95  | 111200 |
| 40.00 | 629    | 59.90 | 1118   | 76.95 | 625    | 95.95  | 7580   |
| 43.90 | 2201   | 61.00 | 6169   | 78.00 | 812    | 115.75 | 506    |
| 45.00 | 1268   | 62.00 | 4780   | 78.90 | 2214   | 140.90 | 844    |
| 46.95 | 2491   | 62.90 | 3458   | 79.90 | 782    | 142.80 | 807    |
| 47.95 | 1002   | 67.95 | 12140  | 80.80 | 2619   | 173.95 | 63568  |
| 48.95 | 6125   | 68.95 | 11009  | 86.90 | 4356   | 174.85 | 4678   |
| 49.95 | 24232  | 69.95 | 836    | 87.95 | 4439   | 175.85 | 61624  |

Scan 152 (4.604 min): C8236.D  
BFB TUNE

| m/z    | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|--------|--------|-----|--------|-----|--------|-----|--------|
| 176.85 | 3577   |     |        |     |        |     |        |



Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D  
 30 =C8240.D 40 =C8241.D

| Compound       |                       | 4     | 10    | 20    | 30    | 40    | Avg    | %RSD  |
|----------------|-----------------------|-------|-------|-------|-------|-------|--------|-------|
| -----ISTD----- |                       |       |       |       |       |       |        |       |
| 1)             | Fluorobenzene         |       |       |       |       |       |        |       |
| 2) M           | Dichlorodifluorometha | 0.410 | 0.422 | 0.387 | 0.385 | 0.379 | 0.396  | 4.69  |
| 3) M           | Chloromethane         | 0.227 | 0.249 | 0.227 | 0.232 | 0.232 | 0.233  | 3.89  |
| 4) M           | Vinyl chloride        | 0.262 | 0.275 | 0.259 | 0.260 | 0.259 | 0.263  | 2.58  |
| 5) M           | Bromomethane          | 0.193 | 0.197 | 0.170 | 0.166 | 0.164 | 0.178  | 8.95  |
| 6) M           | Chloroethane          | 0.164 | 0.171 | 0.161 | 0.152 | 0.122 | 0.154  | 12.48 |
| 7) M           | Trichlorofluoromethan | 0.583 | 0.600 | 0.585 | 0.589 | 0.581 | 0.588  | 1.25  |
| 8) M           | 1,1-Dichloroethene    | 0.255 | 0.266 | 0.258 | 0.257 | 0.254 | 0.258  | 1.92  |
| 9) M           | Methylene chloride    |       | 0.352 | 0.271 | 0.240 | 0.232 | 0.274  | 19.95 |
| 10) M          | trans-1,2-Dichloroeth | 0.274 | 0.279 | 0.270 | 0.271 | 0.270 | 0.273  | 1.39  |
| 11)            | Hexane                |       |       |       |       |       | 0.000# | -1.00 |
| 12) M          | 1,1-Dichloroethane    | 0.547 | 0.545 | 0.539 | 0.543 | 0.552 | 0.545  | 0.89  |
| 13) M          | 2,2-Dichloropropane   | 0.561 | 0.546 | 0.527 | 0.525 | 0.514 | 0.534  | 3.50  |
| 14) M          | cis-1,2-Dichloroethen | 0.263 | 0.262 | 0.253 | 0.251 | 0.256 | 0.257  | 2.11  |
| 15)            | 2-Butanone            |       |       |       |       |       | 0.000# | -1.00 |
| 16) M          | Bromochloromethane    | 0.089 | 0.088 | 0.089 | 0.089 | 0.094 | 0.090  | 2.82  |
| 17) M          | Chloroform            | 0.511 | 0.509 | 0.507 | 0.507 | 0.524 | 0.512  | 1.38  |
| 18) M          | 1,1,1-Trichloroethane | 0.573 | 0.566 | 0.561 | 0.564 | 0.567 | 0.566  | 0.77  |
| 19) M          | Carbon tetrachloride  | 0.537 | 0.520 | 0.520 | 0.526 | 0.526 | 0.526  | 1.35  |
| 20) M          | 1,1-Dichloropropene   | 0.498 | 0.506 | 0.486 | 0.494 | 0.488 | 0.495  | 1.59  |
| 21) M          | Benzene               | 0.874 | 0.885 | 0.858 | 0.866 | 0.870 | 0.871  | 1.14  |
| 22) M          | 1,2-Dichloroethane    | 0.206 | 0.210 | 0.214 | 0.214 | 0.225 | 0.214  | 3.36  |
| 23) M          | Trichloroethene       | 0.387 | 0.388 | 0.383 | 0.386 | 0.386 | 0.386  | 0.51  |
| 24) M          | 1,2-Dichloropropane   | 0.282 | 0.281 | 0.283 | 0.286 | 0.293 | 0.285  | 1.76  |
| 25) M          | Dibromomethane        | 0.112 | 0.113 | 0.112 | 0.117 | 0.124 | 0.115  | 4.28  |
| 26) M          | Bromodichloromethane  | 0.388 | 0.385 | 0.398 | 0.397 | 0.412 | 0.396  | 2.72  |
| 27) M          | cis-1,3-Dichloroprope | 0.338 | 0.335 | 0.343 | 0.340 | 0.356 | 0.342  | 2.38  |
| 28) M          | Toluene               | 0.646 | 0.605 | 0.610 | 0.613 | 0.619 | 0.619  | 2.61  |
| 29) M          | trans-1,3-Dichloropro | 0.226 | 0.229 | 0.236 | 0.239 | 0.252 | 0.236  | 4.31  |
| 30) M          | 1,1,2-Trichloroethane | 0.107 | 0.107 | 0.109 | 0.110 | 0.118 | 0.110  | 4.12  |
| 31) M          | Tetrachloroethene     | 0.395 | 0.386 | 0.380 | 0.388 | 0.389 | 0.388  | 1.40  |
| 32) M          | 1,3-Dichloropropane   | 0.217 | 0.213 | 0.221 | 0.218 | 0.226 | 0.219  | 2.24  |
| 33) M          | Dibromochloromethane  | 0.208 | 0.205 | 0.215 | 0.216 | 0.231 | 0.215  | 4.72  |
| 34) M          | 1,2-Dibromomethane    | 0.145 | 0.145 | 0.153 | 0.153 | 0.166 | 0.152  | 5.54  |
| 35) M          | Chlorobenzene         | 0.650 | 0.638 | 0.636 | 0.640 | 0.657 | 0.644  | 1.38  |
| 36) M          | 1,1,1,2-Tetrachloroet | 0.256 | 0.247 | 0.253 | 0.257 | 0.265 | 0.256  | 2.62  |
| 37) M          | Ethylbenzene          | 1.316 | 1.279 | 1.288 | 1.308 | 1.320 | 1.302  | 1.38  |
| 38) M          | Xylene (para & meta)  | 0.479 | 0.463 | 0.465 | 0.465 | 0.466 | 0.468  | 1.38  |
| 39) M          | Xylene (Ortho)        | 0.417 | 0.409 | 0.412 | 0.413 | 0.418 | 0.414  | 0.93  |
| 40) M          | Styrene               | 0.634 | 0.626 | 0.639 | 0.643 | 0.663 | 0.641  | 2.12  |
| 41) M          | Bromoform             | 0.098 | 0.099 | 0.107 | 0.106 | 0.117 | 0.105  | 7.26  |
| 42) M          | Isopropylbenzene      | 1.330 | 1.302 | 1.317 | 1.350 | 1.352 | 1.330  | 1.60  |
| 43) S          | 4-Bromofluorobenzene  | 0.498 | 0.480 | 0.493 | 0.500 | 0.522 | 0.499  | 3.05  |

(#) = Out of Range

VOA524.M

Fri May 26 16:06:32 1995

VOA

Page 1

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D  
 30 =C8240.D 40 =C8241.D

|       | Compound              | 4     | 10    | 20    | 30    | 40    | Avg   | %RSD  |
|-------|-----------------------|-------|-------|-------|-------|-------|-------|-------|
| 44) M | Bromobenzene          | 0.236 | 0.232 | 0.239 | 0.242 | 0.251 | 0.240 | 3.08  |
| 45) M | 1,1,2,2-Tetrachloroet | 0.110 | 0.112 | 0.121 | 0.120 | 0.127 | 0.118 | 6.04  |
| 46) M | 1,2,3-Trichloropropan | 0.143 | 0.138 | 0.144 | 0.141 | 0.150 | 0.143 | 2.93  |
| 47) M | n-Propylbenzene       | 1.736 | 1.684 | 1.719 | 1.754 | 1.761 | 1.731 | 1.79  |
| 48) M | 2-Chlorotoluene       | 0.967 | 0.923 | 0.956 | 0.968 | 0.988 | 0.960 | 2.50  |
| 49) M | 4-Chlorotoluene       | 1.153 | 1.113 | 1.108 | 1.151 | 1.176 | 1.140 | 2.54  |
| 50) M | 1,3,5-Trimethylbenzen | 1.107 | 1.066 | 1.095 | 1.117 | 1.122 | 1.101 | 2.04  |
| 51) M | tert-Butylbenzene     | 1.149 | 1.111 | 1.135 | 1.158 | 1.157 | 1.142 | 1.71  |
| 52) M | 1,2,4-Trimethylbenzen | 1.012 | 0.993 | 1.014 | 1.002 | 1.025 | 1.009 | 1.21  |
| 53) M | sec-Butylbenzene      | 1.707 | 1.634 | 1.688 | 1.722 | 1.715 | 1.693 | 2.10  |
| 54) M | 1,3-Dichlorobenzene   | 0.481 | 0.468 | 0.490 | 0.495 | 0.511 | 0.489 | 3.28  |
| 55) M | 4-Isopropyltoluene    | 1.257 | 1.228 | 1.267 | 1.280 | 1.290 | 1.264 | 1.88  |
| 56) M | 1,4-Dichlorobenzene   | 0.483 | 0.464 | 0.482 | 0.487 | 0.510 | 0.485 | 3.39  |
| 57) S | 1,2-Dichlorobenzene-d | 0.223 | 0.219 | 0.228 | 0.230 | 0.238 | 0.228 | 3.15  |
| 58) M | 1,2-Dichlorobenzene   | 0.371 | 0.351 | 0.359 | 0.366 | 0.374 | 0.364 | 2.53  |
| 59) M | n-Butylbenzene        | 1.362 | 1.297 | 1.353 | 1.381 | 1.382 | 1.355 | 2.55  |
| 60) M | 1,2-Dibromo-3-chlorop | 0.027 | 0.027 | 0.030 | 0.031 | 0.034 | 0.030 | 10.29 |
| 61) M | 1,2,4-Trichlorobenzen | 0.254 | 0.256 | 0.266 | 0.271 | 0.293 | 0.268 | 5.88  |
| 62) M | Hexachlorobutadiene   | 0.317 | 0.304 | 0.330 | 0.331 | 0.334 | 0.323 | 3.81  |
| 63) M | Naphthalene           | 0.219 | 0.220 | 0.225 | 0.233 | 0.262 | 0.232 | 7.66  |
| 64) M | 1,2,3-Trichlorobenzen | 0.183 | 0.175 | 0.184 | 0.186 | 0.207 | 0.187 | 6.31  |
| 65)   | Methyl-tert butyl eth | 0.289 | 0.286 | 0.292 | 0.288 | 0.306 | 0.292 | 2.82  |
| 66)   | tert-Butyl Alcohol    |       | 0.004 | 0.005 | 0.005 | 0.005 | 0.004 | 8.73  |

(#) = Out of Range

VOA524.M

Fri May 26 16:06:41 1995

VOA

Page 2

## Quantitation Report

037

Data File : d:\hpchem\1\data\c8237.d  
 Acq On : 26 May 95 10:35 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:22 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.84 | 96   | 695393   | 5.00 | ug/L  | -0.09    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 138448   | 2.12 | ug/L  | 42.31%    |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 62134    | 1.72 | ug/L  | 34.47%    |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units | Qvalue |
|-------------------------------|-------|------|----------|------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.28  | 85   | 227954   | 3.55 | ug/L  | 92     |
| 3) Chloromethane              | 3.65  | 50   | 126260   | 3.35 | ug/L  | 100    |
| 4) Vinyl chloride             | 3.86  | 62   | 145560   | 3.46 | ug/L  | 97     |
| 5) Bromomethane               | 4.54  | 94   | 107256   | 3.74 | ug/L  | 100    |
| 6) Chloroethane               | 4.76  | 64   | 91319    | 3.57 | ug/L  | 90     |
| 7) Trichlorofluoromethane     | 5.35  | 101  | 324396   | 3.90 | ug/L  | 91     |
| 8) 1,1-Dichloroethene         | 6.42  | 96   | 141941   | 3.68 | ug/L  | 98     |
| 9) Methylene chloride         | 7.41  | 84   | 319236   | 9.50 | ug/L  | 100    |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96   | 152530   | 3.73 | ug/L  | 94     |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 304419   | 3.74 | ug/L  | 95     |
| 13) 2,2-Dichloropropane       | 9.82  | 77   | 311983   | 4.42 | ug/L  | 99     |
| 14) cis-1,2-Dichloroethene    | 9.82  | 96   | 146539   | 3.80 | ug/L  | 99     |
| 16) Bromochloromethane        | 10.24 | 128  | 49545    | 3.27 | ug/L  | 88     |
| 17) Chloroform                | 10.40 | 83   | 284036   | 3.95 | ug/L  | 99     |
| 18) 1,1,1-Trichloroethane     | 10.73 | 97   | 318569   | 4.20 | ug/L  | 98     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 299000   | 4.01 | ug/L  | 97     |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 277299   | 3.91 | ug/L  | 96     |
| 21) Benzene                   | 11.35 | 78   | 486262   | 3.81 | ug/L  | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 114527   | 4.02 | ug/L  | 98     |
| 23) Trichloroethene           | 12.48 | 95   | 215417   | 3.81 | ug/L  | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 156823   | 3.58 | ug/L  | 99     |
| 25) Dibromomethane            | 13.02 | 93   | 62165    | 3.54 | ug/L  | 95     |
| 26) Bromodichloromethane      | 13.30 | 83   | 215761   | 3.85 | ug/L  | 95     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 187920   | 3.78 | ug/L  | 99     |
| 28) Toluene                   | 14.64 | 92   | 359379   | 4.19 | ug/L  | 98     |
| 29) trans-1,3-Dichloropropene | 14.99 | 75   | 125469   | 3.72 | ug/L  | 96     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 59496    | 3.61 | ug/L  | 98     |
| 31) Tetrachloroethene         | 15.60 | 166  | 219930   | 3.61 | ug/L  | 90     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 120535   | 3.72 | ug/L  | 100    |
| 33) Dibromochloromethane      | 15.99 | 129  | 115733   | 3.36 | ug/L  | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 80701    | 3.46 | ug/L  | 99     |
| 35) Chlorobenzene             | 17.07 | 112  | 361810   | 3.72 | ug/L  | 96     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 142326   | 3.50 | ug/L  | 95     |
| 37) Ethylbenzene              | 17.26 | 91   | 732369   | 4.06 | ug/L  | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 533017   | 7.95 | ug/L  | 92     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 231743   | 3.89 | ug/L  | 90     |
| 40) Styrene                   | 18.18 | 104  | 352838   | 3.78 | ug/L  | 87     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8237.d  
 Acq On : 26 May 95 10:35 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:22 1995

Vial: 2 038  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 54547    | 3.31 | ug/L   | 97     |
| 42) Isopropylbenzene           | 18.83 | 105  | 739665   | 3.93 | ug/L   | 89     |
| 44) Bromobenzene               | 19.38 | 156  | 131056   | 3.44 | ug/L # | 86     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 61247    | 3.65 | ug/L   | 98     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 79406    | 3.74 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.56 | 91   | 965762   | 4.01 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 538039   | 4.23 | ug/L   | 92     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 641340   | 4.20 | ug/L m | 96     |
| 50) 1,3,5-Trimethylbenzene     | 19.88 | 105  | 616118   | 4.04 | ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 639160   | 3.80 | ug/L   | 88     |
| 52) 1,2,4-Trimethylbenzene     | 20.57 | 105  | 562733   | 3.89 | ug/L   | 91     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 949602   | 3.96 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 267522   | 3.41 | ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 699174   | 3.73 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 268966   | 3.43 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 206476   | 3.45 | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.89 | 91   | 757856   | 3.95 | ug/L   | 95     |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 15013    | 3.81 | ug/L   | 81     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 141353   | 3.40 | ug/L   | 93     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 176270   | 4.13 | ug/L   | 97     |
| 63) Naphthalene                | 25.35 | 128  | 122077   | 3.12 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.82 | 180  | 101707   | 3.60 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 160639   | 4.38 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.72  | 59   | 2491     | 0.68 | ug/L m | 100    |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpcchem\1\data\c8238.d  
 Acq On : 26 May 95 11:17 am  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:59 1995

Vial: 3 039  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.84 | 96   | 770985   | 5.00 | ug/L  | -0.09     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95   | 370331   | 5.10 | ug/L  | 102.07%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 169129   | 4.23 | ug/L  | 84.62%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.28  | 85   | 650612   | 9.13  | ug/L   | 100    |
| 3) Chloromethane              | 3.64  | 50   | 383966   | 9.18  | ug/L   | 96     |
| 4) Vinyl chloride             | 3.87  | 62   | 423851   | 9.09  | ug/L   | 98     |
| 5) Bromomethane               | 4.52  | 94   | 303978   | 9.57  | ug/L   | 93     |
| 6) Chloroethane               | 4.76  | 64   | 264421   | 9.32  | ug/L   | 94     |
| 7) Trichlorofluoromethane     | 5.34  | 101  | 924458   | 10.04 | ug/L   | 100    |
| 8) 1,1-Dichloroethene         | 6.42  | 96   | 410654   | 9.60  | ug/L   | 96     |
| 9) Methylene chloride         | 7.41  | 84   | 542259   | 14.55 | ug/L m | 99     |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96   | 429522   | 9.48  | ug/L   | 100    |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 840489   | 9.32  | ug/L   | 97     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 841576   | 10.74 | ug/L   | 96     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 403406   | 9.42  | ug/L   | 98     |
| 16) Bromochloromethane        | 10.24 | 128  | 135650   | 8.08  | ug/L # | 88     |
| 17) Chloroform                | 10.40 | 83   | 785334   | 9.85  | ug/L   | 99     |
| 18) 1,1,1-Trichloroethane     | 10.73 | 97   | 873470   | 10.39 | ug/L   | 99     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 801421   | 9.70  | ug/L   | 100    |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 780145   | 9.93  | ug/L   | 96     |
| 21) Benzene                   | 11.35 | 78   | 1364187  | 9.64  | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 323971   | 10.26 | ug/L   | 99     |
| 23) Trichloroethene           | 12.48 | 95   | 597831   | 9.52  | ug/L   | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 432807   | 8.91  | ug/L   | 99     |
| 25) Dibromomethane            | 13.03 | 93   | 174304   | 8.95  | ug/L   | 99     |
| 26) Bromodichloromethane      | 13.29 | 83   | 593524   | 9.55  | ug/L   | 96     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 516054   | 9.37  | ug/L   | 96     |
| 28) Toluene                   | 14.64 | 92   | 932739   | 9.81  | ug/L   | 100    |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 353858   | 9.46  | ug/L   | 95     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 165554   | 9.05  | ug/L   | 98     |
| 31) Tetrachloroethene         | 15.61 | 166  | 594723   | 8.81  | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 328378   | 9.15  | ug/L   | 99     |
| 33) Dibromochloromethane      | 15.99 | 129  | 315396   | 8.25  | ug/L   | 98     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 223316   | 8.62  | ug/L   | 93     |
| 35) Chlorobenzene             | 17.07 | 112  | 983363   | 9.11  | ug/L   | 94     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 380569   | 8.45  | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 1971808  | 9.86  | ug/L   | 99     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 1428718  | 19.21 | ug/L   | 96     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 630244   | 9.53  | ug/L   | 96     |
| 40) Styrene                   | 18.19 | 104  | 965656   | 9.34  | ug/L   | 94     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8238.d  
Acq On : 26 May 95 11:17 am  
Sample : 10 PPB STANDARD  
Misc :  
Quant Time: May 26 15:59 1995

Vial: 3 040  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 153005   | 8.38  | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 2008385  | 9.63  | ug/L m | 45     |
| 44) Bromobenzene               | 19.38 | 156  | 357587   | 8.46  | ug/L   | 94     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 171968   | 9.24  | ug/L   | 97     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 213285   | 9.05  | ug/L   | 98     |
| 47) n-Propylbenzene            | 19.57 | 91   | 2596029  | 9.72  | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 1422833  | 10.08 | ug/L   | 95     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 1716410  | 10.14 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 1643038  | 9.71  | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 1713787  | 9.19  | ug/L   | 90     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 1530473  | 9.54  | ug/L   | 94     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 2518935  | 9.48  | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 722076   | 8.30  | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 1893823  | 9.12  | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 715067   | 8.22  | ug/L m | 94     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 541575   | 8.16  | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.89 | 91   | 2000405  | 9.41  | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 41781    | 9.56  | ug/L   | 95     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 394479   | 8.55  | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 469504   | 9.93  | ug/L   | 98     |
| 63) Naphthalene                | 25.34 | 128  | 339645   | 7.82  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 269640   | 8.61  | ug/L   | 95     |
| 65) Methyl-tert butyl ether    | 7.99  | 73   | 440628   | 10.83 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.72  | 59   | 12035    | 2.96  | ug/L   | 100    |

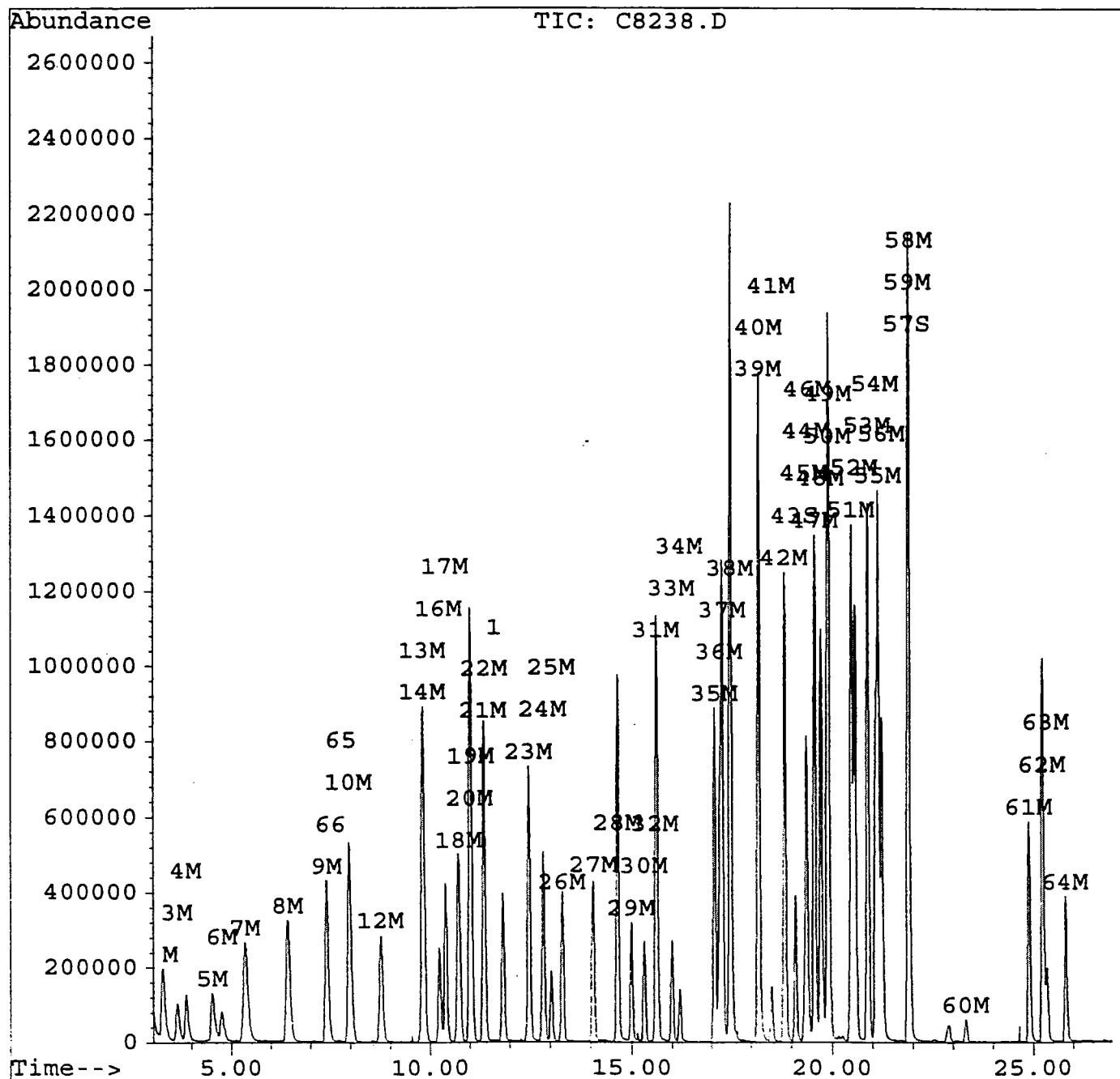
(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8238.d  
Acq On : 26 May 95 11:17 am  
Sample : 10 PPB STANDARD  
Misc :  
Quant Time: May 26 15:59 1995

Vial: 3 041  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8239.d  
 Acq On : 26 May 95 11:51 am  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:53 1995

Vial: 4 042  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.84 | 96   | 715239   | 5.00 | ug/L  | -0.09     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 705539   | 10.48 | ug/L  | 209.62%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 325789   | 8.79  | ug/L  | 175.71%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 1105977  | 16.74 | ug/L   | 99     |
| 3) Chloromethane              | 3.66  | 50   | 650013   | 16.75 | ug/L   | 99     |
| 4) Vinyl chloride             | 3.89  | 62   | 740002   | 17.11 | ug/L   | 100    |
| 5) Bromomethane               | 4.52  | 94   | 485674   | 16.48 | ug/L   | 93     |
| 6) Chloroethane               | 4.74  | 64   | 459311   | 17.45 | ug/L   | 92     |
| 7) Trichlorofluoromethane     | 5.35  | 101  | 1674654  | 19.60 | ug/L   | 95     |
| 8) 1,1-Dichloroethene         | 6.43  | 96   | 738739   | 18.61 | ug/L   | 98     |
| 9) Methylene chloride         | 7.40  | 84   | 775969   | 22.45 | ug/L   | 96     |
| 10) trans-1,2-Dichloroethene  | 7.98  | 96   | 771488   | 18.36 | ug/L   | 100    |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 1541660  | 18.42 | ug/L   | 99     |
| 13) 2,2-Dichloropropane       | 9.84  | 77   | 1507599  | 20.74 | ug/L   | 95     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 723609   | 18.22 | ug/L   | 95     |
| 16) Bromochloromethane        | 10.24 | 128  | 255840   | 16.43 | ug/L # | 87     |
| 17) Chloroform                | 10.40 | 83   | 1450799  | 19.62 | ug/L m | 0      |
| 18) 1,1,1-Trichloroethane     | 10.72 | 97   | 1604334  | 20.57 | ug/L m | 0      |
| 19) Carbon tetrachloride      | 11.03 | 117  | 1488607  | 19.42 | ug/L   | 99     |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 1391827  | 19.09 | ug/L   | 99     |
| 21) Benzene                   | 11.36 | 78   | 2454890  | 18.69 | ug/L   | 98     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 611769   | 20.89 | ug/L   | 98     |
| 23) Trichloroethene           | 12.48 | 95   | 1094910  | 18.80 | ug/L   | 90     |
| 24) 1,2-Dichloropropane       | 12.84 | 63   | 809803   | 17.96 | ug/L   | 99     |
| 25) Dibromomethane            | 13.03 | 93   | 321601   | 17.80 | ug/L   | 98     |
| 26) Bromodichloromethane      | 13.30 | 83   | 1137821  | 19.73 | ug/L   | 96     |
| 27) cis-1,3-Dichloropropene   | 14.05 | 75   | 981011   | 19.20 | ug/L   | 95     |
| 28) Toluene                   | 14.64 | 92   | 1745202  | 19.79 | ug/L   | 98     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 675693   | 19.48 | ug/L m | 53     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 312764   | 18.44 | ug/L   | 95     |
| 31) Tetrachloroethene         | 15.61 | 166  | 1088014  | 17.38 | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.59 | 76   | 630863   | 18.95 | ug/L   | 96     |
| 33) Dibromochloromethane      | 16.00 | 129  | 614117   | 17.31 | ug/L   | 97     |
| 34) 1,2-Dibromomethane        | 16.20 | 107  | 438464   | 18.25 | ug/L   | 97     |
| 35) Chlorobenzene             | 17.06 | 112  | 1819994  | 18.18 | ug/L   | 94     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 725017   | 17.35 | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 3685485  | 19.86 | ug/L   | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 2660124  | 38.56 | ug/L   | 90     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 1177400  | 19.20 | ug/L   | 88     |
| 40) Styrene                   | 18.19 | 104  | 1828264  | 19.06 | ug/L   | 91     |

(#) = qualifier out of range (m) = manual integration



## Quantitation Report

Data File : d:\hpchem\1\data\c8239.d  
Acq On : 26 May 95 11:51 am  
Sample : 20 PPB STANDARD  
Misc :  
Quant Time: May 26 15:53 1995

Vial: 4 043  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.50 | 173  | 304765   | 18.00 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 3768696  | 19.48 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 682381   | 17.40 | ug/L # | 89     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 345604   | 20.02 | ug/L   | 97     |
| 46) 1,2,3-Trichloropropane     | 19.39 | 75   | 411958   | 18.84 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.57 | 91   | 4919179  | 19.86 | ug/L   | 98     |
| 48) 2-Chlorotoluene            | 19.72 | 91   | 2734593  | 20.88 | ug/L   | 93     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 3170150  | 20.18 | ug/L   | 92     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 3133027  | 19.95 | ug/L   | 97     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 3247650  | 18.76 | ug/L   | 89     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 2901790  | 19.49 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 4827977  | 19.58 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 1403188  | 17.40 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 3624786  | 18.82 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 1378003  | 17.08 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 1028245  | 16.71 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.89 | 91   | 3870404  | 19.62 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 87006    | 21.47 | ug/L   | 87     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 759956   | 17.76 | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 943039   | 21.49 | ug/L   | 97     |
| 63) Naphthalene                | 25.33 | 128  | 643210   | 15.97 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 527272   | 18.16 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 836258   | 22.17 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.73  | 59   | 26154    | 6.93  | ug/L   | 100    |

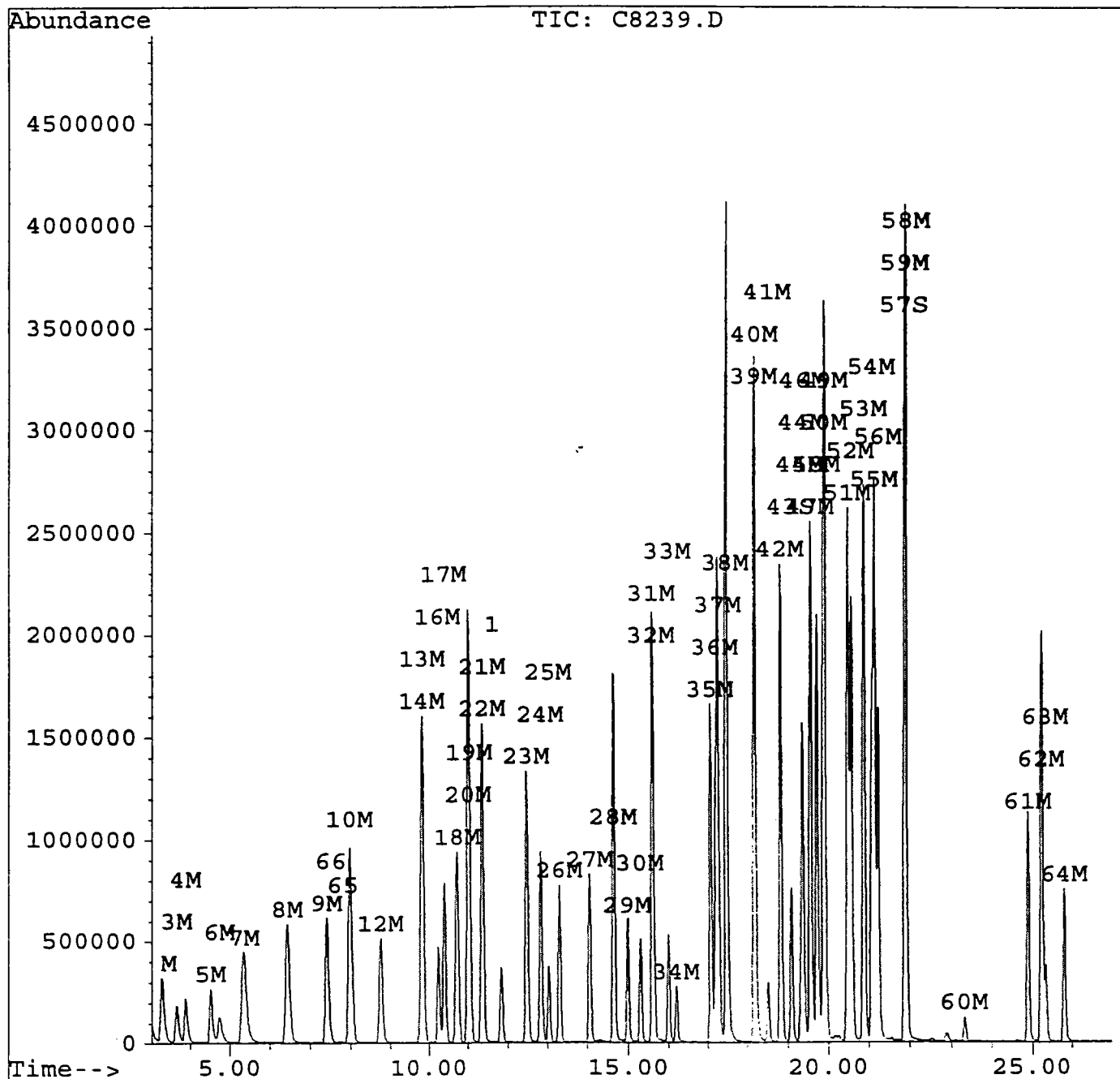
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8239.d  
 Acq On : 26 May 95 11:51 am  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:53 1995

Vial: 4 **044**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8240.d  
 Acq On : 26 May 95 12:26 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:31 1995

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

045

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.83 | 96   | 707858   | 5.00 | ug/L  | -0.10    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95   | 1062620  | 15.95 | ug/L  | 319.00%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 489408   | 13.34 | ug/L  | 266.70%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 1634270  | 24.99 | ug/L  | 98     |
| 3) Chloromethane              | 3.66  | 50   | 984170   | 25.63 | ug/L  | 100    |
| 4) Vinyl chloride             | 3.88  | 62   | 1106079  | 25.84 | ug/L  | 100    |
| 5) Bromomethane               | 4.50  | 94   | 702972   | 24.10 | ug/L  | 92     |
| 6) Chloroethane               | 4.72  | 64   | 647108   | 24.84 | ug/L  | 99     |
| 7) Trichlorofluoromethane     | 5.32  | 101  | 2502534  | 29.59 | ug/L  | 99     |
| 8) 1,1-Dichloroethene         | 6.42  | 96   | 1092314  | 27.81 | ug/L  | 94     |
| 9) Methylene chloride         | 7.40  | 84   | 1020488  | 29.83 | ug/L  | 97     |
| 10) trans-1,2-Dichloroethene  | 7.96  | 96   | 1150685  | 27.67 | ug/L  | 95     |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 2307375  | 27.86 | ug/L  | 98     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 2228288  | 30.98 | ug/L  | 97     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 1065313  | 27.11 | ug/L  | 93     |
| 16) Bromochloromethane        | 10.24 | 128  | 379255   | 24.61 | ug/L  | # 82   |
| 17) Chloroform                | 10.40 | 83   | 2154764  | 29.45 | ug/L  | 99     |
| 18) 1,1,1-Trichloroethane     | 10.72 | 97   | 2396695  | 31.05 | ug/L  | 99     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 2233730  | 29.45 | ug/L  | 100    |
| 20) 1,1-Dichloropropene       | 11.02 | 75   | 2098843  | 29.09 | ug/L  | 98     |
| 21) Benzene                   | 11.36 | 78   | 3677001  | 28.29 | ug/L  | 99     |
| 22) 1,2-Dichloroethane        | 11.37 | 62   | 906868   | 31.29 | ug/L  | 98     |
| 23) Trichloroethene           | 12.48 | 95   | 1640085  | 28.46 | ug/L  | 91     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 1214345  | 27.22 | ug/L  | 100    |
| 25) Dibromomethane            | 13.03 | 93   | 494826   | 27.67 | ug/L  | 97     |
| 26) Bromodichloromethane      | 13.30 | 83   | 1685621  | 29.53 | ug/L  | m 66   |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 1443936  | 28.55 | ug/L  | m 0    |
| 28) Toluene                   | 14.64 | 92   | 2604382  | 29.84 | ug/L  | 97     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 1013926  | 29.53 | ug/L  | 98     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 468063   | 27.88 | ug/L  | 99     |
| 31) Tetrachloroethene         | 15.60 | 166  | 1648174  | 26.60 | ug/L  | 97     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 925183   | 28.08 | ug/L  | 100    |
| 33) Dibromochloromethane      | 16.00 | 129  | 918828   | 26.18 | ug/L  | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 650390   | 27.36 | ug/L  | 94     |
| 35) Chlorobenzene             | 17.07 | 112  | 2720037  | 27.45 | ug/L  | m 0    |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 1093624  | 26.44 | ug/L  | m 0    |
| 37) Ethylbenzene              | 17.26 | 91   | 5555166  | 30.24 | ug/L  | 97     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 3951154  | 57.87 | ug/L  | 91     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 1755270  | 28.92 | ug/L  | 92     |
| 40) Styrene                   | 18.18 | 104  | 2731131  | 28.76 | ug/L  | 87     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpcchem\1\data\c8240.d  
Acq On : 26 May 95 12:26 pm  
Sample : 30 PPB STANDARD  
Misc :  
Quant Time: May 26 15:31 1995

Vial: 5 046  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.50 | 173  | 450885   | 26.90 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 5734485  | 29.95 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 1026534  | 26.45 | ug/L # | 88     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.33 | 83   | 508409   | 29.75 | ug/L m | 0      |
| 46) 1,2,3-Trichloropropane     | 19.39 | 75   | 599222   | 27.69 | ug/L # | 57     |
| 47) n-Propylbenzene            | 19.57 | 91   | 7449042  | 30.39 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 4112354  | 31.73 | ug/L   | 93     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 4889333  | 31.45 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.88 | 105  | 4744702  | 30.53 | ug/L   | 95     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 4918253  | 28.71 | ug/L   | 86     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 4256753  | 28.89 | ug/L   | 95     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 7312067  | 29.96 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 2102035  | 26.33 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 5435557  | 28.52 | ug/L   | 94     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 2067871  | 25.90 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 1555987  | 25.55 | ug/L m | 44     |
| 59) n-Butylbenzene             | 21.89 | 91   | 5865257  | 30.04 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 130755   | 32.60 | ug/L   | 85     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 1151444  | 27.19 | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.22 | 225  | 1405948  | 32.37 | ug/L   | 97     |
| 63) Naphthalene                | 25.34 | 128  | 988735   | 24.80 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 788297   | 27.43 | ug/L   | 97     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 1221403  | 32.71 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.76  | 59   | 39667    | 10.62 | ug/L   | 100    |

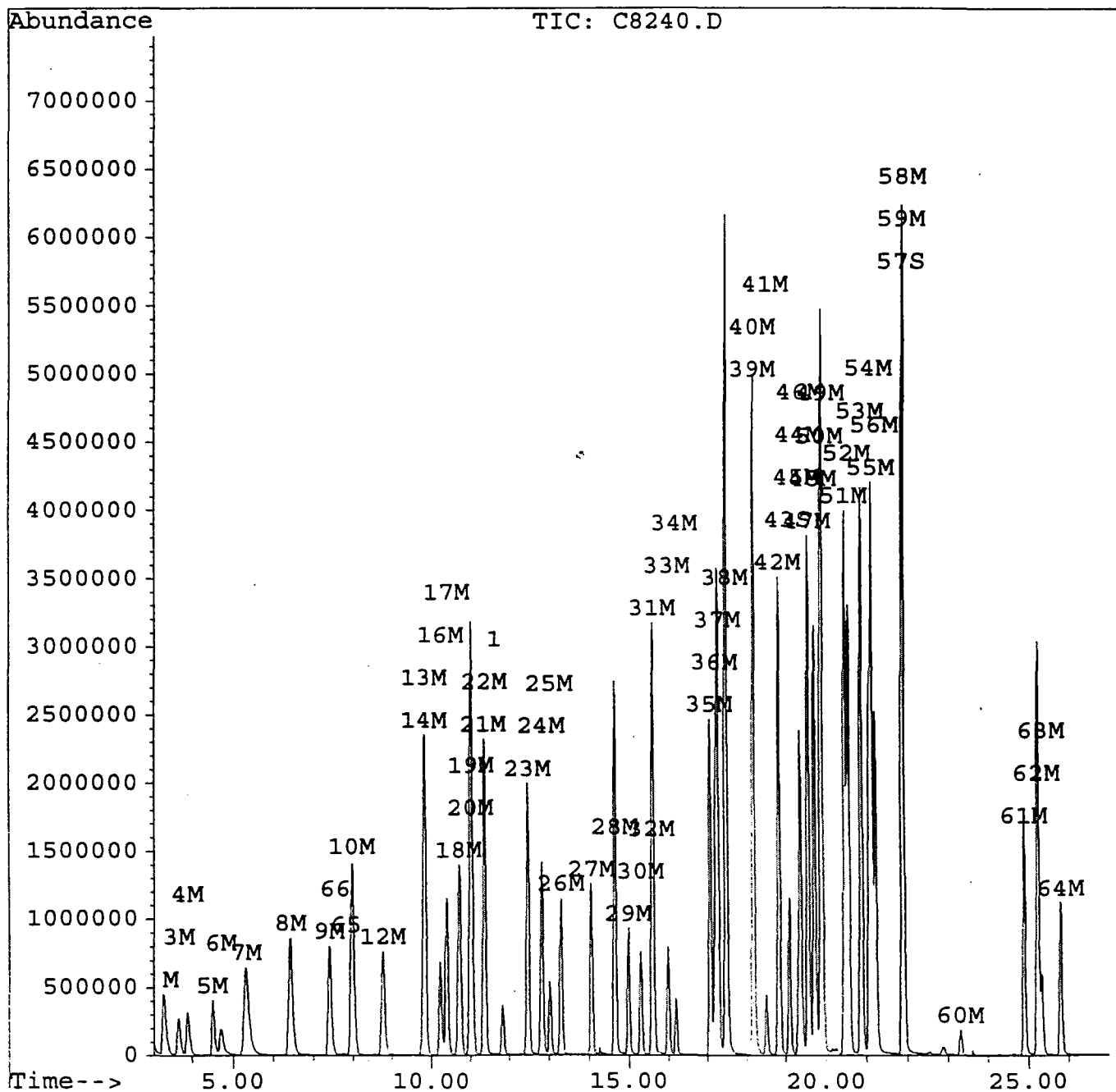
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8240.d  
 Acq On : 26 May 95 12:26 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:31 1995

Vial: 5 **047**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8241.d  
 Acq On : 26 May 95 1:00 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:35 1995

Vial: 6 048  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.83 | 96   | 677208   | 5.00 | ug/L  | -0.10    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 1414597  | 22.19 | ug/L  | 443.88%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 645268   | 18.38 | ug/L  | 367.55%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 2050828  | 32.77 | ug/L   | 99     |
| 3) Chloromethane              | 3.66  | 50   | 1255453  | 34.18 | ug/L   | 98     |
| 4) Vinyl chloride             | 3.88  | 62   | 1403518  | 34.27 | ug/L   | 99     |
| 5) Bromomethane               | 4.50  | 94   | 887089   | 31.79 | ug/L   | 95     |
| 6) Chloroethane               | 4.68  | 64   | 660776   | 26.52 | ug/L   | 99     |
| 7) Trichlorofluoromethane     | 5.29  | 101  | 3146458  | 38.89 | ug/L   | 98     |
| 8) 1,1-Dichloroethene         | 6.40  | 96   | 1373656  | 36.56 | ug/L   | 94     |
| 9) Methylene chloride         | 7.39  | 84   | 1256580  | 38.40 | ug/L   | 93     |
| 10) trans-1,2-Dichloroethene  | 7.96  | 96   | 1461616  | 36.74 | ug/L m | 0      |
| 12) 1,1-Dichloroethane        | 8.74  | 63   | 2990291  | 37.74 | ug/L m | 0      |
| 13) 2,2-Dichloropropane       | 9.82  | 77   | 2784319  | 40.46 | ug/L   | 96     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 1387660  | 36.91 | ug/L   | 95     |
| 16) Bromochloromethane        | 10.23 | 128  | 511825   | 34.71 | ug/L # | 88     |
| 17) Chloroform                | 10.39 | 83   | 2839115  | 40.56 | ug/L   | 100    |
| 18) 1,1,1-Trichloroethane     | 10.71 | 97   | 3074057  | 41.62 | ug/L   | 100    |
| 19) Carbon tetrachloride      | 11.02 | 117  | 2848789  | 39.26 | ug/L   | 100    |
| 20) 1,1-Dichloropropene       | 11.00 | 75   | 2646146  | 38.33 | ug/L   | 97     |
| 21) Benzene                   | 11.35 | 78   | 4715775  | 37.92 | ug/L   | 98     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 1219926  | 43.99 | ug/L   | 100    |
| 23) Trichloroethene           | 12.48 | 95   | 2092020  | 37.94 | ug/L   | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 1588792  | 37.22 | ug/L   | 100    |
| 25) Dibromomethane            | 13.02 | 93   | 670030   | 39.16 | ug/L   | 97     |
| 26) Bromodichloromethane      | 13.30 | 83   | 2234626  | 40.92 | ug/L m | 85     |
| 27) cis-1,3-Dichloropropene   | 14.05 | 75   | 1927356  | 39.84 | ug/L   | 97     |
| 28) Toluene                   | 14.64 | 92   | 3353871  | 40.17 | ug/L   | 99     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 1365218  | 41.56 | ug/L   | 97     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 640167   | 39.86 | ug/L   | 96     |
| 31) Tetrachloroethene         | 15.60 | 166  | 2106507  | 35.54 | ug/L   | 98     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 1225150  | 38.86 | ug/L   | 98     |
| 33) Dibromochloromethane      | 15.99 | 129  | 1250833  | 37.25 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 896884   | 39.43 | ug/L   | 97     |
| 35) Chlorobenzene             | 17.07 | 112  | 3558221  | 37.53 | ug/L m | 0      |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 1437465  | 36.33 | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 7148780  | 40.68 | ug/L   | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 5046126  | 77.25 | ug/L   | 90     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 2266726  | 39.03 | ug/L   | 90     |
| 40) Styrene                   | 18.19 | 104  | 3590160  | 39.52 | ug/L   | 90     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8241.d  
Acq On : 26 May 95 1:00 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: May 26 15:35 1995

Vial: 6 049  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 635283   | 39.62 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 7325849  | 39.99 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 1361555  | 36.68 | ug/L # | 90     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 689989   | 42.21 | ug/L m | 0      |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 810580   | 39.16 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.57 | 91   | 9540387  | 40.68 | ug/L   | 98     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 5352127  | 43.16 | ug/L   | 92     |
| 49) 4-Chlorotoluene            | 19.92 | 91   | 6372870  | 42.85 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 6077505  | 40.88 | ug/L   | 95     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 6270177  | 38.26 | ug/L   | 87     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 5551247  | 39.38 | ug/L   | 93     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 9291157  | 39.79 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 2769985  | 36.27 | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 6986951  | 38.31 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.08 | 146  | 2761726  | 36.15 | ug/L   | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 2026169  | 34.77 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.89 | 91   | 7484823  | 40.07 | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 186592   | 48.63 | ug/L   | 86     |
| 61) 1,2,4-Trichlorobenzene     | 24.88 | 180  | 1588732  | 39.22 | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 1808777  | 43.53 | ug/L   | 98     |
| 63) Naphthalene                | 25.32 | 128  | 1420685  | 37.25 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 1119071  | 40.70 | ug/L   | 100    |
| 65) Methyl-tert butyl ether    | 8.00  | 73   | 1658962  | 46.44 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.77  | 59   | 51615    | 14.45 | ug/L   | 100    |

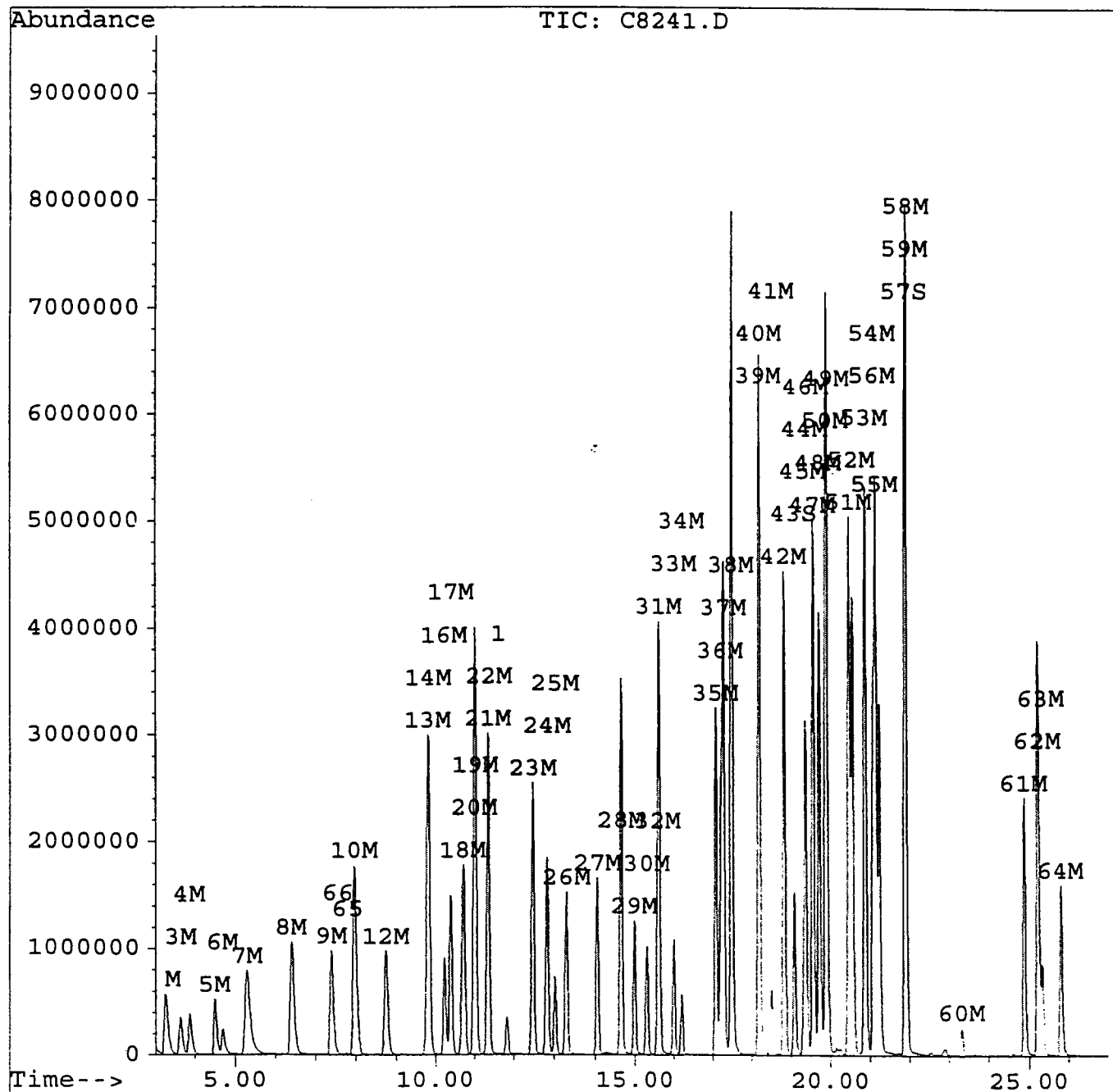
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8241.d  
 Acq On : 26 May 95 1:00 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:35 1995

Vial: 6 050  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration





5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

051

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: C8326.D BFB Injection Date: 6/2/95  
Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1424  
GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | %RELATIVE ABUNDANCE |
|-----|------------------------------------|---------------------|
| 50  | 8.0 - 40.0% of mass 95             | 21.6                |
| 75  | 30.0 - 66.0% of mass 95            | 51.5                |
| 95  | Base peak, 100% relative abundance | 100.0               |
| 96  | 5.0 - 9.0% of mass 95              | 6.7                 |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 )1        |
| 174 | 50.0 - 120.0% of mass 95           | 54.0                |
| 175 | 4.0 - 9.0% of mass 174             | 3.3 ( 6.2 )1        |
| 176 | 93.0 - 101.0% of mass 174          | 52.2 ( 96.7 )1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.6 ( 6.8 )2        |

1-Value is % mass 174

2-Value is % mass 176

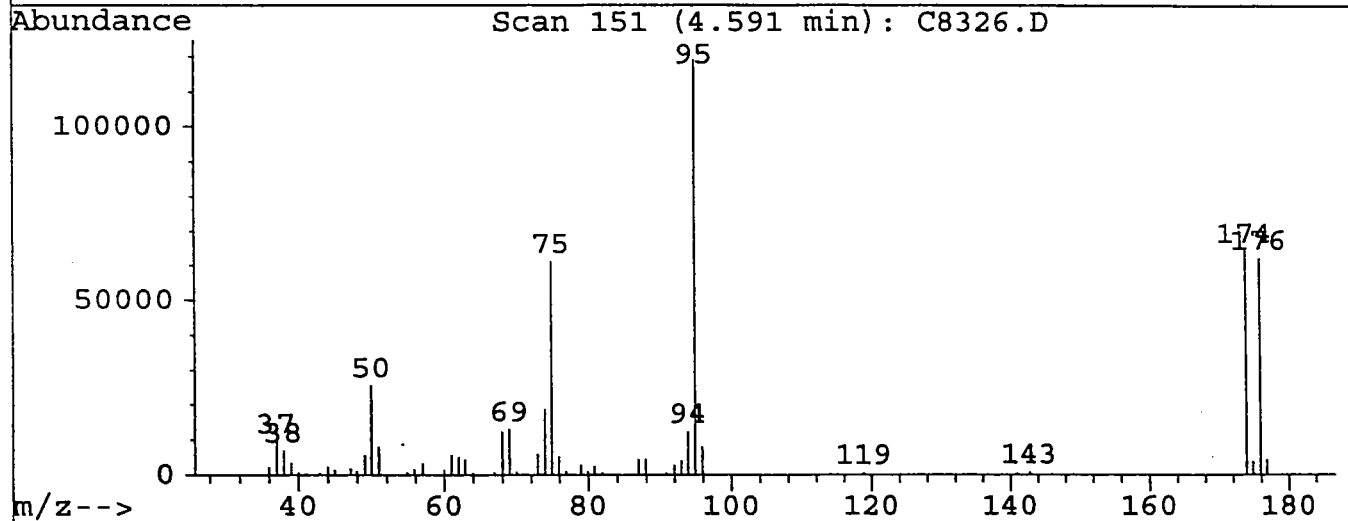
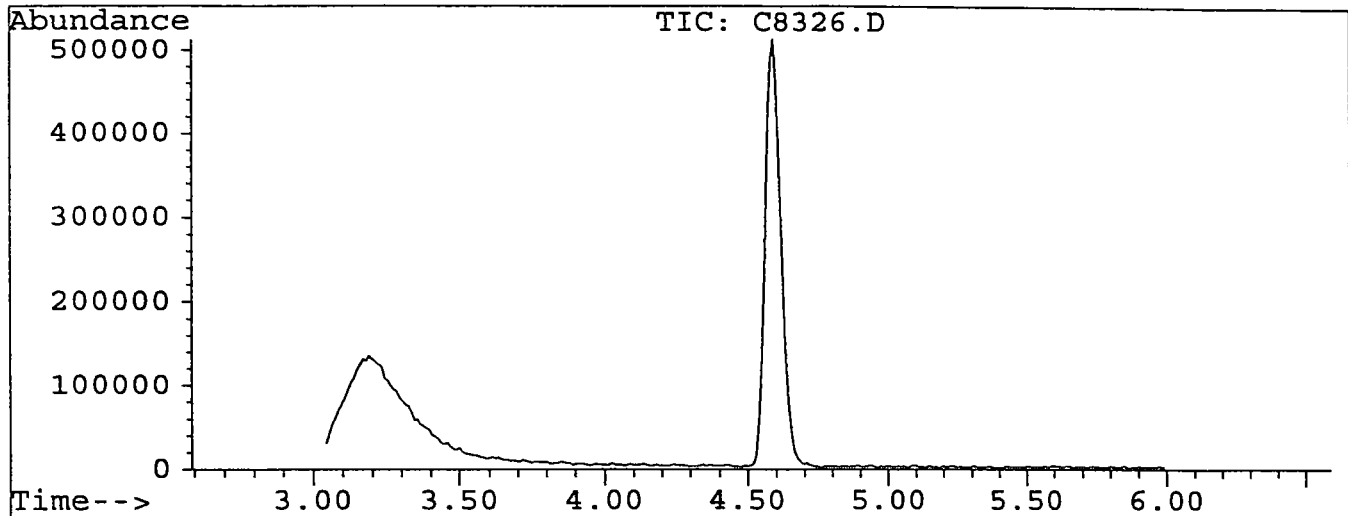
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | VSTD010    | 10 STND       | C8327.D     | 6/2/95        | 1438          |
| 02 | 1PPB STD   | 1PPB STD      | C8328.D     | 6/2/95        | 1514          |
| 03 | VBLK01     | M. BLANK      | C8329.D     | 6/2/95        | 1550          |
| 04 | 9523339V   | 9523339V      | C8330.D     | 6/2/95        | 1626          |
| 05 | 9523340V   | 9523340V      | C8331.D     | 6/2/95        | 1703          |
| 06 | 9523341V   | 9523341V      | C8332.D     | 6/2/95        | 1739          |
| 07 | 9523342V   | 9523342V      | C8333.D     | 6/2/95        | 1817          |
| 08 | 9523343V   | 9523343V      | C8334.D     | 6/2/95        | 1853          |
| 09 | 9523163V   | 9523163V      | C8335.D     | 6/2/95        | 1929          |
| 10 | 9523167V   | 9523167V      | C8336.D     | 6/2/95        | 2004          |
| 11 | 9523166V   | 9523166V      | C8337.D     | 6/2/95        | 2040          |
| 12 | 9523343MS  | 23343MS       | C8338.D     | 6/2/95        | 2115          |
| 13 | 9523343MSD | 23343MSD      | C8339.D     | 6/2/95        | 2150          |
| 14 | 10PPBQCS   | 10PPBQCS      | C8340.D     | 6/2/95        | 2224          |
| 15 |            |               |             |               |               |
| 16 |            |               |             |               |               |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |

Data File : D:\HPCHEM\1\DATA\C8326.D  
 Acq On : 2 Jun 95 2:24 pm  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 151

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 21.6      | 25664   | PASS             |
| 75          | 95           | 30           | 60           | 51.5      | 61280   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 119064  | PASS             |
| 96          | 95           | 5            | 9            | 6.7       | 8035    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 54.0      | 64304   | PASS             |
| 175         | 174          | 5            | 9            | 6.2       | 3986    | PASS             |
| 176         | 174          | 95           | 101          | 96.7      | 62160   | PASS             |
| 177         | 176          | 5            | 9            | 6.8       | 4228    | PASS             |

Scan 151 (4.591 min): C8326.D

BFB TUNE

053

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.00 | 2197   | 49.05 | 5823   | 66.95 | 698    | 80.80  | 2447   |
| 37.00 | 9510   | 49.95 | 25664  | 68.05 | 12370  | 81.90  | 588    |
| 38.00 | 7050   | 50.95 | 8205   | 69.05 | 12960  | 86.90  | 4512   |
| 39.00 | 3463   | 54.85 | 746    | 70.05 | 1017   | 87.95  | 4569   |
| 40.00 | 810    | 55.85 | 1680   | 72.95 | 6031   | 90.85  | 578    |
| 41.00 | 531    | 57.00 | 3447   | 73.95 | 18848  | 91.95  | 2776   |
| 42.90 | 532    | 60.00 | 1515   | 74.95 | 61280  | 92.95  | 4108   |
| 44.00 | 2522   | 61.00 | 5803   | 75.95 | 5237   | 93.95  | 12292  |
| 44.90 | 1537   | 62.00 | 5273   | 76.95 | 1207   | 94.95  | 119064 |
| 47.05 | 1979   | 62.90 | 4419   | 78.90 | 3035   | 95.95  | 8035   |
| 47.95 | 1137   | 64.00 | 533    | 79.90 | 971    | 118.85 | 671    |

Scan 151 (4.591 min): C8326.D

BFB TUNE

| m/z    | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|--------|--------|-----|--------|-----|--------|-----|--------|
| 140.90 | 632    |     |        |     |        |     |        |
| 142.80 | 775    |     |        |     |        |     |        |
| 173.95 | 64304  |     |        |     |        |     |        |
| 174.85 | 3986   |     |        |     |        |     |        |
| 175.95 | 62160  |     |        |     |        |     |        |
| 176.85 | 4228   |     |        |     |        |     |        |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

054

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/2/95 Time: 1438

Lab File ID: C8327.D Init. Calib. Date(s): 5/26/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

| COMPOUND                  | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|---------------------------|-------|-------|------------|-------|-----------|
| Dichlorodifluoromethane   | 0.396 | 0.380 |            | 4.0   | 30.0      |
| Chloromethane             | 0.233 | 0.232 |            | 0.4   | 30.0      |
| Vinyl chloride            | 0.263 | 0.264 |            | -0.4  | 30.0      |
| Bromomethane              | 0.178 | 0.192 |            | -7.9  | 30.0      |
| Chloroethane              | 0.154 | 0.167 |            | -8.4  | 30.0      |
| Trichlorofluoromethane    | 0.588 | 0.573 |            | 2.6   | 30.0      |
| 1,1-Dichloroethene        | 0.258 | 0.256 |            | 0.8   | 30.0      |
| Methylene chloride        | 0.274 | 0.320 |            | -16.8 | 30.0      |
| trans-1,2-Dichloroethene  | 0.273 | 0.275 |            | -0.7  | 30.0      |
| 1,1-Dichloroethane        | 0.545 | 0.556 |            | -2.0  | 30.0      |
| 2,2-Dichloropropane       | 0.534 | 0.534 |            | 0.0   | 30.0      |
| cis-1,2-Dichloroethene    | 0.257 | 0.253 |            | 1.6   | 30.0      |
| Bromochloromethane        | 0.090 | 0.082 |            | 8.9   | 30.0      |
| Chloroform                | 0.512 | 0.502 |            | 2.0   | 30.0      |
| 1,1,1-Trichloroethane     | 0.566 | 0.553 |            | 2.3   | 30.0      |
| Carbon tetrachloride      | 0.526 | 0.494 |            | 6.1   | 30.0      |
| 1,1-Dichloropropene       | 0.495 | 0.499 |            | -0.8  | 30.0      |
| Benzene                   | 0.871 | 0.866 |            | 0.6   | 30.0      |
| 1,2-Dichloroethane        | 0.214 | 0.200 |            | 6.5   | 30.0      |
| Trichloroethene           | 0.386 | 0.376 |            | 2.6   | 30.0      |
| 1,2-Dichloropropane       | 0.285 | 0.286 |            | -0.4  | 30.0      |
| Dibromomethane            | 0.115 | 0.109 |            | 5.2   | 30.0      |
| Bromodichloromethane      | 0.396 | 0.380 |            | 4.0   | 30.0      |
| cis-1,3-Dichloropropene   | 0.342 | 0.328 |            | 4.1   | 30.0      |
| Toluene                   | 0.619 | 0.623 |            | -0.6  | 30.0      |
| trans-1,3-Dichloropropene | 0.236 | 0.227 |            | 3.8   | 30.0      |
| 1,1,2-Trichloroethane     | 0.110 | 0.105 |            | 4.5   | 30.0      |
| Tetrachloroethene         | 0.388 | 0.364 |            | 6.2   | 30.0      |
| 1,3-Dichloropropane       | 0.219 | 0.212 |            | 3.2   | 30.0      |
| Dibromochloromethane      | 0.215 | 0.197 |            | 8.4   | 30.0      |
| 1,2-Dibromomethane        | 0.152 | 0.144 |            | 5.3   | 30.0      |
| Chlorobenzene             | 0.644 | 0.620 |            | 3.7   | 30.0      |
| 1,1,1,2-Tetrachloroethane | 0.256 | 0.240 |            | 6.3   | 30.0      |
| Ethylbenzene              | 1.302 | 1.285 |            | 1.3   | 30.0      |
| Xylene (para & meta)      | 0.468 | 0.461 |            | 1.5   | 30.0      |
| Xylene (Ortho)            | 0.414 | 0.402 |            | 2.9   | 30.0      |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

055

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_  
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/2/95  
 Lab File ID: C8327.D Init. Calib. Date(s): 5/26/95  
 Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_  
 GC Column: DB-624 X 7 ID: 0.53 (mm)

Group: \_\_\_\_\_  
 Time: 1438

| COMPOUND                    | RRF   | RRF10 | MIN RRF | %D   | MAX %D |
|-----------------------------|-------|-------|---------|------|--------|
| Styrene                     | 0.641 | 0.610 |         | 4.8  | 30.0   |
| Bromoform                   | 0.105 | 0.094 |         | 10.5 | 30.0   |
| Isopropylbenzene            | 1.330 | 1.288 |         | 3.2  | 30.0   |
| Bromobenzene                | 0.240 | 0.224 |         | 6.7  | 30.0   |
| 1,1,2,2-Tetrachloroethane   | 0.118 | 0.120 |         | -1.7 | 30.0   |
| 1,2,3-Trichloropropane      | 0.143 | 0.134 |         | 6.3  | 30.0   |
| n-Propylbenzene             | 1.731 | 1.721 |         | 0.6  | 30.0   |
| 2-Chlorotoluene             | 0.960 | 0.928 |         | 3.3  | 30.0   |
| 4-Chlorotoluene             | 1.140 | 1.086 |         | 4.7  | 30.0   |
| 1,3,5-Trimethylbenzene      | 1.101 | 1.070 |         | 2.8  | 30.0   |
| tert-Butylbenzene           | 1.142 | 1.106 |         | 3.2  | 30.0   |
| 1,2,4-Trimethylbenzene      | 1.009 | 0.994 |         | 1.5  | 30.0   |
| sec-Butylbenzene            | 1.693 | 1.641 |         | 3.1  | 30.0   |
| 1,3-Dichlorobenzene         | 0.489 | 0.456 |         | 6.7  | 30.0   |
| 4-Isopropyltoluene          | 1.264 | 1.234 |         | 2.4  | 30.0   |
| 1,4-Dichlorobenzene         | 0.485 | 0.442 |         | 8.9  | 30.0   |
| 1,2-Dichlorobenzene         | 0.364 | 0.339 |         | 6.9  | 30.0   |
| n-Butylbenzene              | 1.355 | 1.360 |         | -0.4 | 30.0   |
| 1,2-Dibromo-3-chloropropane | 0.030 | 0.028 |         | 6.7  | 30.0   |
| 1,2,4-Trichlorobenzene      | 0.268 | 0.237 |         | 11.6 | 30.0   |
| Hexachlorobutadiene         | 0.323 | 0.287 |         | 11.1 | 30.0   |
| Naphthalene                 | 0.232 | 0.203 |         | 12.5 | 30.0   |
| 1,2,3-Trichlorobenzene      | 0.187 | 0.170 |         | 9.1  | 30.0   |
| 4-Bromofluorobenzene        | 0.499 | 0.488 |         | 2.2  | 30.0   |
| 1,2-Dichlorobenzene-d4      | 0.228 | 0.224 |         | 1.8  | 30.0   |

## Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D  
 Acq On : 2 Jun 95 2:38 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

056

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev (Min) |
|------|---------------------------|-------|--------|-------|-------|-----------|
| 1    | Fluorobenzene             | 1.000 | 1.000  | 0.0   | 99    | 0.00      |
| 2 M  | Dichlorodifluoromethane   | 0.396 | 0.380  | 4.0   | 90    | 0.02      |
| 3 M  | Chloromethane             | 0.233 | 0.232  | 0.4   | 93    | 0.03      |
| 4 M  | Vinyl chloride            | 0.263 | 0.264  | -0.6  | 96    | 0.02      |
| 5 M  | Bromomethane              | 0.178 | 0.192  | -7.7  | 97    | 0.04      |
| 6 M  | Chloroethane              | 0.154 | 0.167  | -8.3  | 97    | 0.02      |
| 7 M  | Trichlorofluoromethane    | 0.588 | 0.573  | 2.5   | 95    | 0.02      |
| 8 M  | 1,1-Dichloroethene        | 0.258 | 0.256  | 0.8   | 96    | 0.03      |
| 9 M  | Methylene chloride        | 0.274 | 0.320  | -16.7 | 90    | 0.00      |
| 10 M | trans-1,2-Dichloroethene  | 0.273 | 0.275  | -0.9  | 98    | 0.00      |
| 11   | Hexane                    | 0.000 | 0.000# | 0.0   | 0#    | -9.46#    |
| 12 M | 1,1-Dichloroethane        | 0.545 | 0.556  | -2.1  | 102   | 0.00      |
| 13 M | 2,2-Dichloropropane       | 0.534 | 0.534  | 0.1   | 97    | 0.00      |
| 14 M | cis-1,2-Dichloroethene    | 0.257 | 0.253  | 1.5   | 96    | 0.00      |
| 15   | 2-Butanone                | 0.000 | 0.000# | 0.0   | 0#    | 0.04      |
| 16 M | Bromochloromethane        | 0.090 | 0.082  | 9.1   | 93    | 0.01      |
| 17 M | Chloroform                | 0.512 | 0.502  | 1.9   | 98    | 0.02      |
| 18 M | 1,1,1-Trichloroethane     | 0.566 | 0.553  | 2.4   | 97    | 0.00      |
| 19 M | Carbon tetrachloride      | 0.526 | 0.494  | 6.0   | 95    | 0.00      |
| 20 M | 1,1-Dichloropropene       | 0.495 | 0.499  | -0.9  | 98    | 0.00      |
| 21 M | Benzene                   | 0.871 | 0.866  | 0.5   | 97    | 0.01      |
| 22 M | 1,2-Dichloroethane        | 0.214 | 0.200  | 6.5   | 95    | 0.00      |
| 23 M | Trichloroethene           | 0.386 | 0.376  | 2.7   | 96    | 0.01      |
| 24 M | 1,2-Dichloropropane       | 0.285 | 0.286  | -0.4  | 101   | 0.01      |
| 25 M | Dibromomethane            | 0.115 | 0.109  | 5.9   | 96    | 0.00      |
| 26 M | Bromodichloromethane      | 0.396 | 0.380  | 4.0   | 98    | 0.00      |
| 27 M | cis-1,3-Dichloropropene   | 0.342 | 0.328  | 4.1   | 98    | 0.01      |
| 28 M | Toluene                   | 0.619 | 0.623  | -0.8  | 103   | 0.01      |
| 29 M | trans-1,3-Dichloropropene | 0.236 | 0.227  | 4.0   | 98    | 0.00      |
| 30 M | 1,1,2-Trichloroethane     | 0.110 | 0.105  | 4.7   | 98    | 0.00      |
| 31 M | Tetrachloroethene         | 0.388 | 0.364  | 6.1   | 94    | 0.00      |
| 32 M | 1,3-Dichloropropane       | 0.219 | 0.212  | 3.3   | 99    | 0.01      |
| 33 M | Dibromochloromethane      | 0.215 | 0.197  | 8.4   | 96    | 0.01      |
| 34 M | 1,2-Dibromomethane        | 0.152 | 0.144  | 5.6   | 99    | 0.00      |
| 35 M | Chlorobenzene             | 0.644 | 0.620  | 3.7   | 97    | 0.00      |
| 36 M | 1,1,1,2-Tetrachloroethane | 0.256 | 0.240  | 6.4   | 97    | 0.01      |
| 37 M | Ethylbenzene              | 1.302 | 1.285  | 1.3   | 100   | 0.00      |
| 38 M | Xylene (para & meta)      | 0.468 | 0.461  | 1.5   | 99    | 0.00      |
| 39 M | Xylene (Ortho)            | 0.414 | 0.402  | 2.8   | 98    | 0.00      |
| 40 M | Styrene                   | 0.641 | 0.610  | 4.8   | 97    | 0.00      |
| 41 M | Bromoform                 | 0.105 | 0.094  | 10.4  | 95    | -0.01     |
| 42 M | Isopropylbenzene          | 1.330 | 1.288  | 3.2   | 98    | 0.00      |

(#) = Out of Range

C8327.D VOA524.M

Sun Jun 18 10:57:58 1995

VOA

Page 1

## Evaluate Continuing Calibration Report

057

Data File : D:\HPCHEM\1\DATA\C8327.D  
Acq On : 2 Jun 95 2:38 pm  
Sample : 10 PPB CHK STANDARD  
Misc :

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(Min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 3 S  | 4-Bromofluorobenzene        | 0.499 | 0.488 | 2.2  | 101   | 0.01     |
| 4 M  | Bromobenzene                | 0.240 | 0.224 | 6.8  | 96    | 0.00     |
| 45 M | 1,1,2,2-Tetrachloroethane   | 0.118 | 0.120 | -2.1 | 107   | -0.01    |
| 46 M | 1,2,3-Trichloropropane      | 0.143 | 0.134 | 6.5  | 96    | -0.01    |
| 47 M | n-Propylbenzene             | 1.731 | 1.721 | 0.6  | 102   | 0.00     |
| 48 M | 2-Chlorotoluene             | 0.960 | 0.928 | 3.4  | 100   | 0.00     |
| 49 M | 4-Chlorotoluene             | 1.140 | 1.086 | 4.7  | 97    | 0.00     |
| 50 M | 1,3,5-Trimethylbenzene      | 1.101 | 1.070 | 2.9  | 100   | -0.01    |
| 51 M | tert-Butylbenzene           | 1.142 | 1.106 | 3.2  | 99    | 0.00     |
| 52 M | 1,2,4-Trimethylbenzene      | 1.009 | 0.994 | 1.5  | 100   | 0.00     |
| 53 M | sec-Butylbenzene            | 1.693 | 1.641 | 3.1  | 100   | 0.00     |
| 54 M | 1,3-Dichlorobenzene         | 0.489 | 0.456 | 6.8  | 97    | 0.00     |
| 55 M | 4-Isopropyltoluene          | 1.264 | 1.234 | 2.4  | 100   | 0.01     |
| 56 M | 1,4-Dichlorobenzene         | 0.485 | 0.442 | 8.8  | 95    | -0.01    |
| 57 S | 1,2-Dichlorobenzene-d4      | 0.228 | 0.224 | 1.7  | 102   | -0.01    |
| 58 M | 1,2-Dichlorobenzene         | 0.364 | 0.339 | 7.1  | 96    | 0.00     |
| 59 M | n-Butylbenzene              | 1.355 | 1.360 | -0.3 | 104   | 0.00     |
| 60 M | 1,2-Dibromo-3-chloropropane | 0.030 | 0.028 | 4.9  | 105   | 0.01     |
| 61 M | 1,2,4-Trichlorobenzene      | 0.268 | 0.237 | 11.4 | 92    | 0.00     |
| 62 M | Hexachlorobutadiene         | 0.323 | 0.287 | 11.1 | 94    | 0.00     |
| 63 M | Naphthalene                 | 0.232 | 0.203 | 12.6 | 92    | 0.00     |
| 64 M | 1,2,3-Trichlorobenzene      | 0.187 | 0.170 | 9.1  | 97    | 0.00     |
| 65   | Methyl-tert butyl ether     | 0.292 | 0.285 | 2.3  | 99    | 0.02     |
| 66   | tert-Butyl Alcohol          | 0.004 | 0.004 | 13.3 | 99    | -0.01    |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

C8327.D VOA524.M

Sun Jun 18 10:58:06 1995

VOA

Page 2

# Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D  
 Acq On : 2 Jun 95 2:38 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2 058  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(Min) |
|------|---------------------------|-------|--------|-------|-------|----------|
| 1    | Fluorobenzene             | 1.000 | 1.000  | 0.0   | 99    | 0.00     |
| 2 M  | Dichlorodifluoromethane   | 0.396 | 0.380  | 4.0   | 90    | 0.02     |
| 3 M  | Chloromethane             | 0.233 | 0.232  | 0.4   | 93    | 0.03     |
| 4 M  | Vinyl chloride            | 0.263 | 0.264  | -0.6  | 96    | 0.02     |
| 5 M  | Bromomethane              | 0.178 | 0.192  | -7.7  | 97    | 0.04     |
| 6 M  | Chloroethane              | 0.154 | 0.167  | -8.3  | 97    | 0.02     |
| 7 M  | Trichlorofluoromethane    | 0.588 | 0.573  | 2.5   | 95    | 0.02     |
| 8 M  | 1,1-Dichloroethene        | 0.258 | 0.256  | 0.8   | 96    | 0.03     |
| 9 M  | Methylene chloride        | 0.274 | 0.320  | -16.7 | 90    | 0.00     |
| 10 M | trans-1,2-Dichloroethene  | 0.273 | 0.275  | -0.9  | 98    | 0.00     |
| 11   | Hexane                    | 0.000 | 0.000# | 0.0   | 0#    | -9.46#   |
| 12 M | 1,1-Dichloroethane        | 0.545 | 0.556  | -2.1  | 102   | 0.00     |
| 13 M | 2,2-Dichloropropane       | 0.534 | 0.534  | 0.1   | 97    | 0.00     |
| 14 M | cis-1,2-Dichloroethene    | 0.257 | 0.253  | 1.5   | 96    | 0.00     |
| 15   | 2-Butanone                | 0.000 | 0.000# | 0.0   | 0#    | 0.04     |
| 16 M | Bromochloromethane        | 0.090 | 0.082  | 9.1   | 93    | 0.01     |
| 17 M | Chloroform                | 0.512 | 0.502  | 1.9   | 98    | 0.02     |
| 18 M | 1,1,1-Trichloroethane     | 0.566 | 0.553  | 2.4   | 97    | 0.00     |
| 19 M | Carbon tetrachloride      | 0.526 | 0.494  | 6.0   | 95    | 0.00     |
| 20 M | 1,1-Dichloropropene       | 0.495 | 0.499  | -0.9  | 98    | 0.00     |
| 21 M | Benzene                   | 0.871 | 0.866  | 0.5   | 97    | 0.01     |
| 22 M | 1,2-Dichloroethane        | 0.214 | 0.200  | 6.5   | 95    | 0.00     |
| 23 M | Trichloroethene           | 0.386 | 0.376  | 2.7   | 96    | 0.01     |
| 24 M | 1,2-Dichloropropane       | 0.285 | 0.286  | -0.4  | 101   | 0.01     |
| 25 M | Dibromomethane            | 0.115 | 0.109  | 5.9   | 96    | 0.00     |
| 26 M | Bromodichloromethane      | 0.396 | 0.380  | 4.0   | 98    | 0.00     |
| 27 M | cis-1,3-Dichloropropene   | 0.342 | 0.328  | 4.1   | 98    | 0.01     |
| 28 M | Toluene                   | 0.619 | 0.623  | -0.8  | 103   | 0.01     |
| 29 M | trans-1,3-Dichloropropene | 0.236 | 0.227  | 4.0   | 98    | 0.00     |
| 30 M | 1,1,2-Trichloroethane     | 0.110 | 0.105  | 4.7   | 98    | 0.00     |
| 31 M | Tetrachloroethene         | 0.388 | 0.364  | 6.1   | 94    | 0.00     |
| 32 M | 1,3-Dichloropropane       | 0.219 | 0.212  | 3.3   | 99    | 0.01     |
| 33 M | Dibromochloromethane      | 0.215 | 0.197  | 8.4   | 96    | 0.01     |
| 34 M | 1,2-Dibromomethane        | 0.152 | 0.144  | 5.6   | 99    | 0.00     |
| 35 M | Chlorobenzene             | 0.644 | 0.620  | 3.7   | 97    | 0.00     |
| 36 M | 1,1,1,2-Tetrachloroethane | 0.256 | 0.240  | 6.4   | 97    | 0.01     |
| 37 M | Ethylbenzene              | 1.302 | 1.285  | 1.3   | 100   | 0.00     |
| 38 M | Xylene (para & meta)      | 0.468 | 0.461  | 1.5   | 99    | 0.00     |
| 39 M | Xylene (Ortho)            | 0.414 | 0.402  | 2.8   | 98    | 0.00     |
| 40 M | Styrene                   | 0.641 | 0.610  | 4.8   | 97    | 0.00     |
| 41 M | Bromoform                 | 0.105 | 0.094  | 10.4  | 95    | -0.01    |
| 42 M | Isopropylbenzene          | 1.330 | 1.288  | 3.2   | 98    | 0.00     |

(#) = Out of Range



## Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8327.D

Acq On : 2 Jun 95 2:38 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

059

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev (Min) |
|------|-----------------------------|-------|-------|------|-------|-----------|
| 43 S | 4-Bromofluorobenzene        | 0.499 | 0.488 | 2.2  | 101   | 0.01      |
| 44 M | Bromobenzene                | 0.240 | 0.224 | 6.8  | 96    | 0.00      |
| 45 M | 1,1,2,2-Tetrachloroethane   | 0.118 | 0.120 | -2.1 | 107   | -0.01     |
| 46 M | 1,2,3-Trichloropropane      | 0.143 | 0.134 | 6.5  | 96    | -0.01     |
| 47 M | n-Propylbenzene             | 1.731 | 1.721 | 0.6  | 102   | 0.00      |
| 48 M | 2-Chlorotoluene             | 0.960 | 0.928 | 3.4  | 100   | 0.00      |
| 49 M | 4-Chlorotoluene             | 1.140 | 1.086 | 4.7  | 97    | 0.00      |
| 50 M | 1,3,5-Trimethylbenzene      | 1.101 | 1.070 | 2.9  | 100   | -0.01     |
| 51 M | tert-Butylbenzene           | 1.142 | 1.106 | 3.2  | 99    | 0.00      |
| 52 M | 1,2,4-Trimethylbenzene      | 1.009 | 0.994 | 1.5  | 100   | 0.00      |
| 53 M | sec-Butylbenzene            | 1.693 | 1.641 | 3.1  | 100   | 0.00      |
| 54 M | 1,3-Dichlorobenzene         | 0.489 | 0.456 | 6.8  | 97    | 0.00      |
| 55 M | 4-Isopropyltoluene          | 1.264 | 1.234 | 2.4  | 100   | 0.01      |
| 56 M | 1,4-Dichlorobenzene         | 0.485 | 0.442 | 8.8  | 95    | -0.01     |
| 57 S | 1,2-Dichlorobenzene-d4      | 0.228 | 0.224 | 1.7  | 102   | -0.01     |
| 58 M | 1,2-Dichlorobenzene         | 0.364 | 0.339 | 7.1  | 96    | 0.00      |
| 59 M | n-Butylbenzene              | 1.355 | 1.360 | -0.3 | 104   | 0.00      |
| 60 M | 1,2-Dibromo-3-chloropropane | 0.030 | 0.028 | 4.9  | 105   | 0.01      |
| 61 M | 1,2,4-Trichlorobenzene      | 0.268 | 0.237 | 11.4 | 92    | 0.00      |
| 62 M | Hexachlorobutadiene         | 0.323 | 0.287 | 11.1 | 94    | 0.00      |
| 63 M | Naphthalene                 | 0.232 | 0.203 | 12.6 | 92    | 0.00      |
| 64 M | 1,2,3-Trichlorobenzene      | 0.187 | 0.170 | 9.1  | 97    | 0.00      |
| 65   | Methyl-tert butyl ether     | 0.292 | 0.285 | 2.3  | 99    | 0.02      |
| 66   | tert-Butyl Alcohol          | 0.004 | 0.004 | 13.3 | 99    | -0.01     |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

C8327.D VOA524.M

Sun Jun 18 10:58:06 1995

VOA

Page 2

## Quantitation Report

060

Data File : d:\hpchem\1\data\c8327.d  
 Acq On : 2 Jun 95 2:38 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 18 10:56 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.84 | 96   | 767042   | 5.00 | ug/L  | 0.00      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 374057   | 4.89 | ug/L  | 97.77%    |
| 57) 1,2-Dichlorobenzene-d4  | 21.87 | 152  | 171801   | 4.92 | ug/L  | 98.31%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.30  | 85   | 583501   | 9.60  | ug/L   | 98     |
| 3) Chloromethane              | 3.67  | 50   | 356438   | 9.96  | ug/L   | 94     |
| 4) Vinyl chloride             | 3.89  | 62   | 405685   | 10.06 | ug/L   | 99     |
| 5) Bromomethane               | 4.56  | 94   | 293817   | 10.77 | ug/L   | 95     |
| 6) Chloroethane               | 4.78  | 64   | 255912   | 10.83 | ug/L   | 100    |
| 7) Trichlorofluoromethane     | 5.36  | 101  | 878729   | 9.75  | ug/L   | 99     |
| 8) 1,1-Dichloroethene         | 6.45  | 96   | 392865   | 9.92  | ug/L   | 93     |
| 9) Methylene chloride         | 7.42  | 84   | 490286   | 11.67 | ug/L m | 98     |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96   | 422170   | 10.09 | ug/L   | 96     |
| 12) 1,1-Dichloroethane        | 8.77  | 63   | 853713   | 10.21 | ug/L   | 94     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 818786   | 9.99  | ug/L   | 99     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 388232   | 9.85  | ug/L   | 95     |
| 16) Bromochloromethane        | 10.25 | 128  | 125536   | 9.09  | ug/L   | 95     |
| 17) Chloroform                | 10.41 | 83   | 769901   | 9.81  | ug/L   | 100    |
| 18) 1,1,1-Trichloroethane     | 10.72 | 97   | 847947   | 9.76  | ug/L   | 98     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 758452   | 9.40  | ug/L   | 99     |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 765585   | 10.09 | ug/L   | 100    |
| 21) Benzene                   | 11.36 | 78   | 1329023  | 9.95  | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 306504   | 9.35  | ug/L   | 98     |
| 23) Trichloroethene           | 12.49 | 95   | 576242   | 9.73  | ug/L   | 99     |
| 24) 1,2-Dichloropropane       | 12.84 | 63   | 439106   | 10.04 | ug/L   | 99     |
| 25) Dibromomethane            | 13.03 | 93   | 166758   | 9.41  | ug/L   | 96     |
| 26) Bromodichloromethane      | 13.30 | 83   | 583419   | 9.60  | ug/L   | 99     |
| 27) cis-1,3-Dichloropropene   | 14.07 | 75   | 503699   | 9.59  | ug/L   | 98     |
| 28) Toluene                   | 14.65 | 92   | 956341   | 10.08 | ug/L   | 97     |
| 29) trans-1,3-Dichloropropene | 14.99 | 75   | 348125   | 9.60  | ug/L   | 99     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 161436   | 9.53  | ug/L   | 94     |
| 31) Tetrachloroethene         | 15.61 | 166  | 558578   | 9.39  | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.59 | 76   | 324642   | 9.67  | ug/L   | 98     |
| 33) Dibromochloromethane      | 16.00 | 129  | 301927   | 9.16  | ug/L   | 94     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 220690   | 9.44  | ug/L   | 99     |
| 35) Chlorobenzene             | 17.07 | 112  | 951369   | 9.63  | ug/L   | 98     |
| 36) 1,1,1,2-Tetrachloroethane | 17.21 | 131  | 367447   | 9.36  | ug/L   | 96     |
| 37) Ethylbenzene              | 17.26 | 91   | 1971802  | 9.87  | ug/L   | 97     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 1413580  | 19.71 | ug/L   | 100    |
| 39) Xylene (Ortho)            | 18.17 | 106  | 617126   | 9.72  | ug/L   | 89     |
| 40) Styrene                   | 18.19 | 104  | 936258   | 9.52  | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

c8327.d VOA524.M

Sun Jun 18 10:59:28 1995

VOA

Page 1

Data File : d:\hpchem\1\data\c8327.d  
Acq On : 2 Jun 95 2:38 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 18 10:56 1995

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

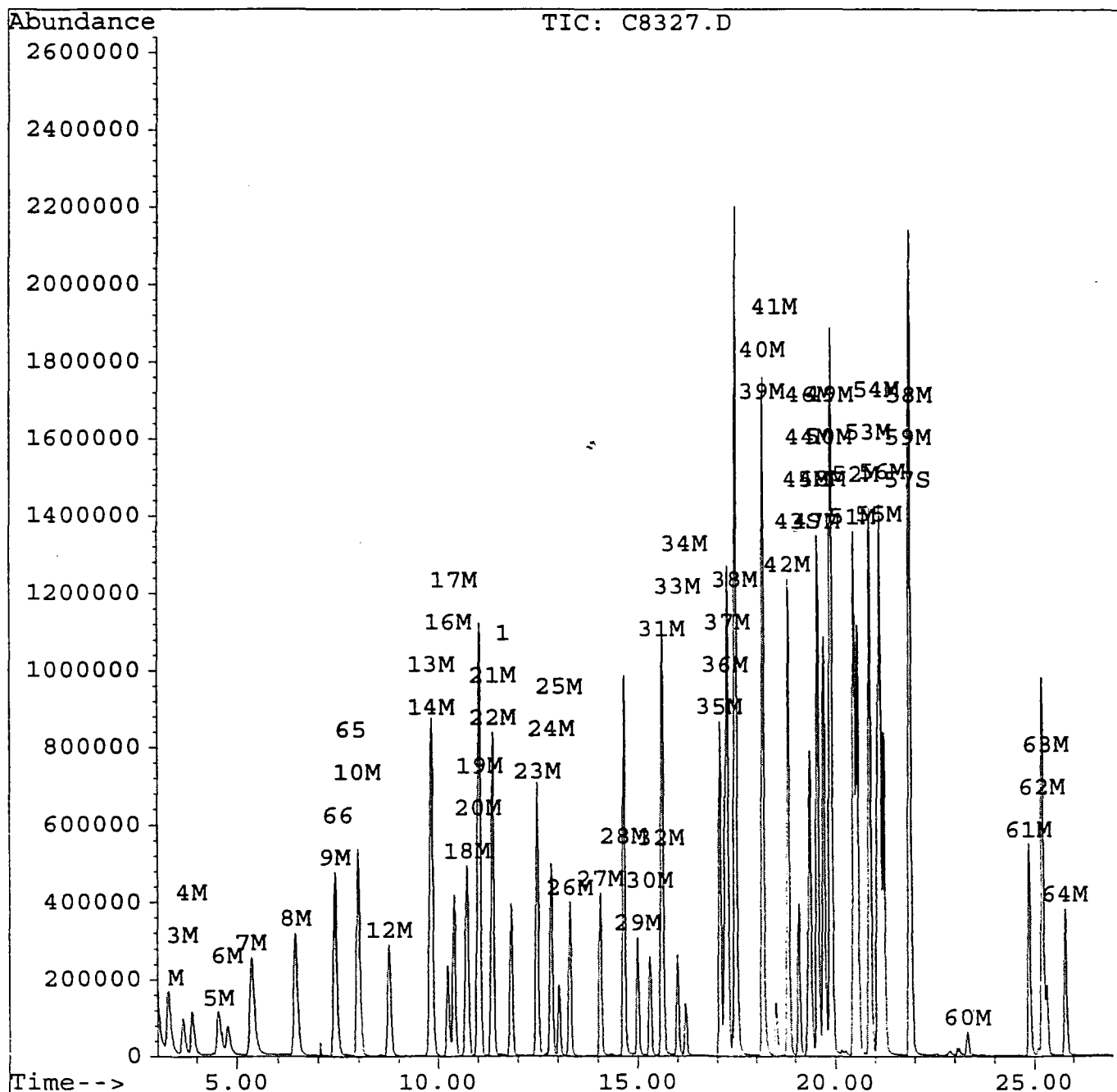
| Compound                       | R.T.  | QIon | Response | Conc Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------------|--------|
| 41) Bromoform                  | 18.50 | 173  | 144872   | 8.96 ug/L   | 88     |
| 42) Isopropylbenzene           | 18.83 | 105  | 1975228  | 9.68 ug/L m | 0      |
| 44) Bromobenzene               | 19.38 | 156  | 342999   | 9.32 ug/L   | 92     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.31 | 83   | 184638   | 10.21 ug/L  | 98     |
| 46) 1,2,3-Trichloropropane     | 19.39 | 75   | 205309   | 9.35 ug/L # | 46     |
| 47) n-Propylbenzene            | 19.57 | 91   | 2639604  | 9.94 ug/L   | 100    |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 1423366  | 9.66 ug/L   | 97     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 1666752  | 9.53 ug/L   | 84     |
| 50) 1,3,5-Trimethylbenzene     | 19.88 | 105  | 1640914  | 9.71 ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 1696559  | 9.68 ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 1524127  | 9.85 ug/L   | 98     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 2517372  | 9.69 ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 699189   | 9.32 ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 1892941  | 9.76 ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 678761   | 9.12 ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 519547   | 9.29 ug/L   | 97     |
| 59) n-Butylbenzene             | 21.89 | 91   | 2085804  | 10.03 ug/L  | 99     |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 43673    | 9.51 ug/L   | 87     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 364226   | 8.86 ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 440816   | 8.89 ug/L   | 100    |
| 63) Naphthalene                | 25.33 | 128  | 311057   | 8.74 ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 260555   | 9.09 ug/L   | 94     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 437846   | 9.77 ug/L   | 93     |
| 66) tert-Butyl Alcohol         | 7.71  | 59   | 11905    | 17.33 ug/L  | 100    |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8327.d  
Acq On : 2 Jun 95 2:38 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 18 10:56 1995

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



Data File : d:\hpchem\1\data\c8328.d  
 Acq On : 2 Jun 95 3:14 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 2 15:42 1995

Vial: 3  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.84 | 96   | 701997   | 5.00 | ug/L  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 392100   | 5.60 | ug/L  | 111.98%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 188735   | 5.90 | ug/L  | 118.00%   |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units  | Qvalue |
|-------------------------------|-------|------|----------|------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.31  | 85   | 57067    | 1.03 | ug/L   | 95     |
| 3) Chloromethane              | 3.68  | 50   | 33627    | 1.03 | ug/L   | 81     |
| 4) Vinyl chloride             | 3.89  | 62   | 37514    | 1.02 | ug/L   | 82     |
| 5) Bromomethane               | 4.55  | 94   | 31476    | 1.26 | ug/L   | 99     |
| 6) Chloroethane               | 4.78  | 64   | 22965    | 1.06 | ug/L   | 95     |
| 7) Trichlorofluoromethane     | 5.37  | 101  | 81182    | 0.98 | ug/L   | 89     |
| 8) 1,1-Dichloroethene         | 6.46  | 96   | 35879    | 0.99 | ug/L # | 82     |
| 9) Methylene chloride         | 7.42  | 84   | 288375   | 7.50 | ug/L   | 98     |
| 10) trans-1,2-Dichloroethene  | 7.98  | 96   | 38379    | 1.00 | ug/L   | 94     |
| 12) 1,1-Dichloroethane        | 8.78  | 63   | 83513    | 1.09 | ug/L   | 96     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 77701    | 1.04 | ug/L   | 97     |
| 14) cis-1,2-Dichloroethene    | 9.84  | 96   | 37729    | 1.05 | ug/L   | 92     |
| 16) Bromochloromethane        | 10.25 | 128  | 14427    | 1.14 | ug/L   | 90     |
| 17) Chloroform                | 10.41 | 83   | 80218    | 1.12 | ug/L   | 94     |
| 18) 1,1,1-Trichloroethane     | 10.73 | 97   | 79180    | 1.00 | ug/L   | 97     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 70373    | 0.95 | ug/L   | 97     |
| 20) 1,1-Dichloropropene       | 11.02 | 75   | 70922    | 1.02 | ug/L   | 96     |
| 21) Benzene                   | 11.36 | 78   | 133400   | 1.09 | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 34735    | 1.16 | ug/L   | 99     |
| 23) Trichloroethene           | 12.49 | 95   | 57891    | 1.07 | ug/L   | 93     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 48388    | 1.21 | ug/L   | 89     |
| 25) Dibromomethane            | 13.03 | 93   | 19457    | 1.20 | ug/L # | 82     |
| 26) Bromodichloromethane      | 13.30 | 83   | 62965    | 1.13 | ug/L   | 95     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 53234    | 1.11 | ug/L   | 98     |
| 28) Toluene                   | 14.64 | 92   | 100393   | 1.16 | ug/L   | 99     |
| 29) trans-1,3-Dichloropropene | 14.99 | 75   | 36216    | 1.09 | ug/L   | 96     |
| 30) 1,1,2-Trichloroethane     | 15.29 | 83   | 17810    | 1.15 | ug/L   | 86     |
| 31) Tetrachloroethene         | 15.61 | 166  | 54046    | 0.99 | ug/L   | 91     |
| 32) 1,3-Dichloropropane       | 15.59 | 76   | 38148    | 1.24 | ug/L   | 97     |
| 33) Dibromochloromethane      | 16.00 | 129  | 32067    | 1.06 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 24684    | 1.15 | ug/L   | 94     |
| 35) Chlorobenzene             | 17.07 | 112  | 98460    | 1.09 | ug/L   | 97     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 39264    | 1.09 | ug/L   | 87     |
| 37) Ethylbenzene              | 17.26 | 91   | 192542   | 1.05 | ug/L   | 100    |
| 38) Xylene (para & meta)      | 17.46 | 106  | 139158   | 2.12 | ug/L   | 88     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 62542    | 1.08 | ug/L   | 93     |
| 40) Styrene                   | 18.18 | 104  | 96581    | 1.07 | ug/L   | 94     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data2\c8328.d  
Acq On : 2 Jun 95 3:14 pm  
Sample : 1 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 2 15:42 1995

Vial: 3 064  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

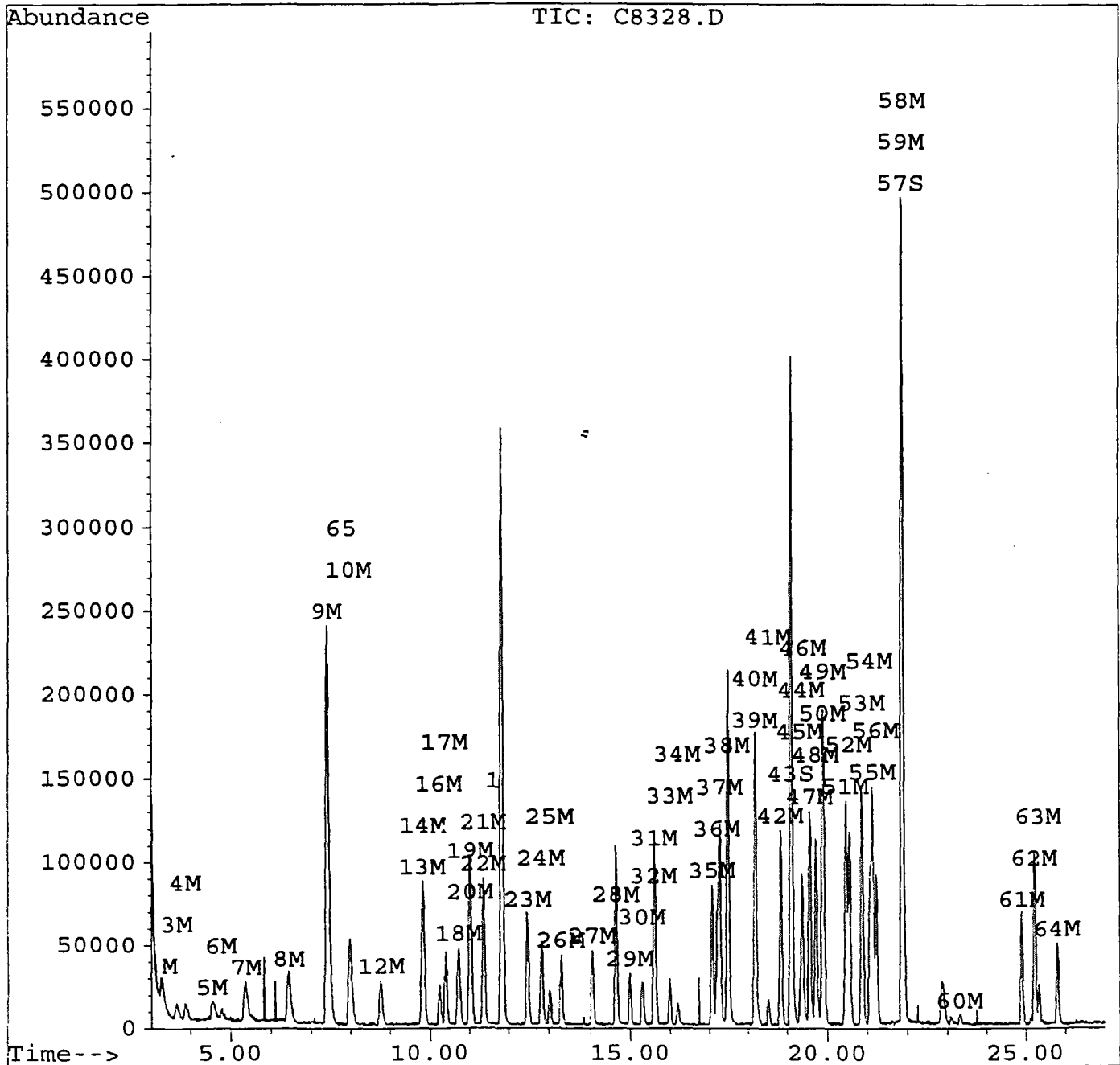
| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.50 | 173  | 18185    | 1.23 | ug/L   | 83     |
| 42) Isopropylbenzene           | 18.83 | 105  | 190069   | 1.02 | ug/L   | 92     |
| 44) Bromobenzene               | 19.37 | 156  | 38075    | 1.13 | ug/L   | 95     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 21192    | 1.28 | ug/L   | 94     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 26851    | 1.34 | ug/L # | 78     |
| 47) n-Propylbenzene            | 19.57 | 91   | 258094   | 1.06 | ug/L   | 96     |
| 48) 2-Chlorotoluene            | 19.72 | 91   | 155848   | 1.16 | ug/L   | 99     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 181185   | 1.13 | ug/L   | 79     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 160790   | 1.04 | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 168154   | 1.05 | ug/L   | 99     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 158808   | 1.12 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.87 | 105  | 253326   | 1.07 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 79249    | 1.15 | ug/L   | 93     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 187231   | 1.05 | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 79905    | 1.17 | ug/L   | 92     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 59283    | 1.16 | ug/L   | 91     |
| 59) n-Butylbenzene             | 21.89 | 91   | 208059   | 1.09 | ug/L   | 98     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 5339     | 1.27 | ug/L # | 75     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 46194    | 1.23 | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 47903    | 1.06 | ug/L   | 96     |
| 63) Naphthalene                | 25.34 | 128  | 45226    | 1.39 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 37447    | 1.43 | ug/L   | 90     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 56568    | 1.38 | ug/L   | 91     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data2\c8328.d  
Acq On : 2 Jun 95 3:14 pm  
Sample : 1 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 2 15:42 1995

Vial: 3  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



## Quantitation Report

066

Data File : d:\hpchem\1\data\c8340.d  
 Acq On : 2 Jun 95 10:24 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 18 11:14 1995

Vial: 15  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.86 | 96   | 672699   | 5.00 | ug/L  | 0.02      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.11 | 95   | 343138   | 5.11 | ug/L  | 102.27%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.90 | 152  | 159135   | 5.19 | ug/L  | 103.83%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.31  | 85   | 373874   | 7.01  | ug/L  | 96     |
| 3) Chloromethane              | 3.68  | 50   | 242950   | 7.74  | ug/L  | 97     |
| 4) Vinyl chloride             | 3.89  | 62   | 304858   | 8.62  | ug/L  | 92     |
| 5) Bromomethane               | 4.55  | 94   | 223328   | 9.34  | ug/L  | 96     |
| 6) Chloroethane               | 4.79  | 64   | 195151   | 9.41  | ug/L  | 97     |
| 7) Trichlorofluoromethane     | 5.36  | 101  | 738479   | 9.34  | ug/L  | 97     |
| 8) 1,1-Dichloroethene         | 6.46  | 96   | 329465   | 9.49  | ug/L  | 95     |
| 9) Methylene chloride         | 7.43  | 84   | 474810   | 12.89 | ug/L  | 96     |
| 10) trans-1,2-Dichloroethene  | 7.99  | 96   | 359156   | 9.79  | ug/L  | 98     |
| 12) 1,1-Dichloroethane        | 8.78  | 63   | 749063   | 10.21 | ug/L  | 97     |
| 13) 2,2-Dichloropropane       | 9.85  | 77   | 562813   | 7.83  | ug/L  | 98     |
| 14) cis-1,2-Dichloroethene    | 9.85  | 96   | 337128   | 9.75  | ug/L  | 98     |
| 16) Bromochloromethane        | 10.26 | 128  | 124511   | 10.28 | ug/L  | 98     |
| 17) Chloroform                | 10.42 | 83   | 698552   | 10.15 | ug/L  | 97     |
| 18) 1,1,1-Trichloroethane     | 10.74 | 97   | 754191   | 9.90  | ug/L  | 98     |
| 19) Carbon tetrachloride      | 11.05 | 117  | 686973   | 9.71  | ug/L  | 97     |
| 20) 1,1-Dichloropropene       | 11.03 | 75   | 655965   | 9.86  | ug/L  | 97     |
| 21) Benzene                   | 11.39 | 78   | 1139374  | 9.73  | ug/L  | 99     |
| 22) 1,2-Dichloroethane        | 11.39 | 62   | 298197   | 10.37 | ug/L  | 96     |
| 23) Trichloroethene           | 12.50 | 95   | 501167   | 9.65  | ug/L  | 98     |
| 24) 1,2-Dichloropropane       | 12.85 | 63   | 397241   | 10.36 | ug/L  | 100    |
| 25) Dibromomethane            | 13.05 | 93   | 161828   | 10.42 | ug/L  | 98     |
| 26) Bromodichloromethane      | 13.32 | 83   | 559683   | 10.51 | ug/L  | 98     |
| 27) cis-1,3-Dichloropropene   | 14.08 | 75   | 438904   | 9.53  | ug/L  | 99     |
| 28) Toluene                   | 14.66 | 92   | 819426   | 9.85  | ug/L  | 98     |
| 29) trans-1,3-Dichloropropene | 15.00 | 75   | 311680   | 9.80  | ug/L  | 98     |
| 30) 1,1,2-Trichloroethane     | 15.32 | 83   | 152649   | 10.28 | ug/L  | 99     |
| 31) Tetrachloroethene         | 15.62 | 166  | 490520   | 9.41  | ug/L  | 96     |
| 32) 1,3-Dichloropropane       | 15.60 | 76   | 305203   | 10.37 | ug/L  | 100    |
| 33) Dibromochloromethane      | 16.01 | 129  | 296590   | 10.26 | ug/L  | 96     |
| 34) 1,2-Dibromomethane        | 16.21 | 107  | 207953   | 10.14 | ug/L  | 94     |
| 35) Chlorobenzene             | 17.09 | 112  | 877680   | 10.13 | ug/L  | 98     |
| 36) 1,1,1,2-Tetrachloroethane | 17.22 | 131  | 338926   | 9.85  | ug/L  | 92     |
| 37) Ethylbenzene              | 17.28 | 91   | 1722310  | 9.83  | ug/L  | 100    |
| 38) Xylene (para & meta)      | 17.49 | 106  | 1228905  | 19.53 | ug/L  | 93     |
| 39) Xylene (Ortho)            | 18.19 | 106  | 559418   | 10.05 | ug/L  | 98     |
| 40) Styrene                   | 18.20 | 104  | 840320   | 9.74  | ug/L  | 95     |

(#) = qualifier out of range (m) = manual integration



## Quantitation Report

067

Data File : d:\hpchem\1\data\c8340.d  
Acq On : 2 Jun 95 10:24 pm  
Sample : 10 PPB QCS  
Misc : 25 ML  
Quant Time: Jun 18 11:14 1995

Vial: 15  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.52 | 173  | 149526   | 10.54 | ug/L   | 86     |
| 42) Isopropylbenzene           | 18.85 | 105  | 1770301  | 9.89  | ug/L   | 91     |
| 44) Bromobenzene               | 19.39 | 156  | 325111   | 10.08 | ug/L   | 94     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.33 | 83   | 173819   | 10.96 | ug/L   | 92     |
| 46) 1,2,3-Trichloropropane     | 19.41 | 75   | 195899   | 10.17 | ug/L # | 59     |
| 47) n-Propylbenzene            | 19.58 | 91   | 2250521  | 9.66  | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.74 | 91   | 1385729  | 10.72 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.93 | 91   | 1503669  | 9.80  | ug/L   | 84     |
| 50) 1,3,5-Trimethylbenzene     | 19.90 | 105  | 1384988  | 9.35  | ug/L   | 100    |
| 51) tert-Butylbenzene          | 20.50 | 119  | 1501089  | 9.77  | ug/L   | 100    |
| 52) 1,2,4-Trimethylbenzene     | 20.58 | 105  | 1369962  | 10.09 | ug/L   | 99     |
| 53) sec-Butylbenzene           | 20.90 | 105  | 2149114  | 9.44  | ug/L   | 100    |
| 54) 1,3-Dichlorobenzene        | 21.10 | 146  | 648339   | 9.85  | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.16 | 119  | 1594504  | 9.37  | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.25 | 146  | 660068   | 10.11 | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.93 | 146  | 511792   | 10.44 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.91 | 91   | 1685715  | 9.25  | ug/L   | 99     |
| 60) 1,2-Dibromo-3-chloropropan | 23.35 | 75   | 43634    | 10.83 | ug/L   | 94     |
| 61) 1,2,4-Trichlorobenzene     | 24.91 | 180  | 365459   | 10.14 | ug/L   | 93     |
| 62) Hexachlorobutadiene        | 25.25 | 225  | 401437   | 9.23  | ug/L   | 99     |
| 63) Naphthalene                | 25.36 | 128  | 346845   | 11.12 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.83 | 180  | 262367   | 10.44 | ug/L   | 91     |

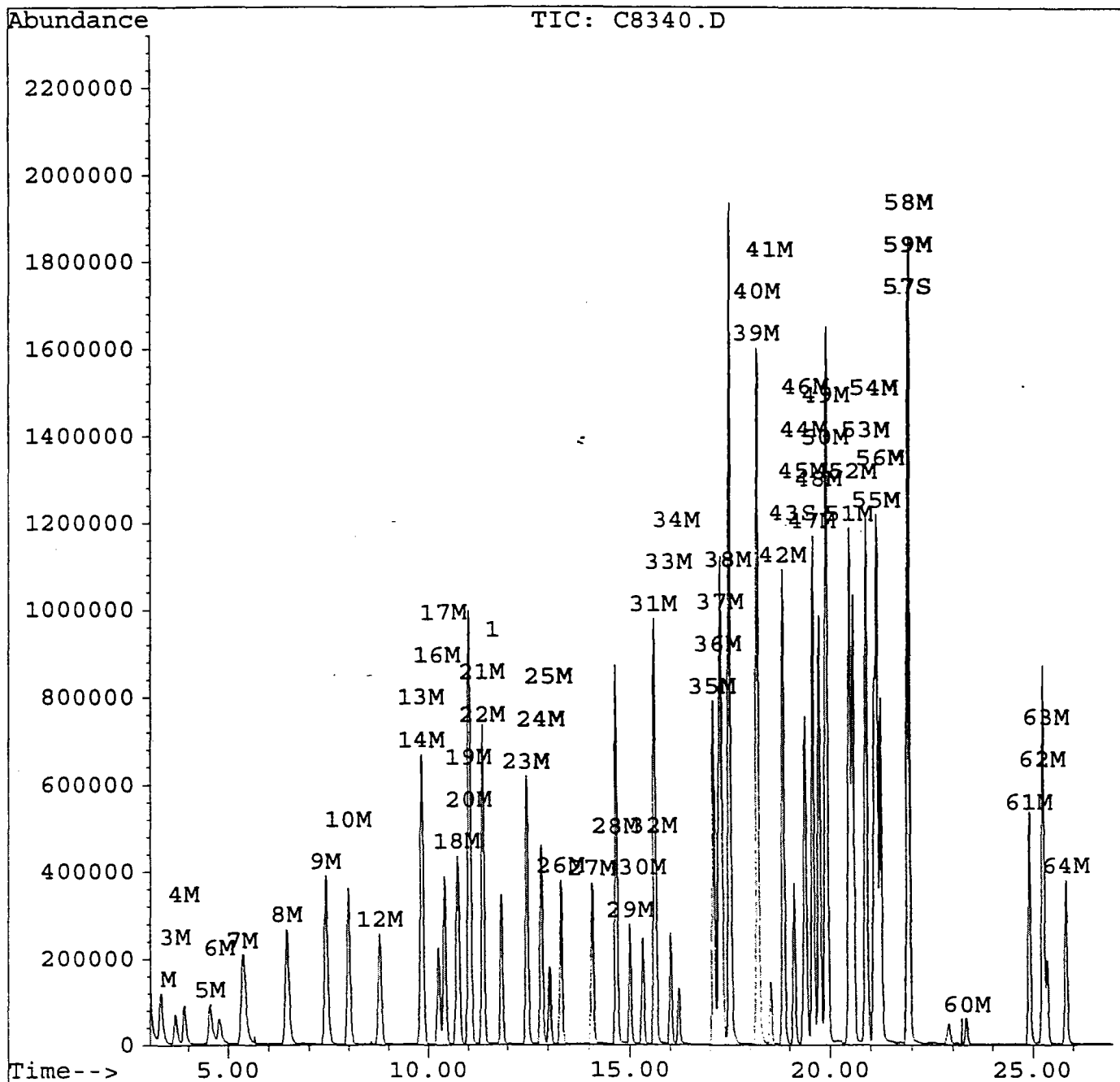
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8340.d  
 Acq On : 2 Jun 95 10:24 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 18 11:14 1995

Vial: 15 **068**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

069

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): C8327.DDate Analyzed: 6/2/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1438GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

|               | IS1 (FBZ) |       |        |      |        |      |
|---------------|-----------|-------|--------|------|--------|------|
|               | AREA #    | RT #  | AREA # | RT # | AREA # | RT # |
| 8 HOUR STD    | 767042    | 11.84 |        |      |        |      |
| UPPER LIMIT   | 1534084   | 12.34 |        |      |        |      |
| LOWER LIMIT   | 383521    | 11.34 |        |      |        |      |
| SAMPLE NO.    |           |       |        |      |        |      |
| 01 1PPB STD   | 701997    | 11.84 |        |      |        |      |
| 02 VBLK01     | 689722    | 11.84 |        |      |        |      |
| 03 9523339V   | 691197    | 11.84 |        |      |        |      |
| 04 9523340V   | 590801    | 11.84 |        |      |        |      |
| 05 9523341V   | 685338    | 11.84 |        |      |        |      |
| 06 9523342V   | 725874    | 11.84 |        |      |        |      |
| 07 9523343V   | 693564    | 11.84 |        |      |        |      |
| 08 9523163V   | 708098    | 11.84 |        |      |        |      |
| 09 9523167V   | 674824    | 11.85 |        |      |        |      |
| 10 9523166V   | 688621    | 11.84 |        |      |        |      |
| 11 9523343MS  | 668860    | 11.85 |        |      |        |      |
| 12 9523343MSD | 671183    | 11.85 |        |      |        |      |
| 13 10PPBQCS   | 672699    | 11.86 |        |      |        |      |
| 14            |           |       |        |      |        |      |
| 15            |           |       |        |      |        |      |
| 16            |           |       |        |      |        |      |
| 17            |           |       |        |      |        |      |
| 18            |           |       |        |      |        |      |
| 19            |           |       |        |      |        |      |
| 20            |           |       |        |      |        |      |
| 21            |           |       |        |      |        |      |
| 22            |           |       |        |      |        |      |

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

|                                           |                                                  |
|-------------------------------------------|--------------------------------------------------|
| Lab Name: <u>EMSL ANALYTICAL</u>          | Lab Sample ID: <u>9523339</u> <i>mwf-2931777</i> |
| Matrix (soil/water): <u>WATER</u>         | Lab File ID: <u>C8330.D</u>                      |
| Sample wt/vol: <u>25 mL</u>               | Date Received: <u>05/22/95</u>                   |
| Level (low/med): <u>LOW</u>               | Date Analyzed: <u>06/02/95</u>                   |
| % Moisture: not dec.: <u>NA</u>           | Dilution Factor: <u>1</u>                        |
| GC Column: <u>DB-624 x 75m ID: 0.53mm</u> | Soil Aliquot Volume: <u>NA</u>                   |
| Soil Extract Volume: <u>NA</u>            |                                                  |

## CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 1.9 | B |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .50 | U |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
 Matrix (soil/water): WATER  
 Sample wt/vol: 25 mL  
 Level (low/med): LOW  
 % Moisture: not dec.: NA  
 GC Column: DB-624 x 75m ID: 0.53mm  
 Soil Extract Volume: NA

Lab Sample ID: 9523339 MWL-2931777  
 Lab File ID: C8330.D  
 Date Received: 05/22/95  
 Date Analyzed: 06/02/95  
 Dilution Factor: 1  
 Soil Aliquot Volume: NA

## CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .50 | U |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .70 |   |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | 1.5 |   |
| 135-98-8----- | sec-Butylbenzene            | .60 |   |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .80 |   |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .80 |   |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .80 |   |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |

## COMMENT

U= Not Detected

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9523339V

072  
mux-29317777

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Matrix: (soil/water) WATER Lab Sample ID: 9523339V  
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8330.D  
Level: (low/med) LOW Date Received: 5/22/95  
% Moisture: not dec. NA Date Analyzed: 6/2/95  
GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0  
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 15 (ug/L or ug/Kg) ug/L

| CAS Number    | Compound Name                | RT    | Est. Conc. | Q |
|---------------|------------------------------|-------|------------|---|
| 1. 1074-43-7  | Benzene, 1-methyl-3-propyl-  | 21.74 | 3          | J |
| 2. 135-98-8   | Benzene, (1-methylpropyl)-   | 22.20 | 2          | J |
| 3. 1758-88-9  | Benzene, 2-ethyl-1,4-dimethy | 22.36 | 1          | J |
| 4. 934-80-5   | Benzene, 4-ethyl-1,2-dimethy | 22.55 | 3          | J |
| 5.            | Unknown                      | 22.76 | 1          | J |
| 6.            | Unknown                      | 22.82 | 1          | J |
| 7. 527-53-7   | Benzene, 1,2,3,5-tetramethyl | 23.28 | 2          | J |
| 8. 933-98-2   | Benzene, 1-ethyl-2,3-dimethy | 23.38 | 1          | J |
| 9. 27133-93-3 | 2,3-Dihydro-1-methylindene   | 24.16 | 2          | J |
| 10.           | Unknown                      | 24.17 | 1          | J |
| 11.           | Unknown                      | 24.48 | 2          | J |
| 12.           | Unknown                      | 25.06 | 2          | J |
| 13.           | Unknown                      | 25.53 | 2          | J |
| 14.           | Unknown                      | 25.72 | 2          | J |
| 15.           | Unknown                      | 26.53 | 2          | J |
| 16.           |                              |       |            |   |
| 17.           |                              |       |            |   |
| 18.           |                              |       |            |   |
| 19.           |                              |       |            |   |
| 20.           |                              |       |            |   |
| 21.           |                              |       |            |   |
| 22.           |                              |       |            |   |
| 23.           |                              |       |            |   |
| 24.           |                              |       |            |   |
| 25.           |                              |       |            |   |
| 26.           |                              |       |            |   |
| 27.           |                              |       |            |   |
| 28.           |                              |       |            |   |
| 29.           |                              |       |            |   |
| 30.           |                              |       |            |   |

## Quantitation Report

Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML  
Quant Time: Jun 3 14:34 1995

Vial: 5 073  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.84 | 96   | 691197   | 5.00 | ug/L  | 0.00     |

| System Monitoring Compounds |       |     |        |           | %Recovery |
|-----------------------------|-------|-----|--------|-----------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95  | 370979 | 5.38 ug/L | 107.61%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152 | 180850 | 5.74 ug/L | 114.84%   |

| Target Compounds           |       |     |        |             | Qvalue |
|----------------------------|-------|-----|--------|-------------|--------|
| 9) Methylene chloride      | 7.42  | 84  | 73277  | 1.94 ug/L   | 92     |
| 50) 1,3,5-Trimethylbenzene | 19.88 | 105 | 110362 | 0.72 ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene | 20.56 | 105 | 214490 | 1.54 ug/L   | 98     |
| 53) sec-Butylbenzene       | 20.88 | 105 | 141948 | 0.61 ug/L   | 99     |
| 55) 4-Isopropyltoluene     | 21.05 | 119 | 130415 | 0.75 ug/L   | 97     |
| 59) n-Butylbenzene         | 21.88 | 91  | 145111 | 0.77 ug/L # | 7      |
| 63) Naphthalene            | 25.33 | 128 | 26399  | 0.82 ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

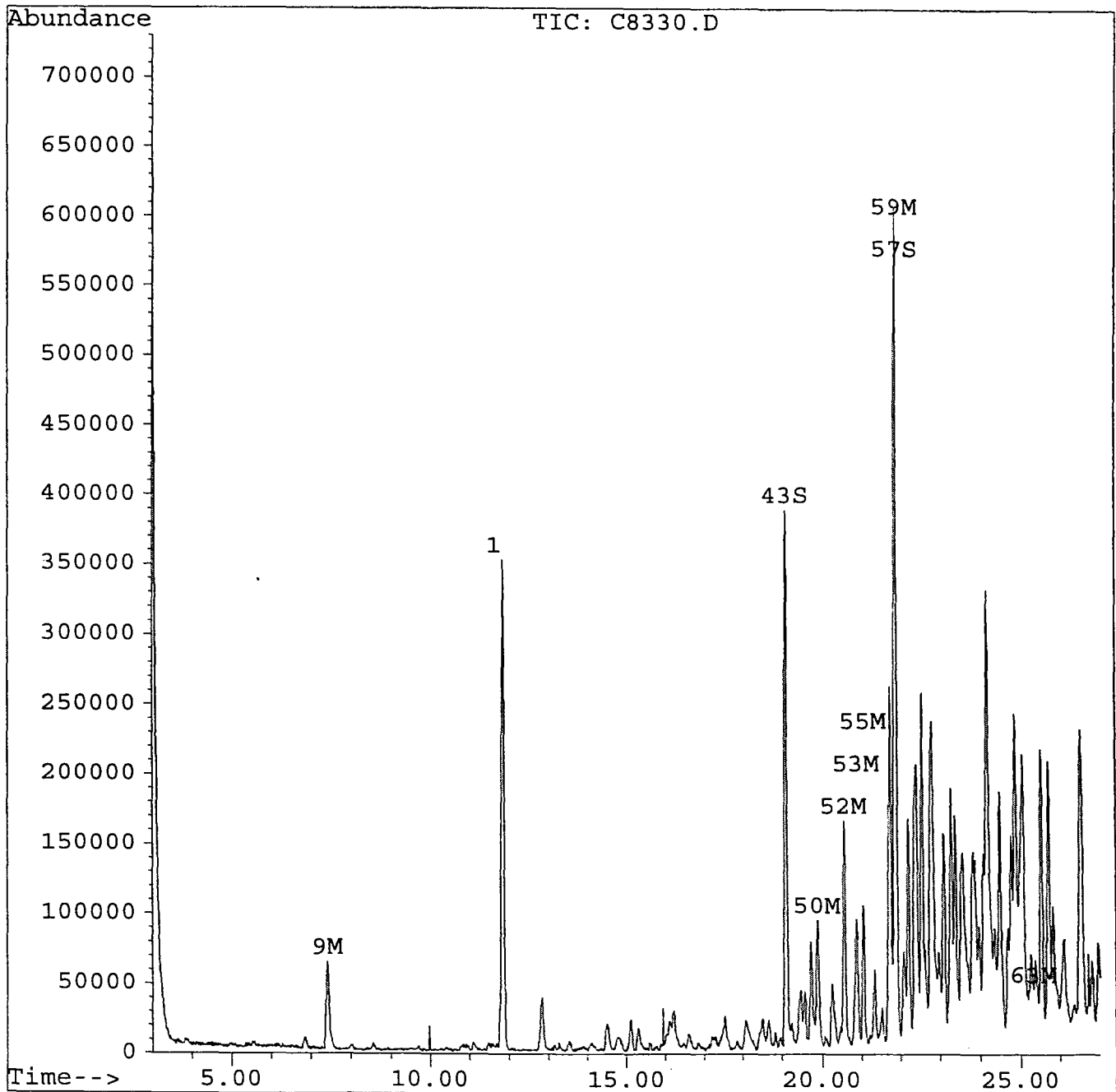
# Quantitation Report

Data File : d:\hpchem\1\data\c8330.d  
 Acq On : 2 Jun 95 4:26 pm  
 Sample : 9523339  
 Misc : 25 ML  
 Quant Time: Jun 3 14:34 1995

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

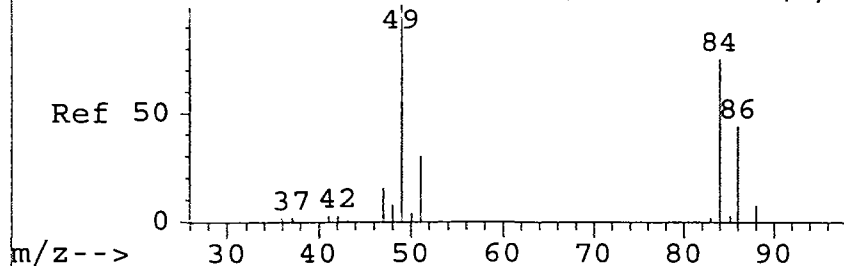
074

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration





AbundanceScan 418 (7.345 min): C5082.D (-, \*



#9

Methylene chloride

Concen: 1.94 ug/L

RT: 7.42 min Scan# 425

Delta R.T. 0.01 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:84 Resp: 73277

Ion Ratio Lower Upper

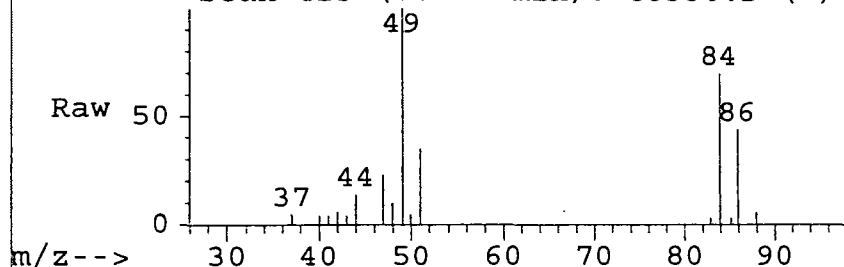
84 100

86 62.0 43.1 83.1

49 142.0 136.3 176.3

0 0.0 0.0 0.0

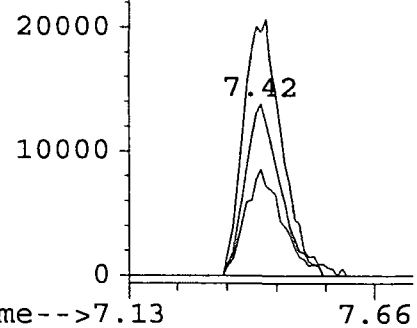
AbundanceScan 425 (7.415 min): C8330.D (\*)



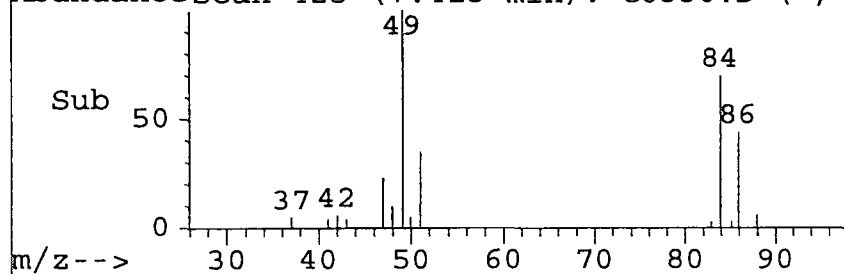
AbundanceIon 84.00 (83.

Ion 86.00 (85.

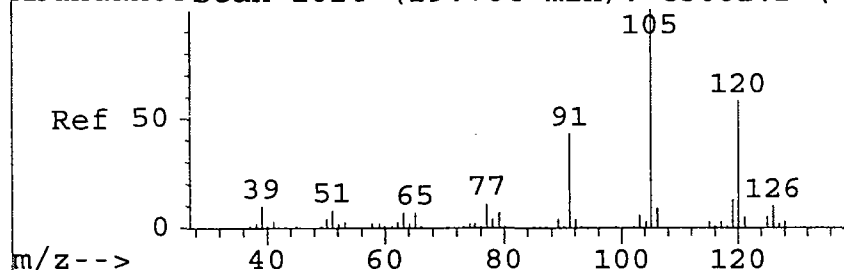
Ion 49.00 (48.



AbundanceScan 425 (7.415 min): C8330.D (-, \*



AbundanceScan 1624 (19.784 min): C5082.D (-



#50

1,3,5-Trimethylbenzene

Concen: 0.72 ug/L

RT: 19.88 min Scan# 1634

Delta R.T. -0.01 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:105 Resp: 110362

Ion Ratio Lower Upper

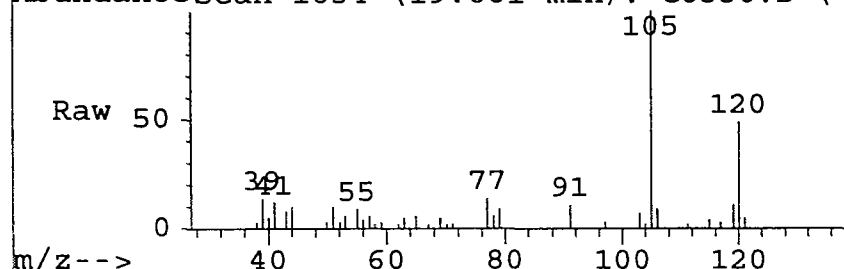
105 100

120 49.1 26.3 66.3

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1634 (19.881 min): C8330.D (\*)

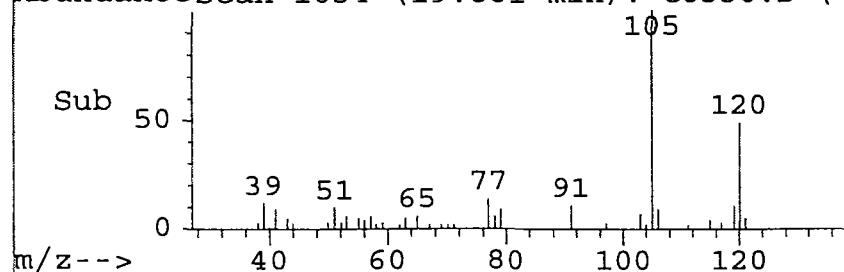


AbundanceIon 105.00 (104

Ion 120.00 (119

19.88

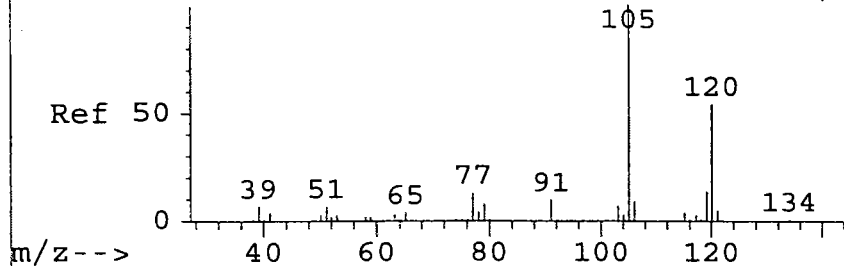
AbundanceScan 1634 (19.881 min): C8330.D (-



Time--&gt;19.72 20.02

076

AbundanceScan 1690 (20.465 min): C5082.D (-



#52

1,2,4-Trimethylbenzene

Concen: 1.54 ug/L

RT: 20.56 min Scan# 1700

Delta R.T. -0.00 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:105 Resp: 214490

Ion Ratio Lower Upper

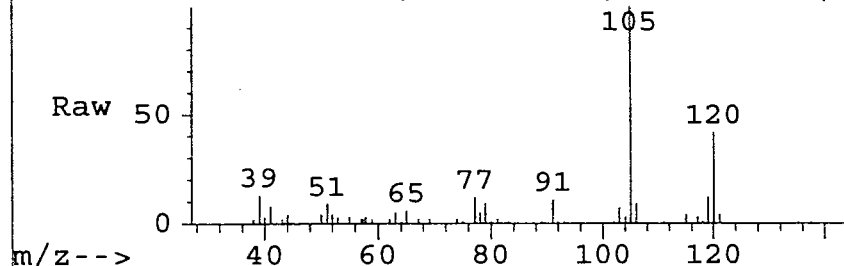
105 100

120 41.9 20.6 60.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1700 (20.561 min): C8330.D (\*)



Abundance Ion 105.00 (104

60000 Ion 120.00 (119

20.56

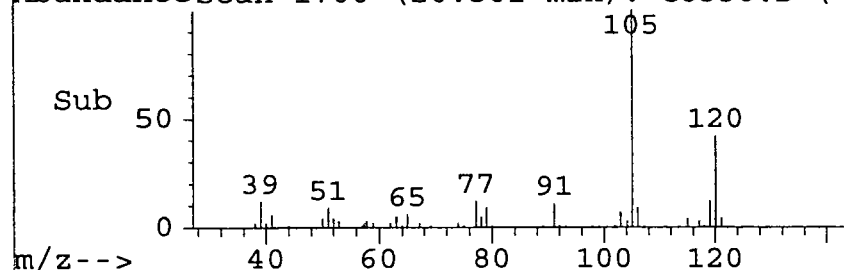
40000

20000

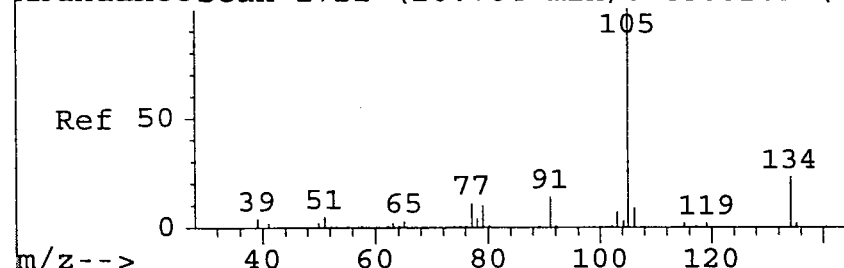
0

Time--&gt;20.35 20.73

AbundanceScan 1700 (20.561 min): C8330.D (-



AbundanceScan 1721 (20.784 min): C5082.D (-



#53

sec-Butylbenzene

Concen: 0.61 ug/L

RT: 20.88 min Scan# 1731

Delta R.T. -0.00 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:105 Resp: 141948

Ion Ratio Lower Upper

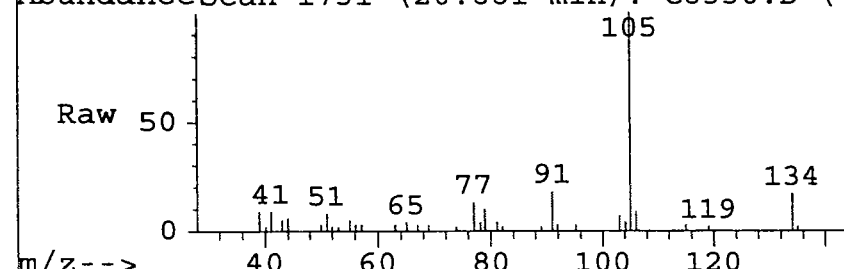
105 100

134 17.3 0.0 37.7

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1731 (20.881 min): C8330.D (\*)



Abundance Ion 105.00 (104

Ion 134.00 (133

20.88

30000

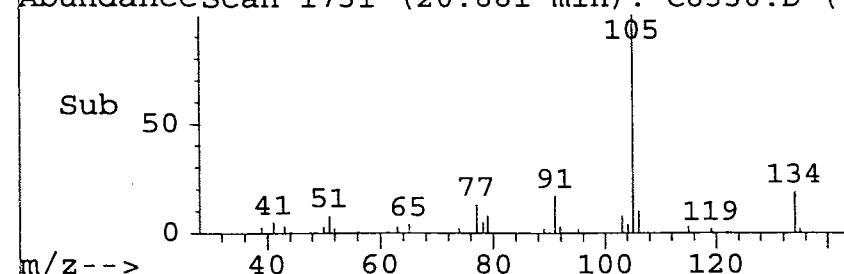
20000

10000

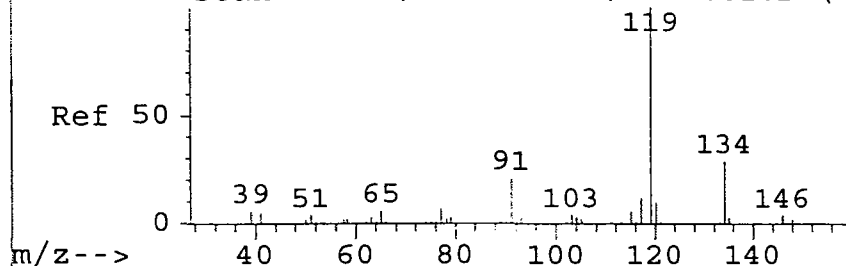
0

Time--&gt;20.65 21.02

AbundanceScan 1731 (20.881 min): C8330.D (-



AbundanceScan 1746 (21.042 min): C5082.D (-



#55

4-Isopropyltoluene

Concen: 0.75 ug/L

RT: 21.05 min Scan# 1747

Delta R.T. -0.09 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:119 Resp: 130415

Ion Ratio Lower Upper

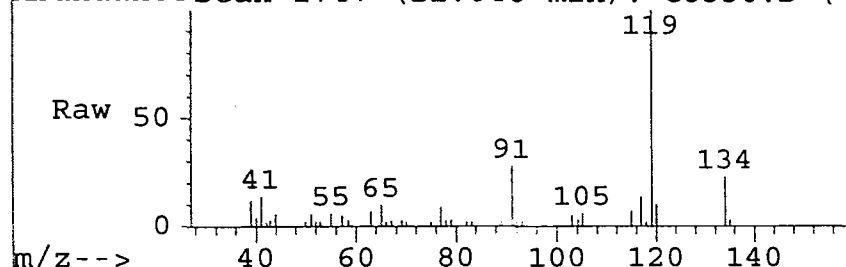
119 100

134 22.5 5.1 45.1

91 27.6 8.7 48.7

0 0.0 0.0 0.0

AbundanceScan 1747 (21.046 min): C8330.D (\*)



AbundanceIon 119.00 (118

Ion 134.00 (133

Ion 91.00 (90.

40000

30000

20000

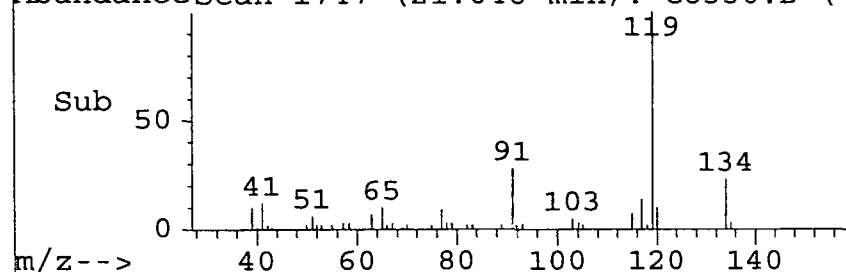
10000

0

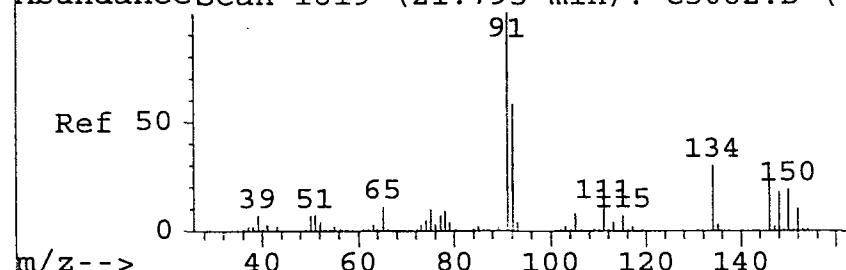
21.05

Time--&gt;20.80 21.25

AbundanceScan 1747 (21.046 min): C8330.D (-



AbundanceScan 1819 (21.795 min): C5082.D (-



#59

n-Butylbenzene

Concen: 0.77 ug/L

RT: 21.88 min Scan# 1828

Delta R.T. -0.01 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

Tgt Ion:91 Resp: 145111

Ion Ratio Lower Upper

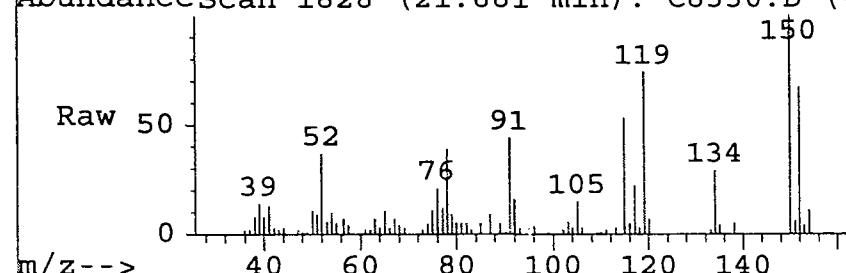
91 100

134 65.6 1.7 41.7#

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1828 (21.881 min): C8330.D (\*)



AbundanceIon 91.00 (90.

Ion 134.00 (133

30000

20000

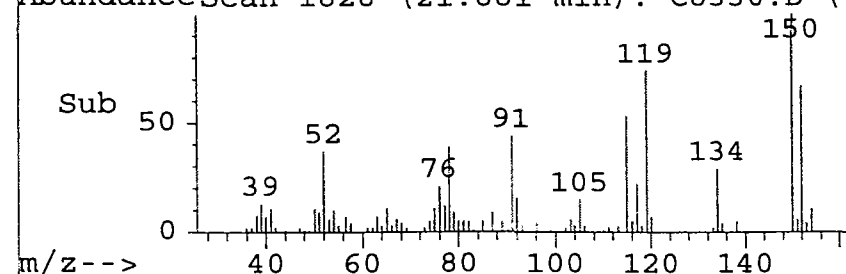
10000

0

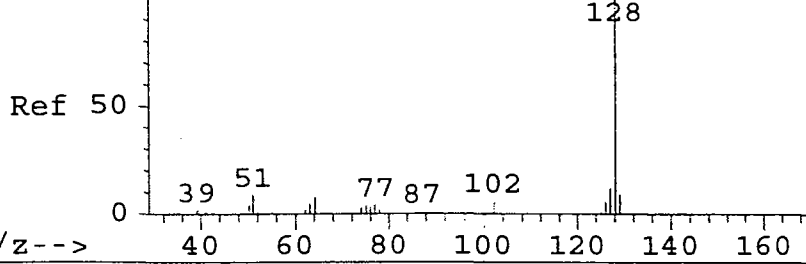
21.88

Time--&gt;21.68 22.04

AbundanceScan 1828 (21.881 min): C8330.D (-



AbundanceScan 2152 (25.230 min): C5082.D (-



#63

Naphthalene

Concen: 0.82 ug/L

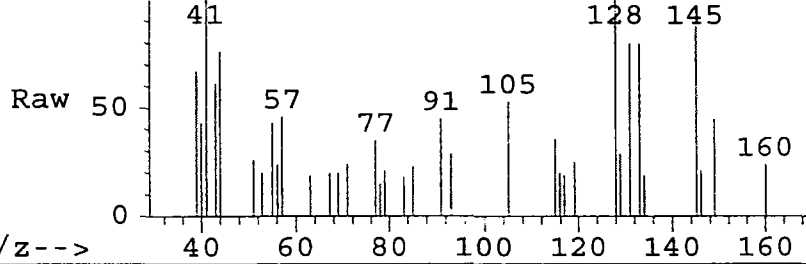
RT: 25.33 min Scan# 2163

Delta R.T. -0.00 min

Lab File: c8330.d

Acq: 2 Jun 95 4:26 pm

AbundanceScan 2163 (25.335 min): C8330.D (\*)



Tgt Ion:128 Resp: 26399

Ion Ratio Lower Upper

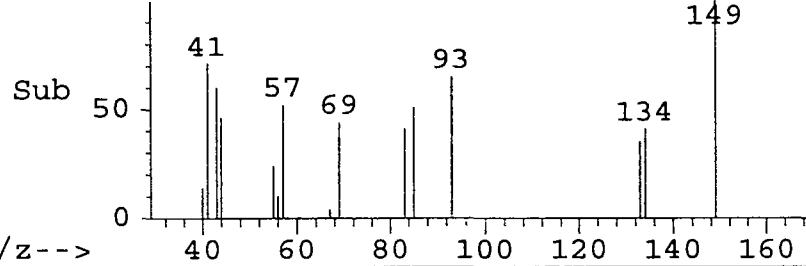
128 100

0 0.0 0.0 0.0

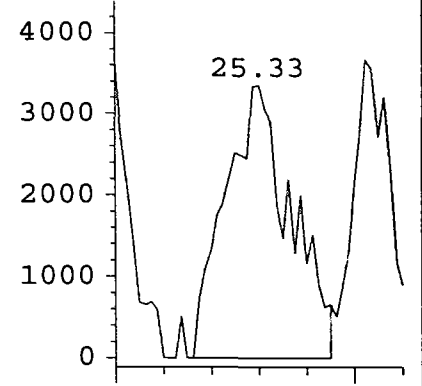
0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 2163 (25.335 min): C8330.D (-



AbundanceIon 128.00 (127



## Library Search Compound Report

079

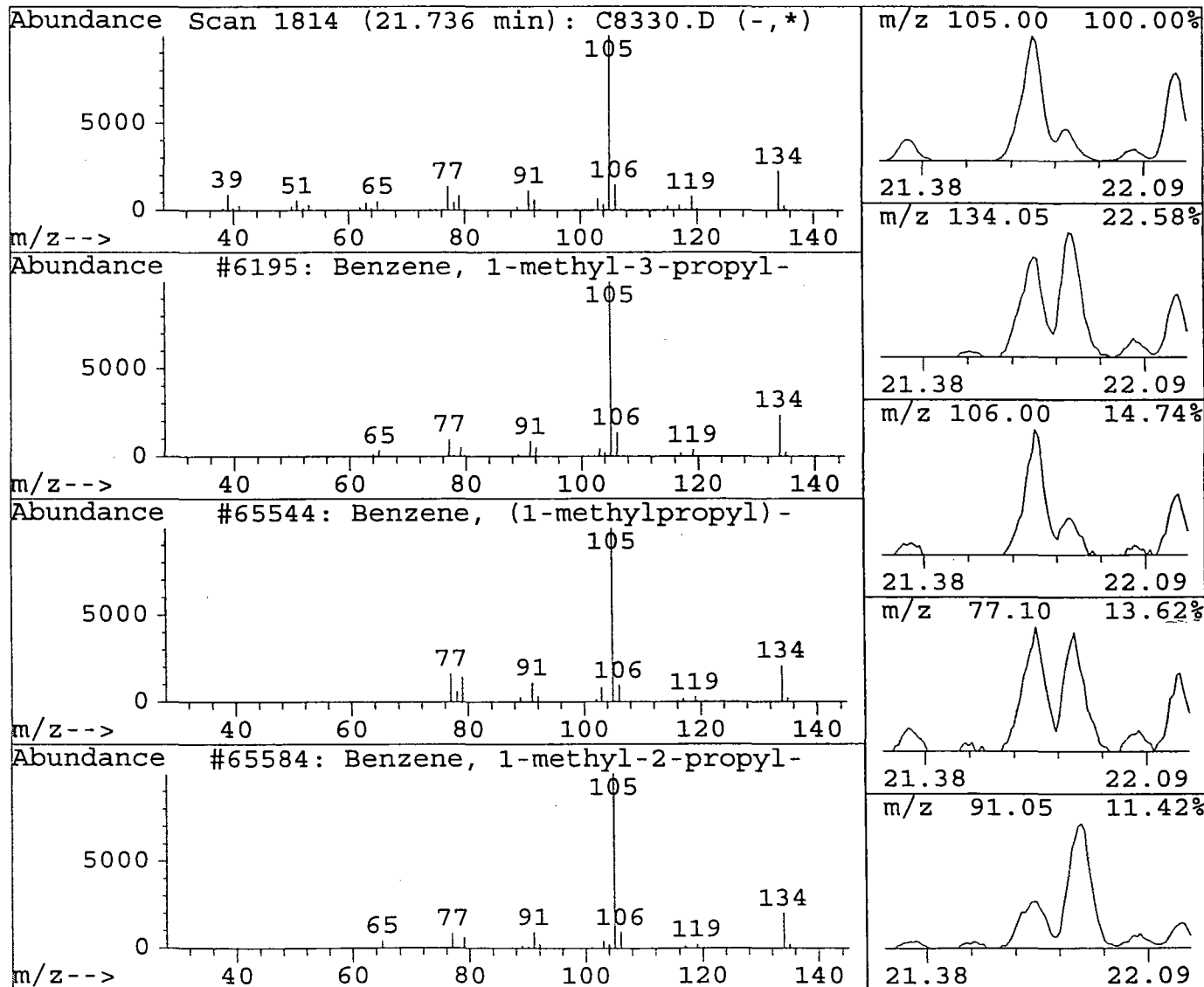
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area    | Relative to ISTD | R.T.  |
|-------|-----------|---------|------------------|-------|
| 21.74 | 3.35 ug/L | 1065362 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 1-methyl-3-propyl-         | 6195  | 001074-43-7 | 94   |
| 2          | Benzene, (1-methylpropyl)-          | 65544 | 000135-98-8 | 87   |
| 3          | Benzene, 1-methyl-2-propyl-         | 65584 | 001074-17-5 | 91   |
| 4          | Benzene, 1-methyl-4-propyl-         | 6216  | 001074-55-1 | 91   |
| 5          | Benzeneacetaldehyde, .alpha.-methyl | 65510 | 000093-53-8 | 32   |

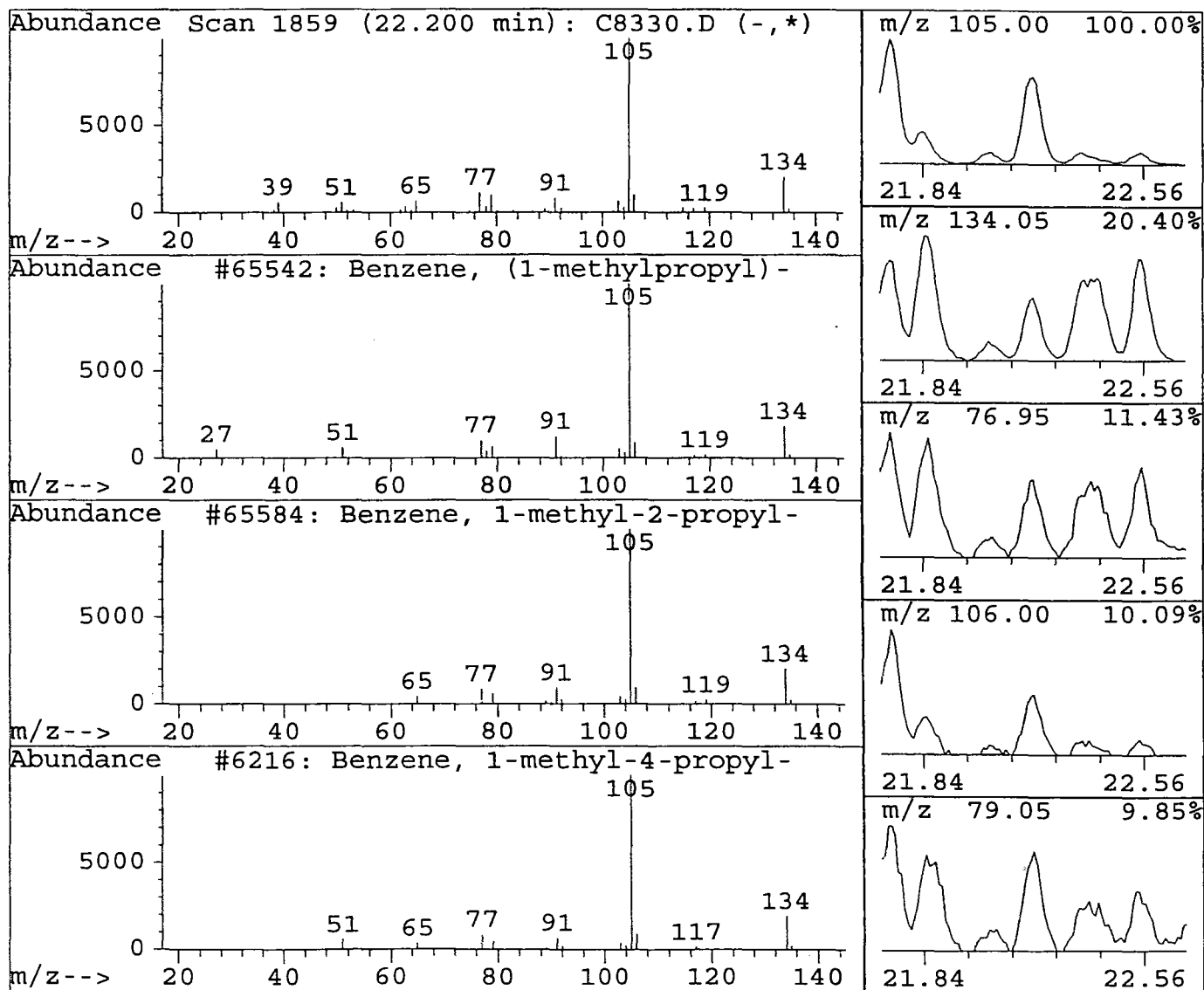


Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 22.20      | 1.91 ug/L                           | 608402 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Benzene, (1-methylpropyl)-          |        | 65542            | 000135-98-8 | 91   |
| 2          | Benzene, 1-methyl-2-propyl-         |        | 65584            | 001074-17-5 | 94   |
| 3          | Benzene, 1-methyl-4-propyl-         |        | 6216             | 001074-55-1 | 91   |
| 4          | Benzene, 1-methyl-3-propyl-         |        | 65527            | 001074-43-7 | 91   |
| 5          | Benzeneacetaldehyde, .alpha.-methyl |        | 65510            | 000093-53-8 | 38   |



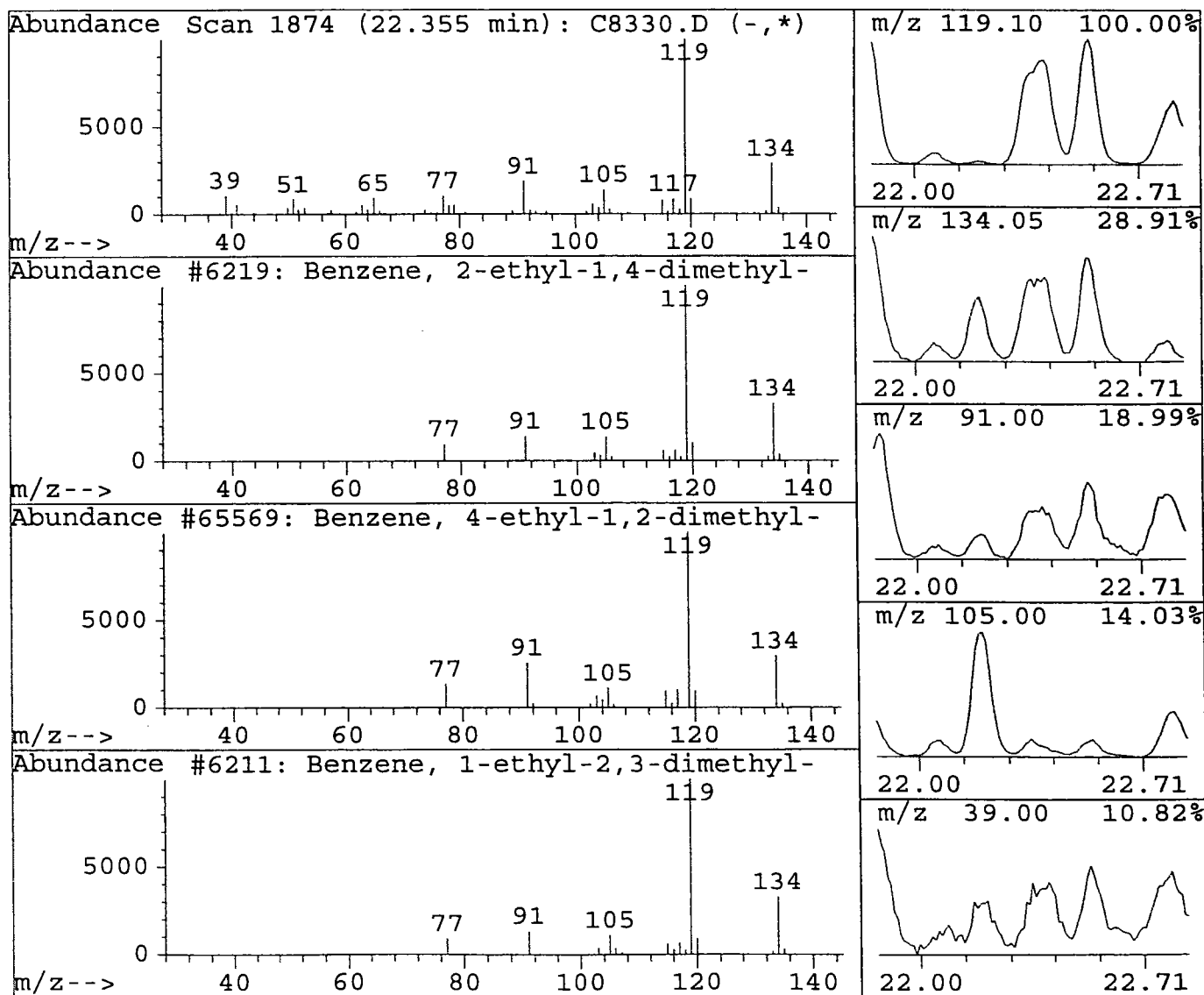
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.36 | 1.47 ug/L | 467243 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 2-ethyl-1,4-dimethyl-      | 6219  | 001758-88-9 | 95   |
| 2          | Benzene, 4-ethyl-1,2-dimethyl-      | 65569 | 000934-80-5 | 97   |
| 3          | Benzene, 1-ethyl-2,3-dimethyl-      | 6211  | 000933-98-2 | 91   |
| 4          | Benzene, 1-ethyl-3,5-dimethyl-      | 6210  | 000934-74-7 | 87   |
| 5          | Benzene, 1-methyl-2-(1-methylethyl) | 65581 | 000527-84-4 | 95   |

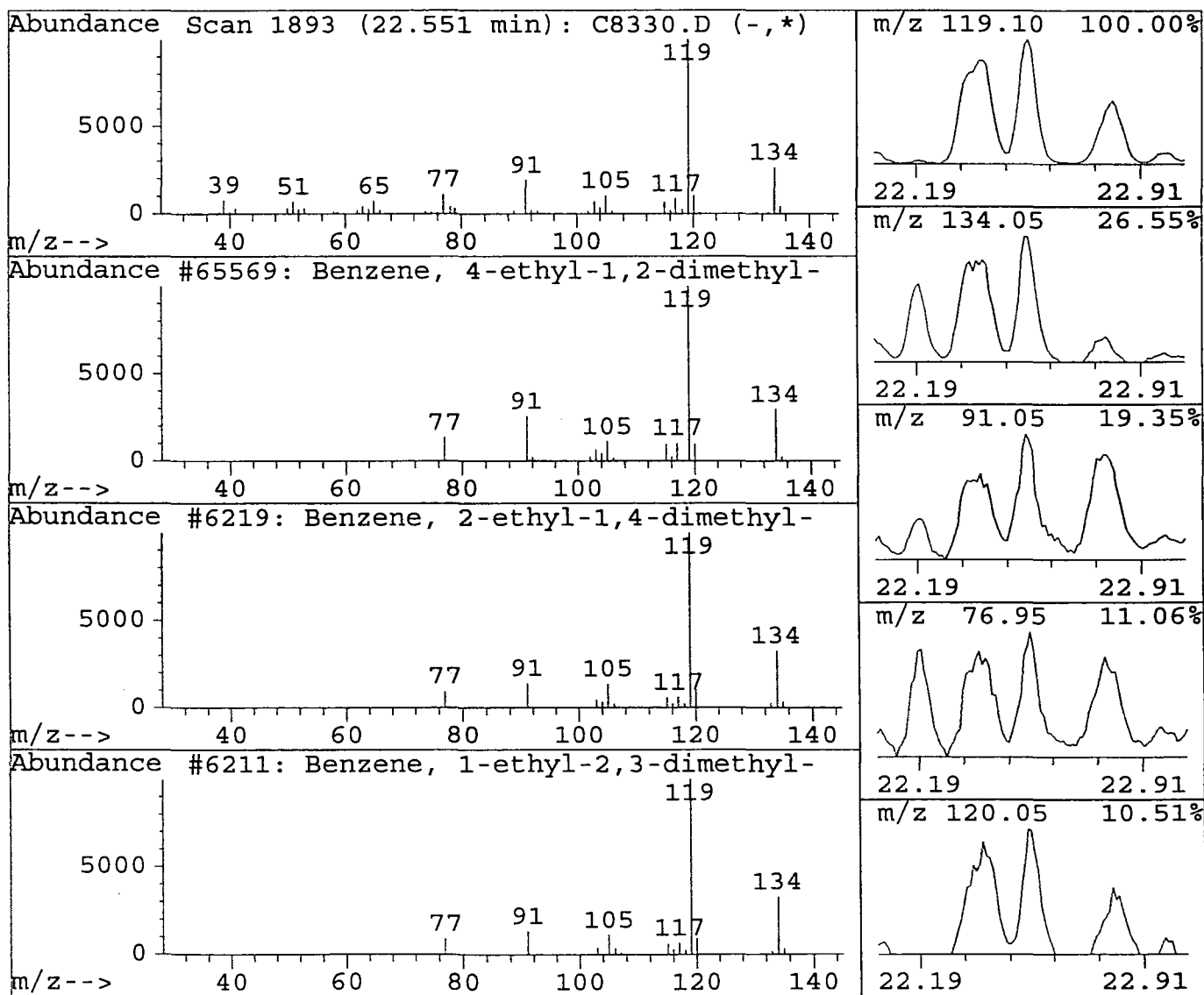


Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 22.55      | 2.54 ug/L                           | 807222 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Benzene, 4-ethyl-1,2-dimethyl-      |        | 65569            | 000934-80-5 | 96   |
| 2          | Benzene, 2-ethyl-1,4-dimethyl-      |        | 6219             | 001758-88-9 | 94   |
| 3          | Benzene, 1-ethyl-2,3-dimethyl-      |        | 6211             | 000933-98-2 | 91   |
| 4          | Benzene, 1-ethyl-3,5-dimethyl-      |        | 65554            | 000934-74-7 | 91   |
| 5          | Benzene, 1-methyl-2-(1-methylethyl) |        | 65581            | 000527-84-4 | 95   |





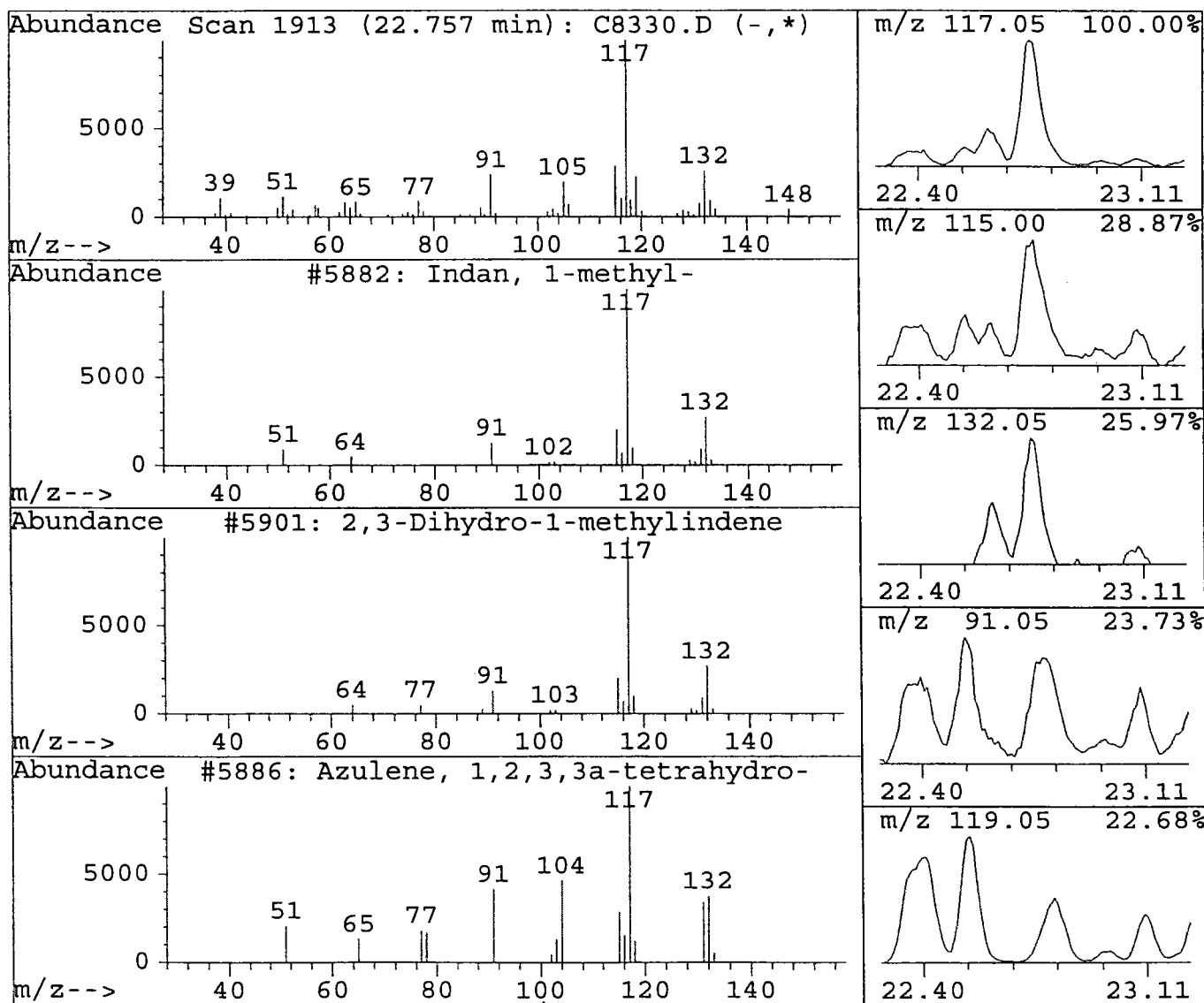
Data File : d:\hpcchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.76 | 1.44 ug/L | 457095 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                      | Ref# | CAS#        | Qual |
|------------|-----------------------------------|------|-------------|------|
| 1          | Indan, 1-methyl-                  | 5882 | 000767-58-8 | 58   |
| 2          | 2,3-Dihydro-1-methylindene        | 5901 | 027133-93-3 | 52   |
| 3          | Azulene, 1,2,3,3a-tetrahydro-     | 5886 | 033877-87-1 | 35   |
| 4          | Benzene, 1-methyl-2-(2-propenyl)- | 5884 | 001587-04-8 | 46   |
| 5          | 1H-Indene, 2,3-dihydro-4-methyl-  | 5893 | 000824-22-6 | 38   |

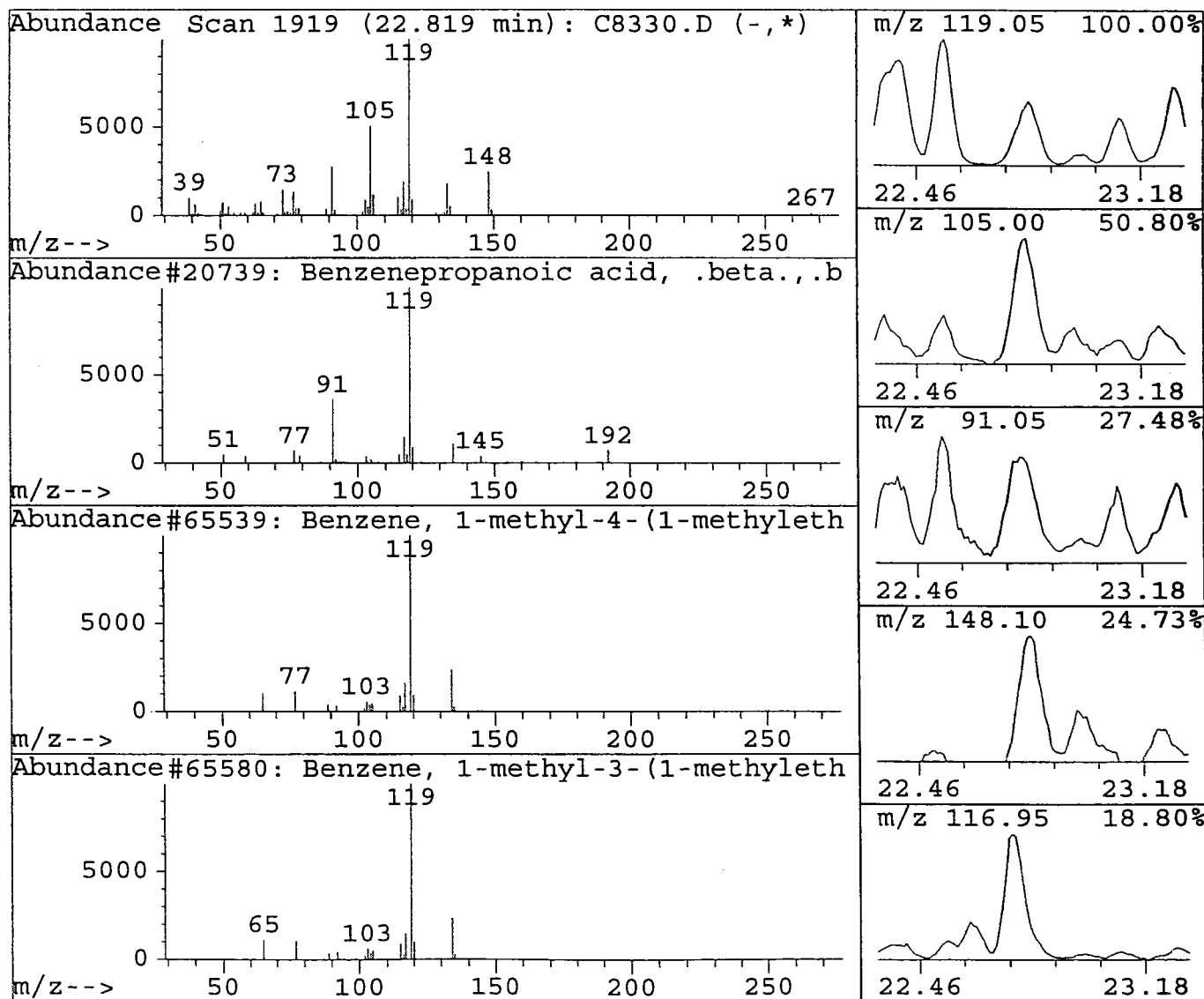


Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 22.82      | 1.32 ug/L                           | 419234 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Benzenepropanoic acid, .beta.,.beta |        | 20739            | 025080-84-6 | 38   |
| 2          | Benzene, 1-methyl-4-(1-methylethyl) |        | 65539            | 000099-87-6 | 38   |
| 3          | Benzene, 1-methyl-3-(1-methylethyl) |        | 65580            | 000535-77-3 | 47   |
| 4          | Benzene, isocyanato-                |        | 64500            | 000103-71-9 | 37   |
| 5          | Benzene, 2-ethyl-1,3-dimethyl-      |        | 65533            | 002870-04-4 | 47   |



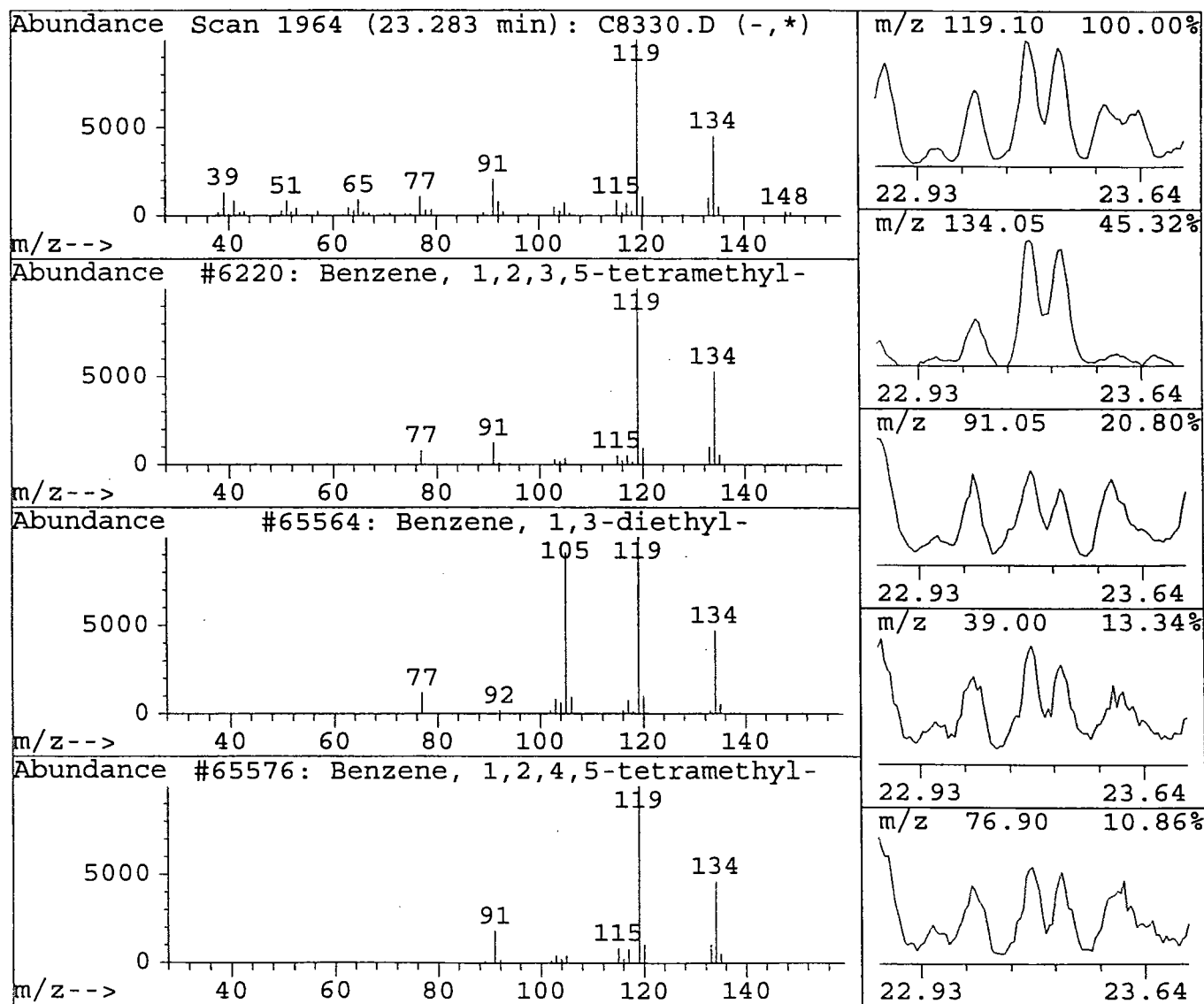
085

Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                           | Area   | Relative to ISTD | R.T.        |      |
|------------|--------------------------------|--------|------------------|-------------|------|
| 23.28      | 2.17 ug/L                      | 691301 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                   |        | Ref#             | CAS#        | Qual |
| 1          | Benzene, 1,2,3,5-tetramethyl-  |        | 6220             | 000527-53-7 | 90   |
| 2          | Benzene, 1,3-diethyl-          |        | 65564            | 000141-93-5 | 80   |
| 3          | Benzene, 1,2,4,5-tetramethyl-  |        | 65576            | 000095-93-2 | 87   |
| 4          | Benzene, 1-ethyl-3,5-dimethyl- |        | 65554            | 000934-74-7 | 87   |
| 5          | Benzene, 1,4-diethyl-          |        | 65558            | 000105-05-5 | 83   |



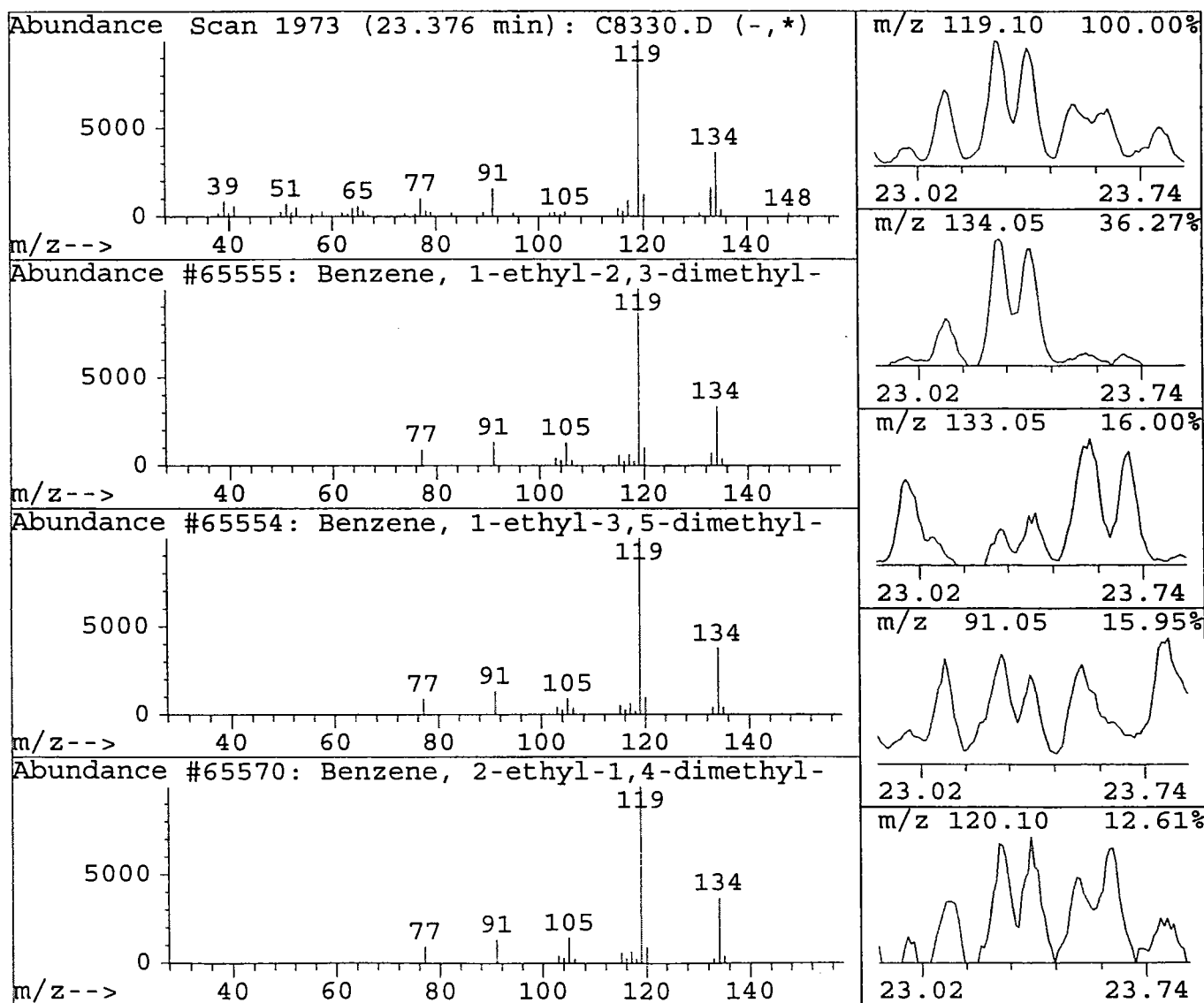
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 23.38 | 1.31 ug/L | 415488 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 1-ethyl-2,3-dimethyl-      | 65555 | 000933-98-2 | 86   |
| 2          | Benzene, 1-ethyl-3,5-dimethyl-      | 65554 | 000934-74-7 | 87   |
| 3          | Benzene, 2-ethyl-1,4-dimethyl-      | 65570 | 001758-88-9 | 86   |
| 4          | Benzene, 1-methyl-4-(1-methylethyl) | 65535 | 000099-87-6 | 86   |
| 5          | Benzene, 4-ethyl-1,2-dimethyl-      | 65568 | 000934-80-5 | 83   |



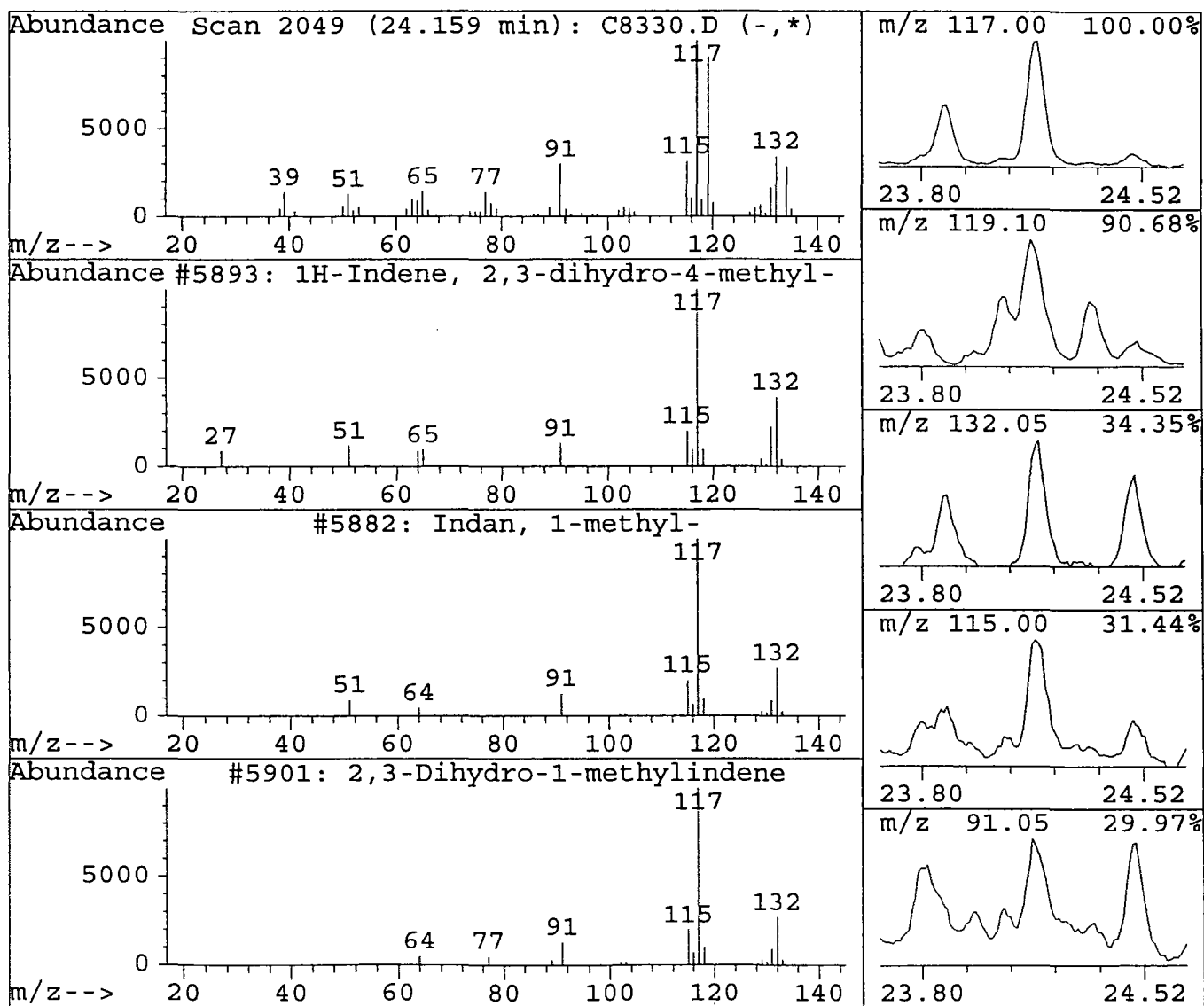
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 24.16 | 1.51 ug/L | 479329 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | 1H-Indene, 2,3-dihydro-4-methyl-    | 5893  | 000824-22-6 | 55   |
| 2          | Indan, 1-methyl-                    | 5882  | 000767-58-8 | 53   |
| 3          | 2,3-Dihydro-1-methylindene          | 5901  | 027133-93-3 | 49   |
| 4          | Benzene, 1-methyl-4-(1-methylethyl) | 65539 | 000099-87-6 | 46   |
| 5          | Benzene, (2-methyl-2-propenyl)-     | 65427 | 003290-53-7 | 42   |



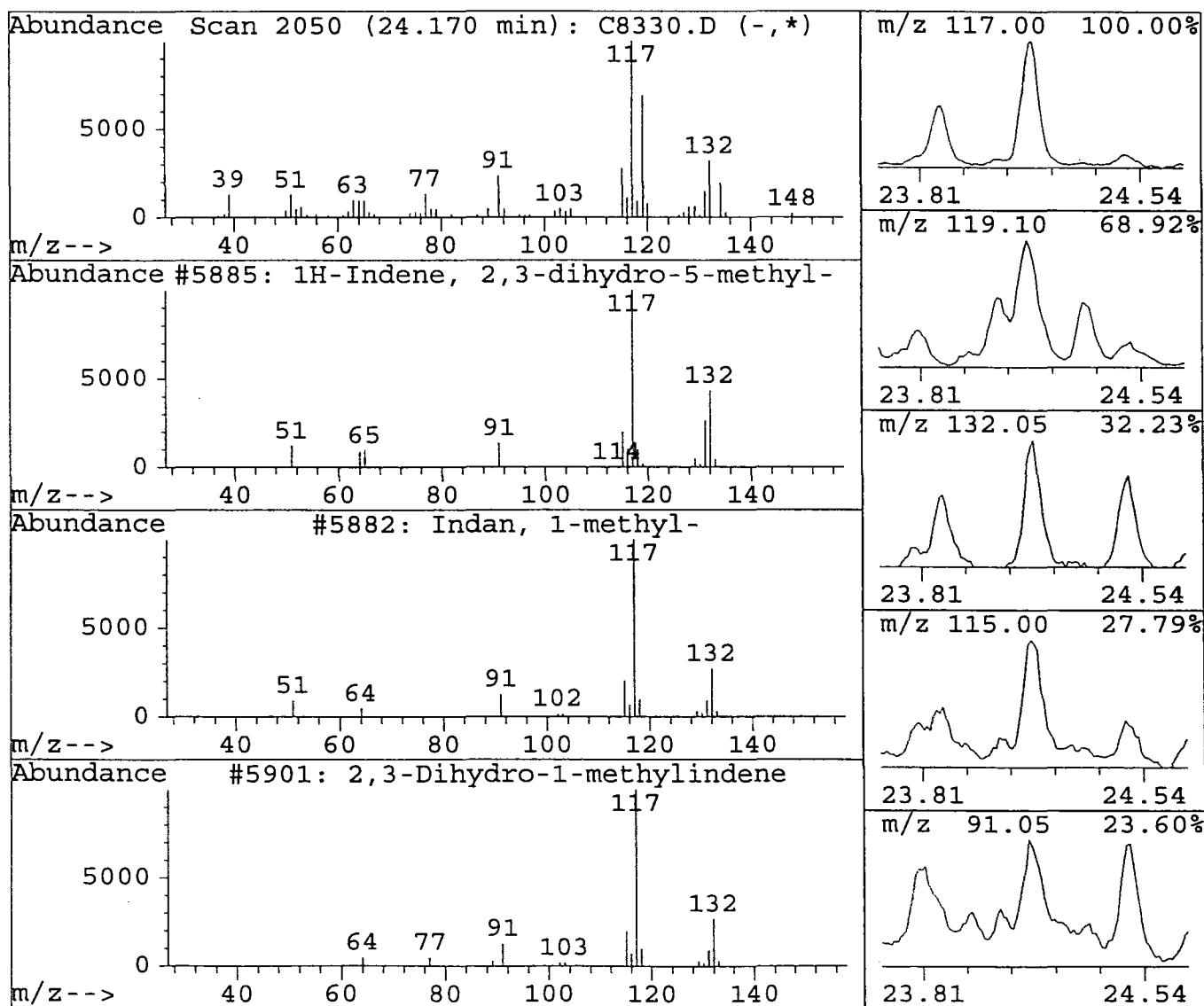
Data File : d:\hpcchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 24.17 | 1.35 ug/L | 430719 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                         | Ref# | CAS#        | Qual |
|------------|--------------------------------------|------|-------------|------|
| 1          | 1H-Indene, 2,3-dihydro-5-methyl-     | 5885 | 000874-35-1 | 43   |
| 2          | Indan, 1-methyl-                     | 5882 | 000767-58-8 | 62   |
| 3          | 2,3-Dihydro-1-methylindene           | 5901 | 027133-93-3 | 70   |
| 4          | 1H-Indene, 2,3-dihydro-4-methyl-     | 5893 | 000824-22-6 | 58   |
| 5          | Benzene, (1-methyl-1-propenyl)-, (Z) | 5904 | 000767-99-7 | 38   |



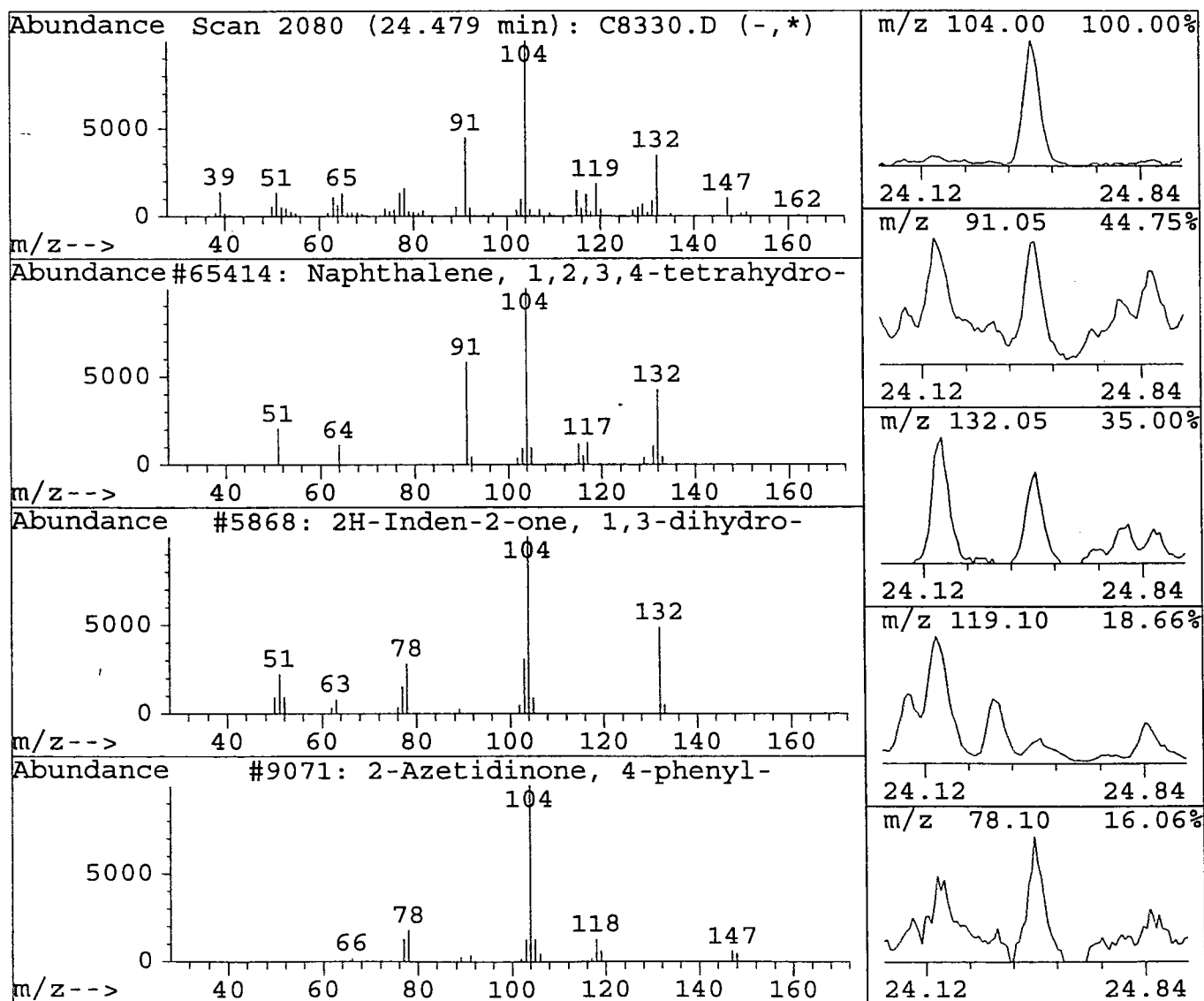
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 24.48 | 1.64 ug/L | 522379 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                     | Ref#  | CAS#        | Qual |
|------------|----------------------------------|-------|-------------|------|
| 1          | Naphthalene, 1,2,3,4-tetrahydro- | 65414 | 000119-64-2 | 49   |
| 2          | 2H-Inden-2-one, 1,3-dihydro-     | 5868  | 000615-13-4 | 30   |
| 3          | 2-Azetidinone, 4-phenyl-         | 9071  | 005661-55-2 | 38   |
| 4          | Benzene, 4-pentenyl-             | 66492 | 001075-74-7 | 33   |
| 5          | Benzene, 3-cyclohexen-1-yl-      | 12107 | 004994-16-5 | 50   |

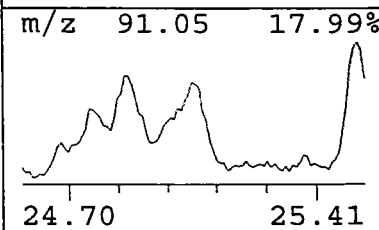
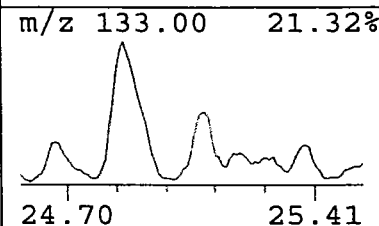
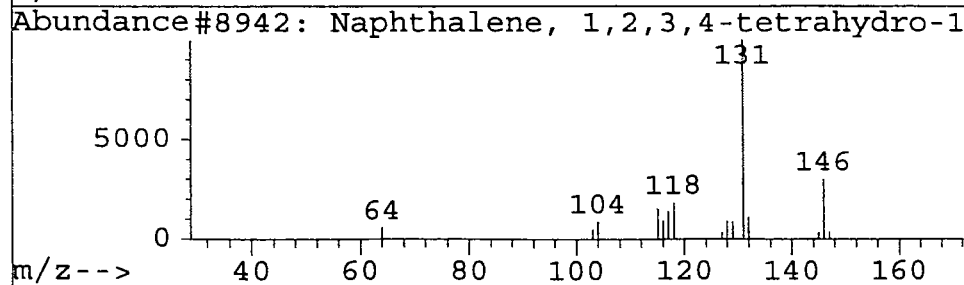
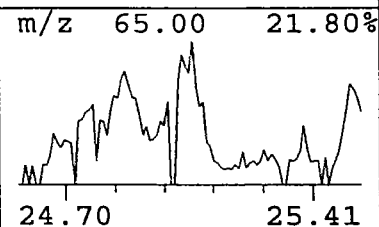
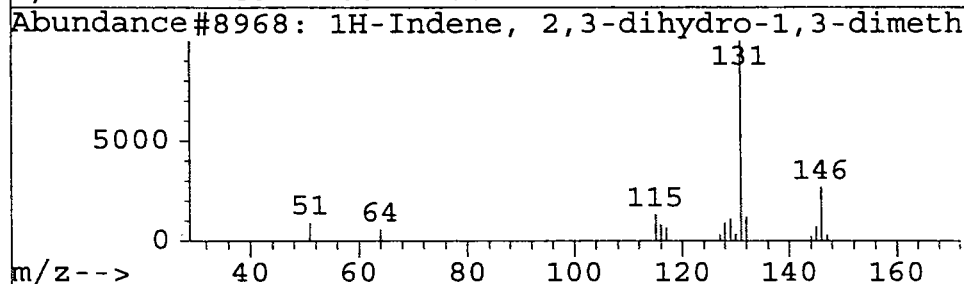
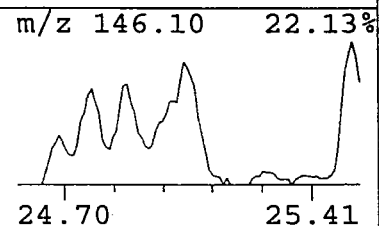
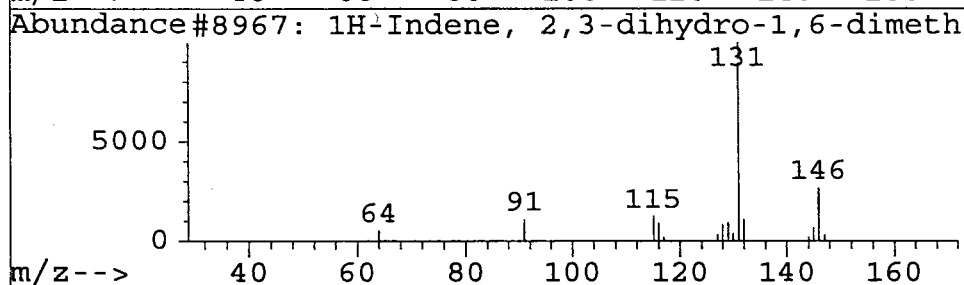
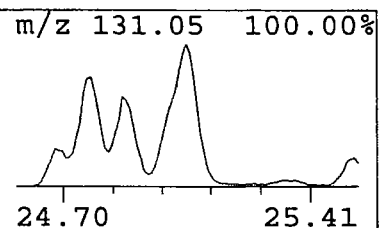
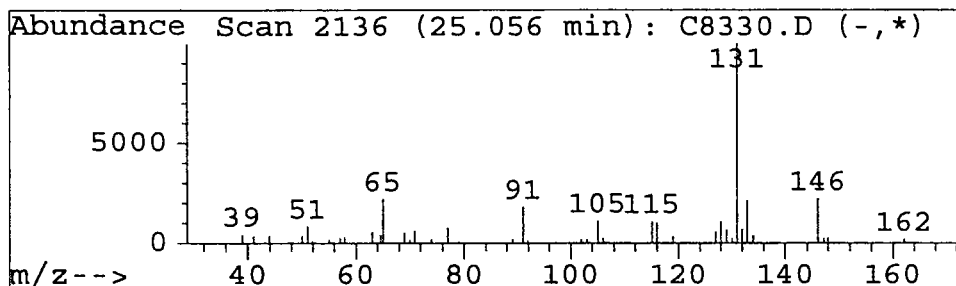


Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 25.06      | 1.55 ug/L                           | 493809 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | 1H-Indene, 2,3-dihydro-1,6-dimethyl |        | 8967             | 017059-48-2 | 38   |
| 2          | 1H-Indene, 2,3-dihydro-1,3-dimethyl |        | 8968             | 004175-53-5 | 45   |
| 3          | Naphthalene, 1,2,3,4-tetrahydro-1-m |        | 8942             | 001559-81-5 | 43   |
| 4          | 1H-Indene, 2,3-dihydro-1,2-dimethyl |        | 8947             | 017057-82-8 | 25   |
| 5          | 1H-Indene, 2,3-dihydro-1,1-dimethyl |        | 8945             | 004912-92-9 | 16   |





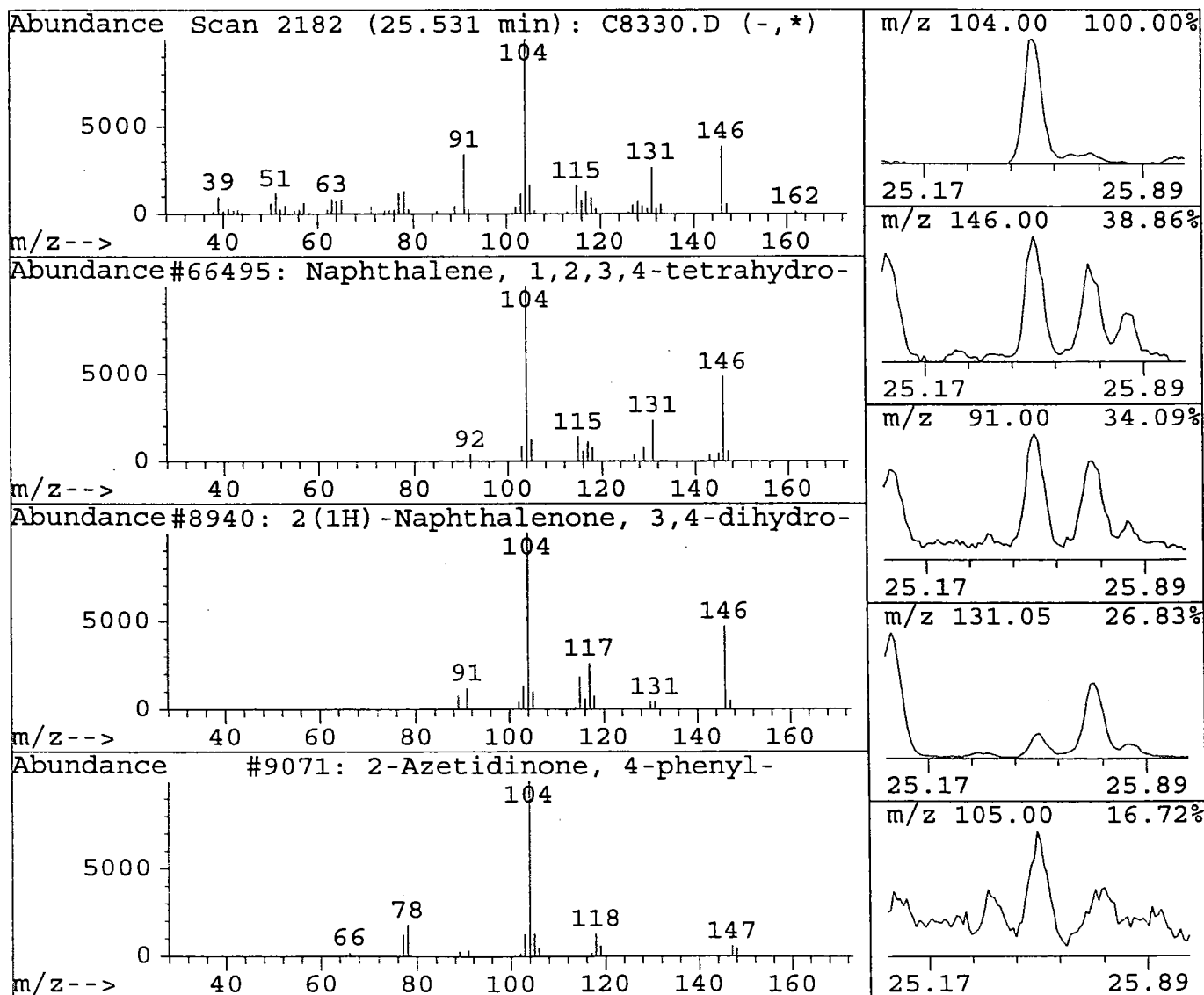
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 25.53 | 2.09 ug/L | 663631 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Naphthalene, 1,2,3,4-tetrahydro-2-m | 66495 | 003877-19-8 | 52   |
| 2          | 2(1H)-Naphthalenone, 3,4-dihydro-   | 8940  | 000530-93-8 | 64   |
| 3          | 2-Azetidinone, 4-phenyl-            | 9071  | 005661-55-2 | 46   |
| 4          | Benzene, 3-cyclohexen-1-yl-         | 12107 | 004994-16-5 | 32   |
| 5          | Acetamide, n-ethyl-N-phenyl-        | 67745 | 000529-65-7 | 25   |



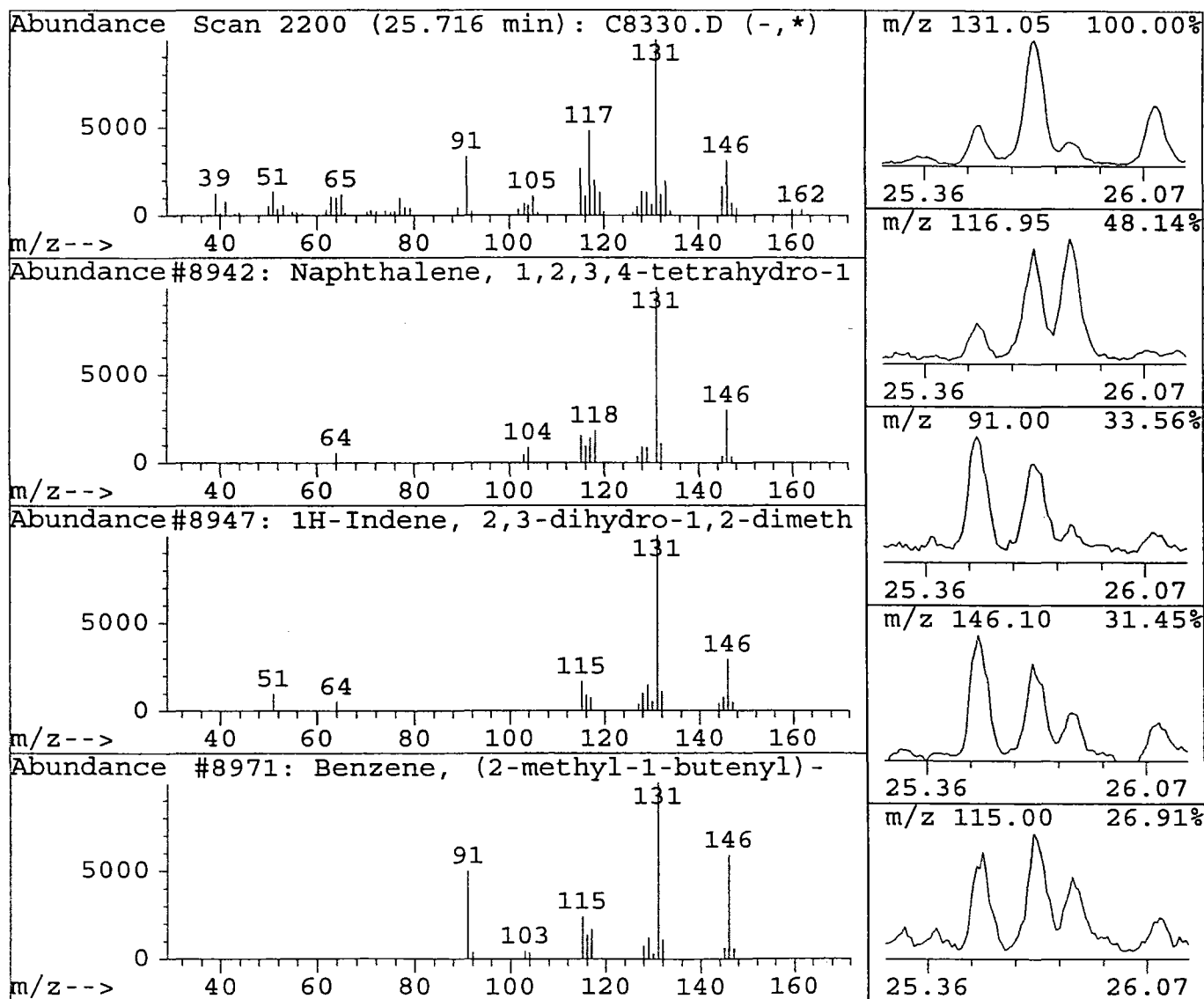
Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5 **092**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 25.72 | 1.67 ug/L | 530997 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref# | CAS#        | Qual |
|------------|-------------------------------------|------|-------------|------|
| 1          | Naphthalene, 1,2,3,4-tetrahydro-1-m | 8942 | 001559-81-5 | 70   |
| 2          | 1H-Indene, 2,3-dihydro-1,2-dimethyl | 8947 | 017057-82-8 | 90   |
| 3          | Benzene, (2-methyl-1-butenyl)-      | 8971 | 056253-64-6 | 30   |
| 4          | 1H-Indene, 2,3-dihydro-1,3-dimethyl | 8968 | 004175-53-5 | 60   |
| 5          | Benzene, (1,1-dimethyl-2-propenyl)- | 8972 | 018321-36-3 | 47   |

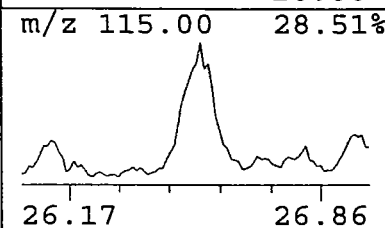
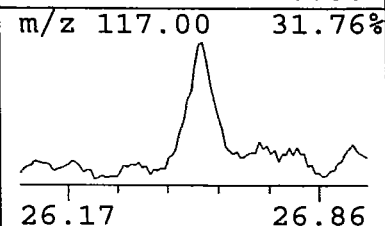
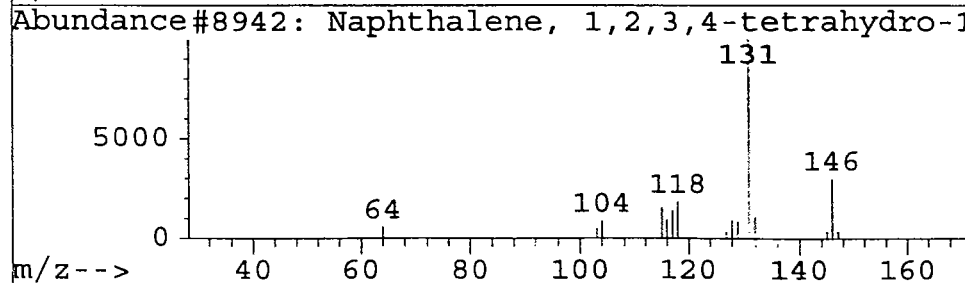
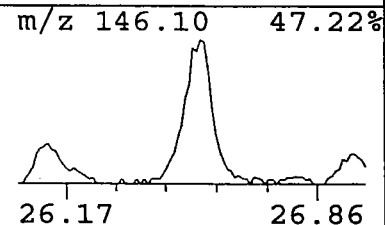
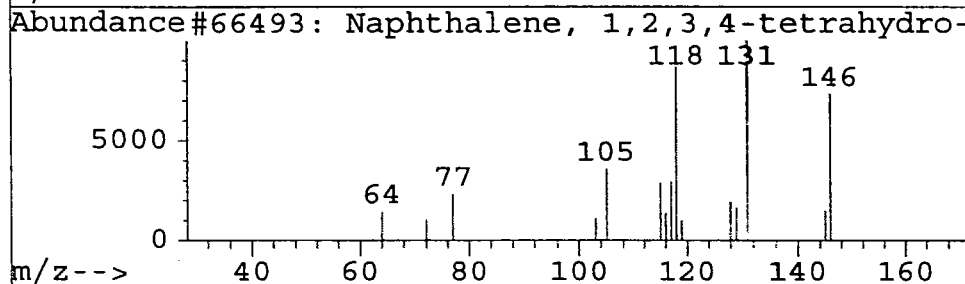
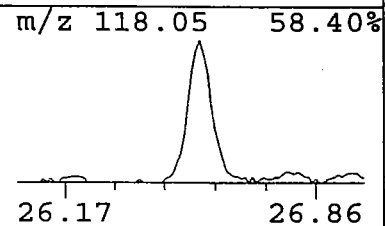
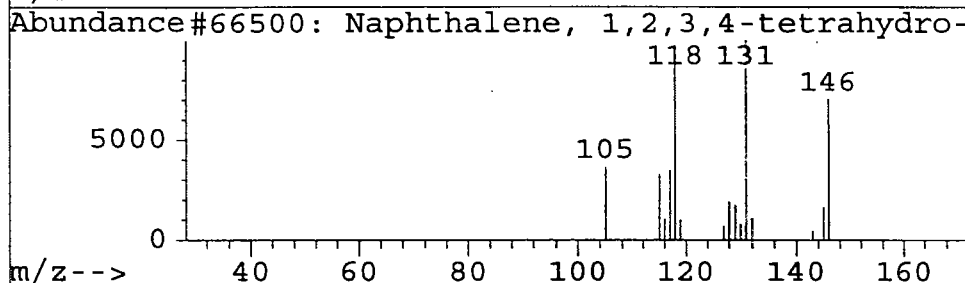
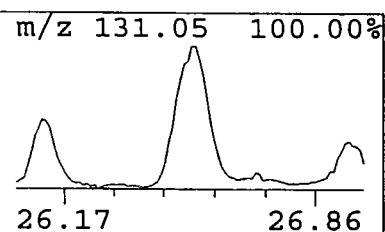
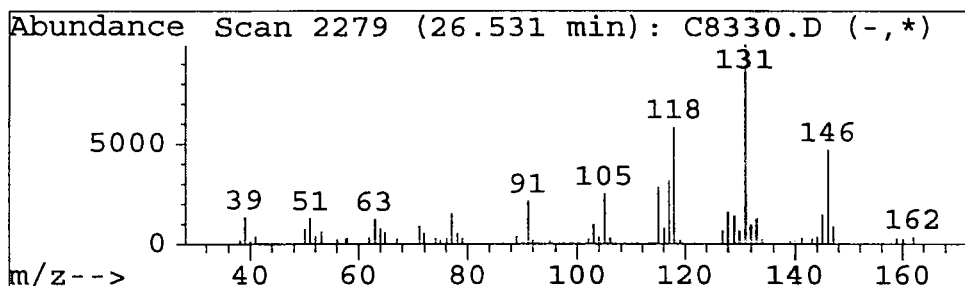


Data File : d:\hpchem\1\data\c8330.d  
Acq On : 2 Jun 95 4:26 pm  
Sample : 9523339  
Misc : 25 ML

Vial: 5 093  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 26.53      | 1.72 ug/L                           | 546381 | Fluorobenzene    | 11.84       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Naphthalene, 1,2,3,4-tetrahydro-6-m |        | 66500            | 001680-51-9 | 76   |
| 2          | Naphthalene, 1,2,3,4-tetrahydro-5-m |        | 66493            | 002809-64-5 | 64   |
| 3          | Naphthalene, 1,2,3,4-tetrahydro-1-m |        | 8942             | 001559-81-5 | 43   |
| 4          | Benzene, (2-methyl-1-butenyl)-      |        | 66502            | 056253-64-6 | 47   |
| 5          | 1H-Indene, 2,3-dihydro-1,2-dimethyl |        | 8947             | 017057-82-8 | 30   |



1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
 Matrix (soil/water): WATER  
 Sample wt/vol: 25 mL  
 Level (low/med): LOW  
 % Moisture: not dec.: NA  
 GC Column: DB-624 x 75m ID: 0.53mm  
 Soil Extract Volume: NA

Lab Sample ID: 9523340 TB  
 Lab File ID: C8331.D  
 Date Received: 05/22/95  
 Date Analyzed: 06/02/95  
 Dilution Factor: 1  
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 6.4 | B |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .80 |   |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: 9523340 TB  
 Matrix (soil/water): WATER Lab File ID: C8331.D  
 Sample wt/vol: 25 mL Date Received: 05/22/95  
 Level (low/med): LOW Date Analyzed: 06/02/95  
 % Moisture: not dec.: NA Dilution Factor: 1  
 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA  
 Soil Extract Volume: NA

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .60 |   |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8----- | sec-Butylbenzene            | .50 | U |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .50 | U |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .50 | U |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |

## COMMENT

U= Not Detected

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

096

9523340V  
TB

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 9523340V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8331.D

Level: (low/med) LOW

Date Received: 5/22/95

% Moisture: not dec. NA

Date Analyzed: 6/2/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT    | Est. Conc. | Q |
|------------|---------------|-------|------------|---|
| 1.         | Column Bleed  | 22.87 | 1          | J |
| 2.         |               |       |            |   |
| 3.         |               |       |            |   |
| 4.         |               |       |            |   |
| 5.         |               |       |            |   |
| 6.         |               |       |            |   |
| 7.         |               |       |            |   |
| 8.         |               |       |            |   |
| 9.         |               |       |            |   |
| 10.        |               |       |            |   |
| 11.        |               |       |            |   |
| 12.        |               |       |            |   |
| 13.        |               |       |            |   |
| 14.        |               |       |            |   |
| 15.        |               |       |            |   |
| 16.        |               |       |            |   |
| 17.        |               |       |            |   |
| 18.        |               |       |            |   |
| 19.        |               |       |            |   |
| 20.        |               |       |            |   |
| 21.        |               |       |            |   |
| 22.        |               |       |            |   |
| 23.        |               |       |            |   |
| 24.        |               |       |            |   |
| 25.        |               |       |            |   |
| 26.        |               |       |            |   |
| 27.        |               |       |            |   |
| 28.        |               |       |            |   |
| 29.        |               |       |            |   |
| 30.        |               |       |            |   |

## Quantitation Report

097

Data File : d:\hpchem\1\data\c8331.d  
Acq On : 2 Jun 95 5:03 pm  
Sample : 9523340  
Misc : 25 ML  
Quant Time: Jun 3 14:13 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.84 | 96   | 590801   | 5.00 | ug/L  | 0.00     |

| System Monitoring Compounds |       |     |        |           | %Recovery |
|-----------------------------|-------|-----|--------|-----------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95  | 304161 | 5.16 ug/L | 103.22%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152 | 144866 | 5.38 ug/L | 107.62%   |

| Target Compounds      |       |    |        |           | Qvalue |
|-----------------------|-------|----|--------|-----------|--------|
| 9) Methylene chloride | 7.42  | 84 | 207678 | 6.42 ug/L | 99     |
| 28) Toluene           | 14.66 | 92 | 56756  | 0.78 ug/L | 91     |
| 48) 2-Chlorotoluene   | 19.73 | 91 | 72162  | 0.64 ug/L | 92     |

-----  
(#) = qualifier out of range (m) = manual integration

c8331.d VOA524.M Thu Jun 08 14:17:07 1995 VOA

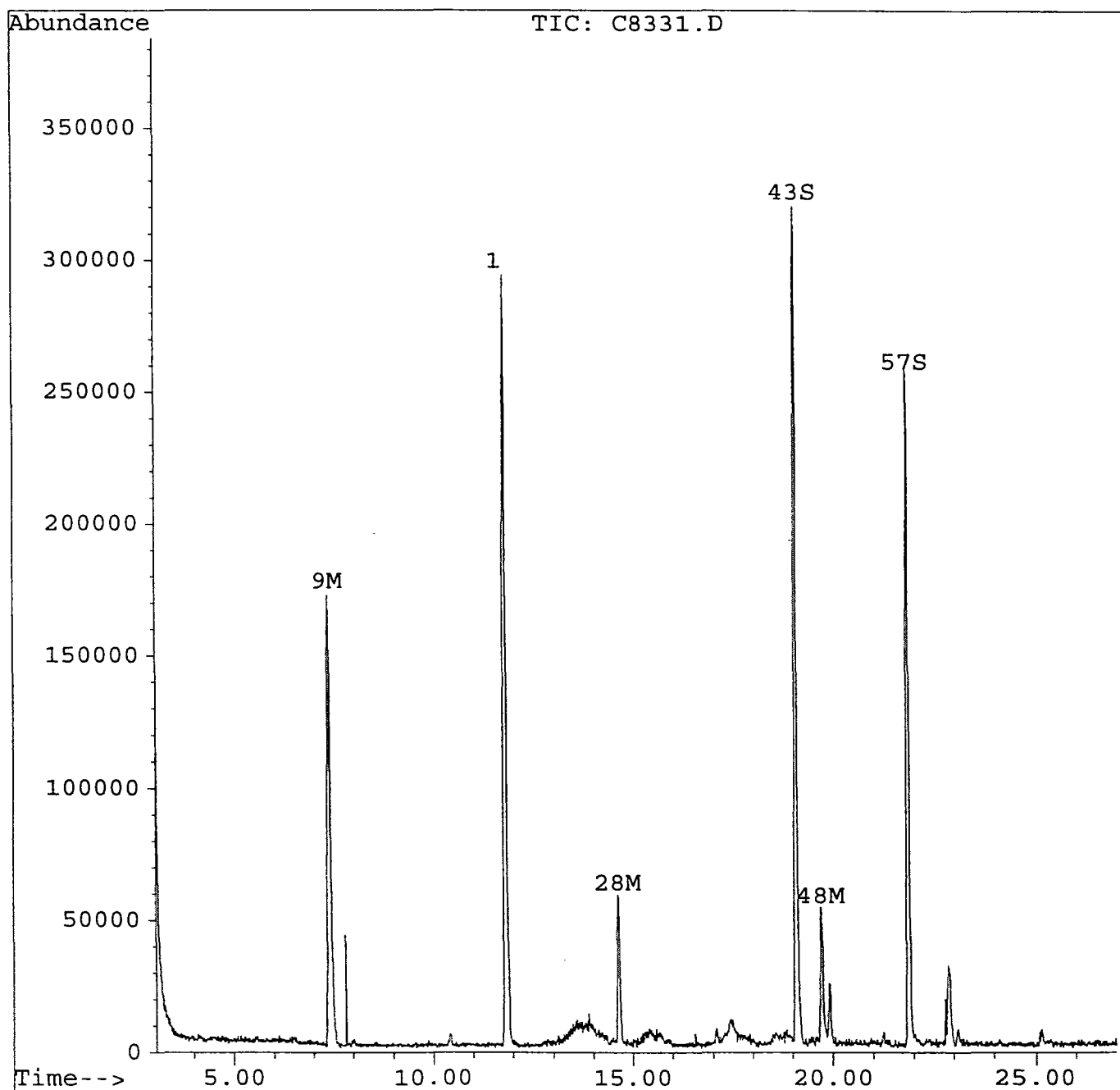
Page 1

# Quantitation Report

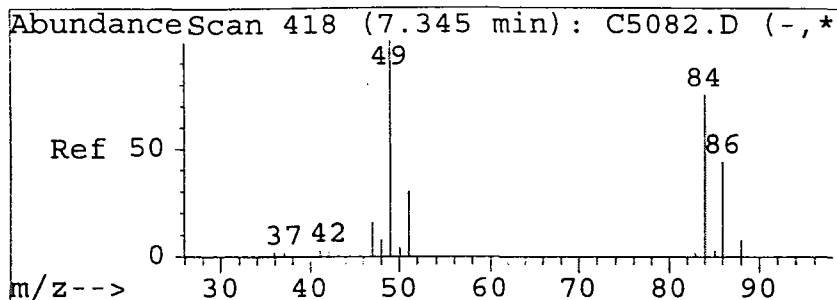
Data File : d:\hpchem\1\data\c8331.d  
 Acq On : 2 Jun 95 5:03 pm  
 Sample : 9523340  
 Misc : 25 ML  
 Quant Time: Jun 3 14:13 1995

Vial: 6 **098**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



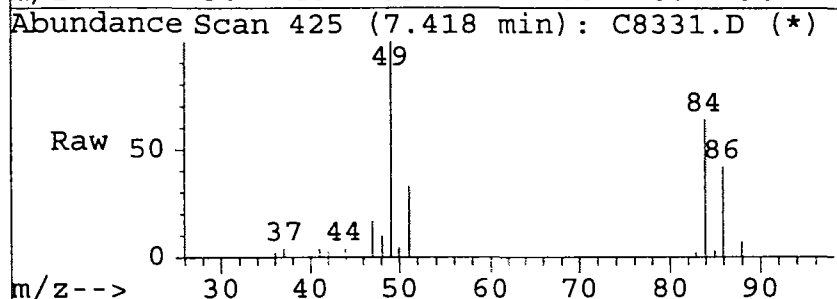




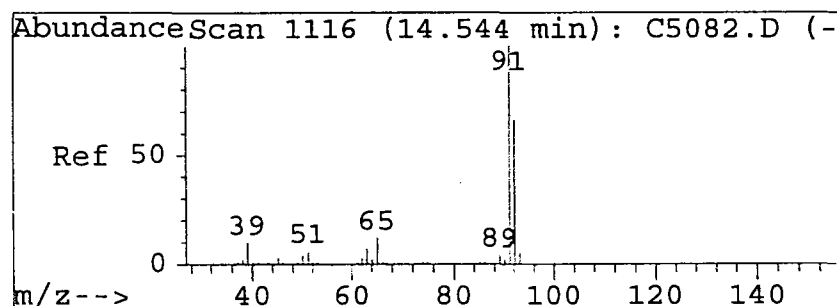
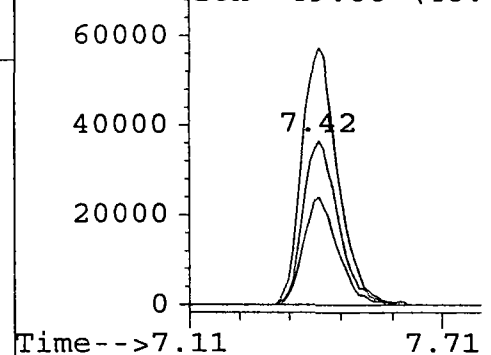
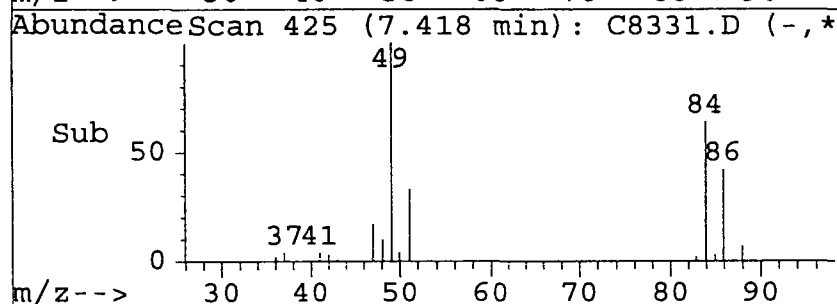
#9  
Methylene chloride  
Concen: 6.42 ug/L  
RT: 7.42 min Scan# 425  
Delta R.T. 0.01 min  
Lab File: c8331.d  
Acq: 2 Jun 95 5:03 pm

Tgt Ion:84 Resp: 207678  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 84  | 100   |       |       |
| 86  | 65.6  | 43.1  | 83.1  |
| 49  | 156.6 | 136.3 | 176.3 |
| 0   | 0.0   | 0.0   | 0.0   |



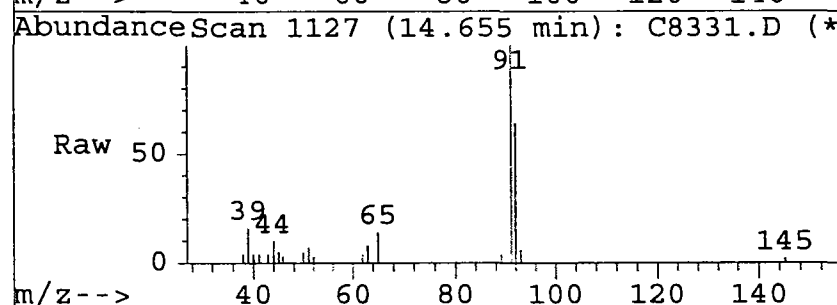
Abundance Ion 84.00 (83.  
 Ion 86.00 (85.  
 Ion 49.00 (48.



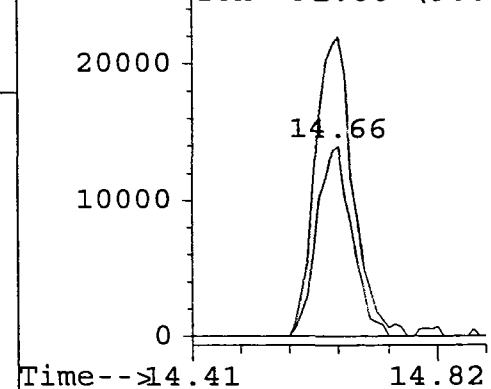
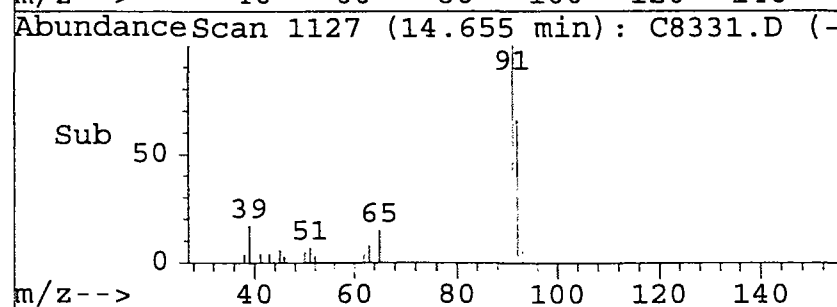
#28  
Toluene  
Concen: 0.78 ug/L  
RT: 14.66 min Scan# 1127  
Delta R.T. 0.01 min  
Lab File: c8331.d  
Acq: 2 Jun 95 5:03 pm

Tgt Ion:92 Resp: 56756  

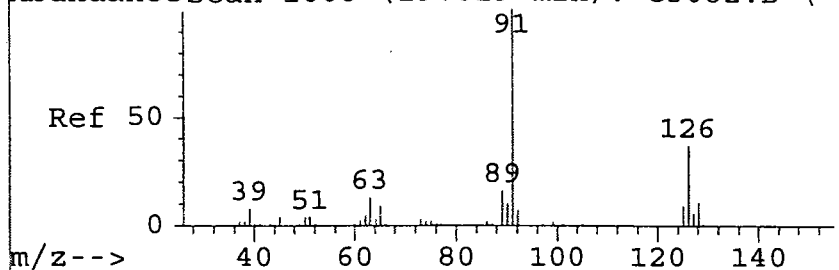
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 92  | 100   |       |       |
| 91  | 157.0 | 149.4 | 189.4 |
| 0   | 0.0   | 0.0   | 0.0   |
| 0   | 0.0   | 0.0   | 0.0   |



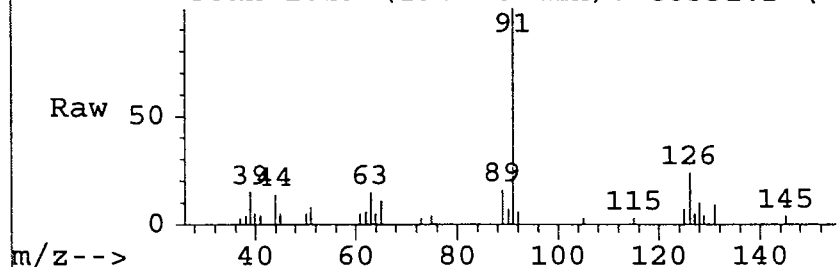
Abundance Ion 92.00 (91.  
 Ion 91.00 (90.



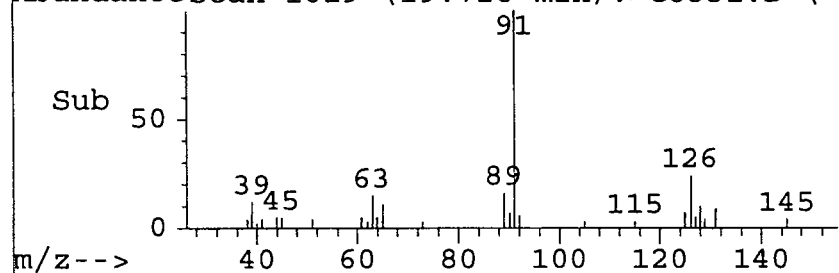
AbundanceScan 1608 (19.619 min): C5082.D (-



AbundanceScan 1619 (19.728 min): C8331.D (\*)



AbundanceScan 1619 (19.728 min): C8331.D (-



#48

2-Chlorotoluene

Concen: 0.64 ug/L

RT: 19.73 min Scan# 1619

Delta R.T. 0.00 min

Lab File: c8331.d

Acq: 2 Jun 95 5:03 pm

Tgt Ion:91 Resp: 72162

Ion Ratio Lower Upper

91 100

126 23.9 8.1 48.1

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.

20000 Ion 126.00 (125

19.73

15000

10000

5000

0

Time-->19.35 19.91

100

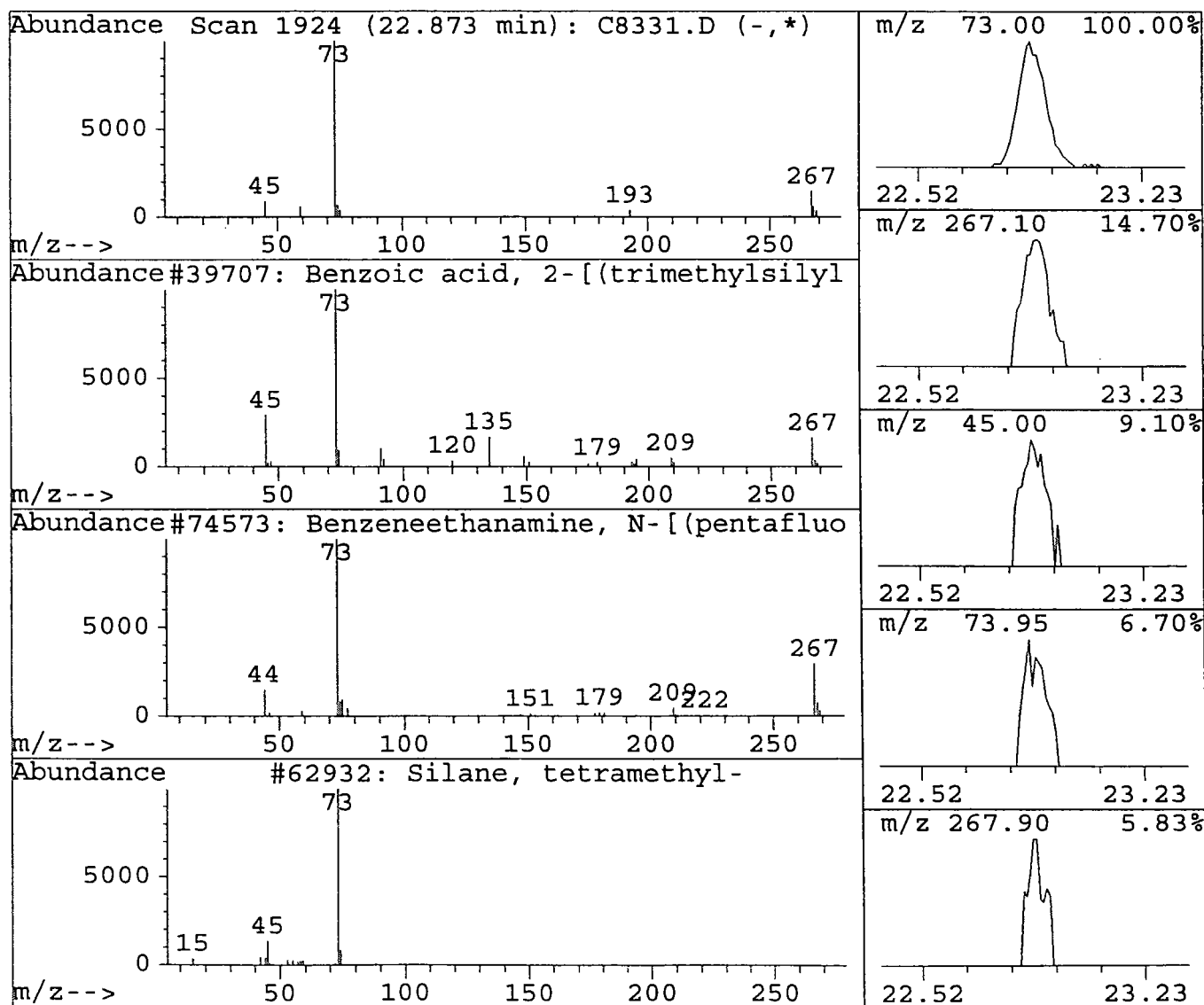
Data File : d:\hpcchem\1\data\c8331.d  
Acq On : 2 Jun 95 5:03 pm  
Sample : 9523340  
Misc : 25 ML

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.87 | 0.60 ug/L | 161877 | Fluorobenzene    | 11.84 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzoic acid, 2-[(trimethylsilyl)ox | 39707 | 003789-85-3 | 9    |
| 2          | Benzeneethanamine, N-[(pentafluorop | 74573 | 055429-85-1 | 4    |
| 3          | Silane, tetramethyl-                | 62932 | 000075-76-3 | 2    |
| 4          | N-Ethylformamide                    | 292   | 000627-45-2 | 4    |
| 5          | Silane, 9H-fluoren-9-yltrimethyl-   | 31629 | 007385-10-6 | 2    |



1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: 9523341 FB  
 Matrix (soil/water): WATER Lab File ID: C8332.D  
 Sample wt/vol: 25 mL Date Received: 05/22/95  
 Level (low/med): LOW Date Analyzed: 06/02/95  
 % Moisture: not dec.: NA Dilution Factor: 1  
 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA  
 Soil Extract Volume: NA

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 6.3 | B |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .50 | U |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
 Matrix (soil/water): WATER  
 Sample wt/vol: 25 mL  
 Level (low/med): LOW  
 % Moisture: not dec.: NA  
 GC Column: DB-624 x 75m ID: 0.53mm  
 Soil Extract Volume: NA

Lab Sample ID: 9523341 FB  
 Lab File ID: C8332.D  
 Date Received: 05/22/95  
 Date Analyzed: 06/02/95  
 Dilution Factor: 1  
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .50 | U |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8----- | sec-Butylbenzene            | .50 | U |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .50 | U |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .50 | U |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |

COMMENT

U= Not Detected

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9523341V

104

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 9523341V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8332.D

Level: (low/med) LOW

Date Received: 5/22/95

% Moisture: not dec. NA

Date Analyzed: 6/2/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT    | Est. Conc. | Q |
|------------|---------------|-------|------------|---|
| 1.         | Column Bleed  | 22.87 | 1          | J |
| 2.         |               |       |            |   |
| 3.         |               |       |            |   |
| 4.         |               |       |            |   |
| 5.         |               |       |            |   |
| 6.         |               |       |            |   |
| 7.         |               |       |            |   |
| 8.         |               |       |            |   |
| 9.         |               |       |            |   |
| 10.        |               |       |            |   |
| 11.        |               |       |            |   |
| 12.        |               |       |            |   |
| 13.        |               |       |            |   |
| 14.        |               |       |            |   |
| 15.        |               |       |            |   |
| 16.        |               |       |            |   |
| 17.        |               |       |            |   |
| 18.        |               |       |            |   |
| 19.        |               |       |            |   |
| 20.        |               |       |            |   |
| 21.        |               |       |            |   |
| 22.        |               |       |            |   |
| 23.        |               |       |            |   |
| 24.        |               |       |            |   |
| 25.        |               |       |            |   |
| 26.        |               |       |            |   |
| 27.        |               |       |            |   |
| 28.        |               |       |            |   |
| 29.        |               |       |            |   |
| 30.        |               |       |            |   |

## Quantitation Report

105

Data File : d:\hpchem\1\data\c8332.d  
Acq On : 2 Jun 95 5:39 pm  
Sample : 9523341  
Misc : 25 ML  
Quant Time: Jun 3 14:14 1995

Vial: 7  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene            | 11.84 | 96   | 685338   | 5.00 | ug/L  | 0.00      |
|                             |       |      |          |      |       | %Recovery |
| System Monitoring Compounds |       |      |          |      |       |           |
| 43) 4-Bromofluorobenzene    | 19.09 | 95   | 354996   | 5.19 | ug/L  | 103.85%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.87 | 152  | 175930   | 5.63 | ug/L  | 112.67%   |
|                             |       |      |          |      |       | Qvalue    |
| Target Compounds            |       |      |          |      |       |           |
| 9) Methylene chloride       | 7.41  | 84   | 236338   | 6.30 | ug/L  | 97        |

-----  
(#) = qualifier out of range (m) = manual integration

c8332.d VOA524.M

Thu Jun 08 14:19:34 1995

VOA

Page 1

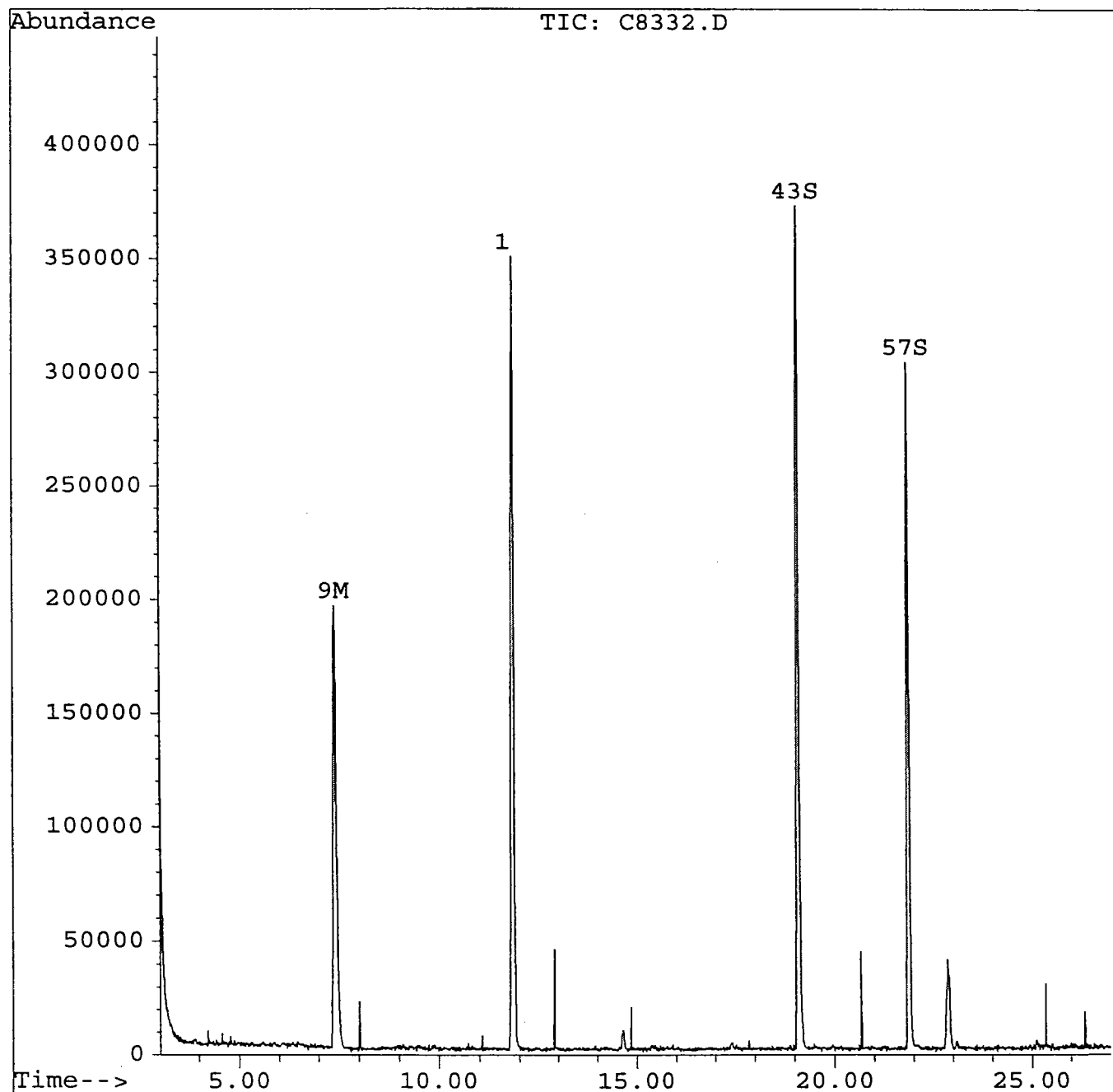
## Quantitation Report

106

Data File : d:\hpchem\1\data\c8332.d  
Acq On : 2 Jun 95 5:39 pm  
Sample : 9523341  
Misc : 25 ML  
Quant Time: Jun 3 14:14 1995

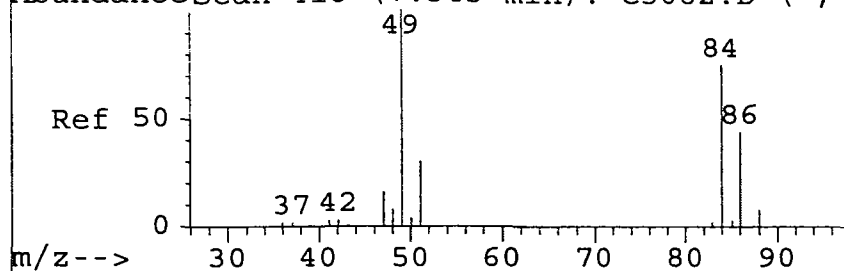
Vial: 7  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration





Abundance Scan 418 (7.345 min): C5082.D (-, \*



#9

Methylene chloride

Concen: 6.30 ug/L

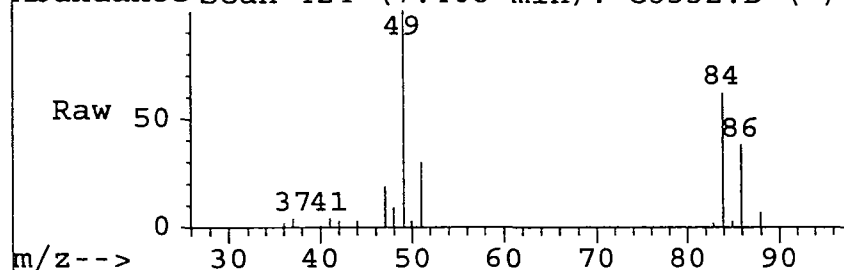
RT: 7.41 min Scan# 424

Delta R.T. 0.00 min

Lab File: c8332.d

Acq: 2 Jun 95 5:39 pm

Abundance Scan 424 (7.408 min): C8332.D (\*)



Tgt Ion:84 Resp: 236338

Ion Ratio Lower Upper

84 100

86 61.2 43.1 83.1

49 160.2 136.3 176.3

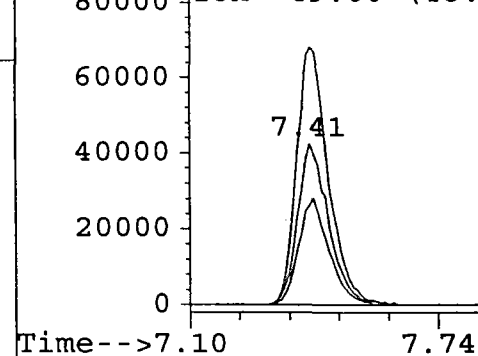
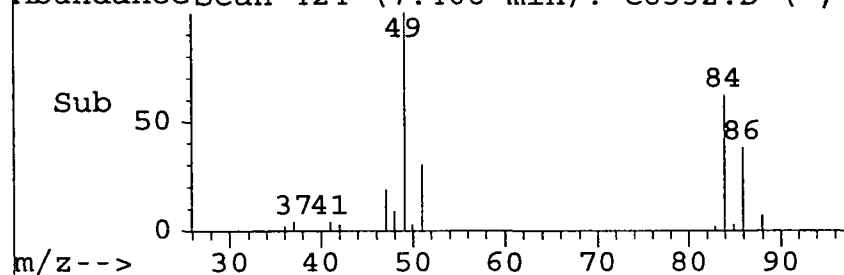
0 0.0 0.0 0.0

Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.

Abundance Scan 424 (7.408 min): C8332.D (-, \*



## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

108

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | SMC1<br>(BFB) # | SMC2<br>(DCB) # | # | OTHER<br># | TOT<br>OUT |
|----|------------|-----------------|-----------------|---|------------|------------|
| 01 | 1PPB STD   | 112             | 118             |   |            |            |
| 02 | VBLK01     | 106             | 112             |   |            |            |
| 03 | 9523339V   | 108             | 115             |   |            |            |
| 04 | 9523340V   | 103             | 108             |   |            |            |
| 05 | 9523341V   | 104             | 113             |   |            |            |
| 06 | 9523342V   | 104             | 109             |   |            |            |
| 07 | 9523343V   | 103             | 111             |   |            |            |
| 08 | 9523163V   | 104             | 112             |   |            |            |
| 09 | 9523167V   | 107             | 104             |   |            |            |
| 10 | 9523166V   | 105             | 113             |   |            |            |
| 11 | 9523343MS  | 105             | 109             |   |            |            |
| 12 | 9523343MSD | 108             | 114             |   |            |            |
| 13 | 10PPBQCS   | 102             | 104             |   |            |            |
| 14 |            |                 |                 |   |            |            |
| 15 |            |                 |                 |   |            |            |
| 16 |            |                 |                 |   |            |            |
| 17 |            |                 |                 |   |            |            |
| 18 |            |                 |                 |   |            |            |
| 19 |            |                 |                 |   |            |            |
| 20 |            |                 |                 |   |            |            |
| 21 |            |                 |                 |   |            |            |
| 22 |            |                 |                 |   |            |            |
| 23 |            |                 |                 |   |            |            |
| 24 |            |                 |                 |   |            |            |
| 25 |            |                 |                 |   |            |            |
| 26 |            |                 |                 |   |            |            |
| 27 |            |                 |                 |   |            |            |
| 28 |            |                 |                 |   |            |            |
| 29 |            |                 |                 |   |            |            |
| 30 |            |                 |                 |   |            |            |

SMC1 (BFB) = 4-Bromofluorobenzene  
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS  
 (80-120)  
 (80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 109

VBLK01

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C8329.D Lab Sample ID: M. BLANK

Date Analyzed: 6/2/95 Time Analyzed: 1550

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | TIME<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 1PPB STD   | 1PPB STD         | C8328.D        | 1514             |
| 02 | 9523339V   | 9523339V         | C8330.D        | 1626             |
| 03 | 9523340V   | 9523340V         | C8331.D        | 1703             |
| 04 | 9523341V   | 9523341V         | C8332.D        | 1739             |
| 05 | 9523342V   | 9523342V         | C8333.D        | 1817             |
| 06 | 9523343V   | 9523343V         | C8334.D        | 1853             |
| 07 | 9523163V   | 9523163V         | C8335.D        | 1929             |
| 08 | 9523167V   | 9523167V         | C8336.D        | 2004             |
| 09 | 9523166V   | 9523166V         | C8337.D        | 2040             |
| 10 | 9523343MS  | 23343MS          | C8338.D        | 2115             |
| 11 | 9523343MSD | 23343MSD         | C8339.D        | 2150             |
| 12 | 10PPBQCS   | 10PPBQCS         | C8340.D        | 2224             |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

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1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

|                                                  |                                    |
|--------------------------------------------------|------------------------------------|
| Lab Name: <u>EMSL ANALYTICAL</u>                 | Lab Sample ID: <u>METHOD BLANK</u> |
| Matrix (soil/water): <u>WATER</u>                | Lab File ID: <u>C8329.D</u>        |
| Sample wt/vol: <u>25 mL</u>                      | Date Received: <u>NA</u>           |
| Level (low/med): <u>LOW</u>                      | Date Analyzed: <u>06/02/95</u>     |
| % Moisture: not dec.: <u>NA</u>                  | Dilution Factor: <u>1</u>          |
| GC Column: <u>DB-624 x 75m</u> ID: <u>0.53mm</u> | Soil Aliquot Volume: <u>NA</u>     |
| Soil Extract Volume: <u>NA</u>                   |                                    |

## CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 4.7 |   |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .50 | U |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: METHOD BLANK  
 Matrix (soil/water): WATER Lab File ID: C8329.D  
 Sample wt/vol: 25 mL Date Received: NA  
 Level (low/med): LOW Date Analyzed: 06/02/95  
 % Moisture: not dec.: NA Dilution Factor: 1  
 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA  
 Soil Extract Volume: NA

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .50 | U |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8----- | sec-Butylbenzene            | .50 | U |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .50 | U |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .50 | U |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |

## COMMENT

U= Not Detected

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

112

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8329.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 6/2/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc. | Q |
|------------|---------------|----|------------|---|
| 1.         | NONE FOUND    |    |            |   |
| 2.         |               |    |            |   |
| 3.         |               |    |            |   |
| 4.         |               |    |            |   |
| 5.         |               |    |            |   |
| 6.         |               |    |            |   |
| 7.         |               |    |            |   |
| 8.         |               |    |            |   |
| 9.         |               |    |            |   |
| 10.        |               |    |            |   |
| 11.        |               |    |            |   |
| 12.        |               |    |            |   |
| 13.        |               |    |            |   |
| 14.        |               |    |            |   |
| 15.        |               |    |            |   |
| 16.        |               |    |            |   |
| 17.        |               |    |            |   |
| 18.        |               |    |            |   |
| 19.        |               |    |            |   |
| 20.        |               |    |            |   |
| 21.        |               |    |            |   |
| 22.        |               |    |            |   |
| 23.        |               |    |            |   |
| 24.        |               |    |            |   |
| 25.        |               |    |            |   |
| 26.        |               |    |            |   |
| 27.        |               |    |            |   |
| 28.        |               |    |            |   |
| 29.        |               |    |            |   |
| 30.        |               |    |            |   |

## Quantitation Report

113

Data File : d:\hpchem\1\data\c8329.d  
Acq-On : 2 Jun 95 3:50 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 3 14:08 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units     | Dev (Min) |
|-----------------------------|-------|------|----------|------|-----------|-----------|
| 1) Fluorobenzene            | 11.84 | 96   | 689722   | 5.00 | ug/L      | 0.00      |
| System Monitoring Compounds |       |      |          |      | %Recovery |           |
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 364668   | 5.30 | ug/L      | 106.00%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 176494   | 5.62 | ug/L      | 112.32%   |
| Target Compounds            |       |      |          |      | Qvalue    |           |
| 9) Methylene chloride       | 7.42  | 84   | 178459   | 4.73 | ug/L      | 96        |

(#) = qualifier out of range (m) = manual integration

c8329.d VOA524.M

Thu Jun 08 14:09:03 1995

VOA

Page 1

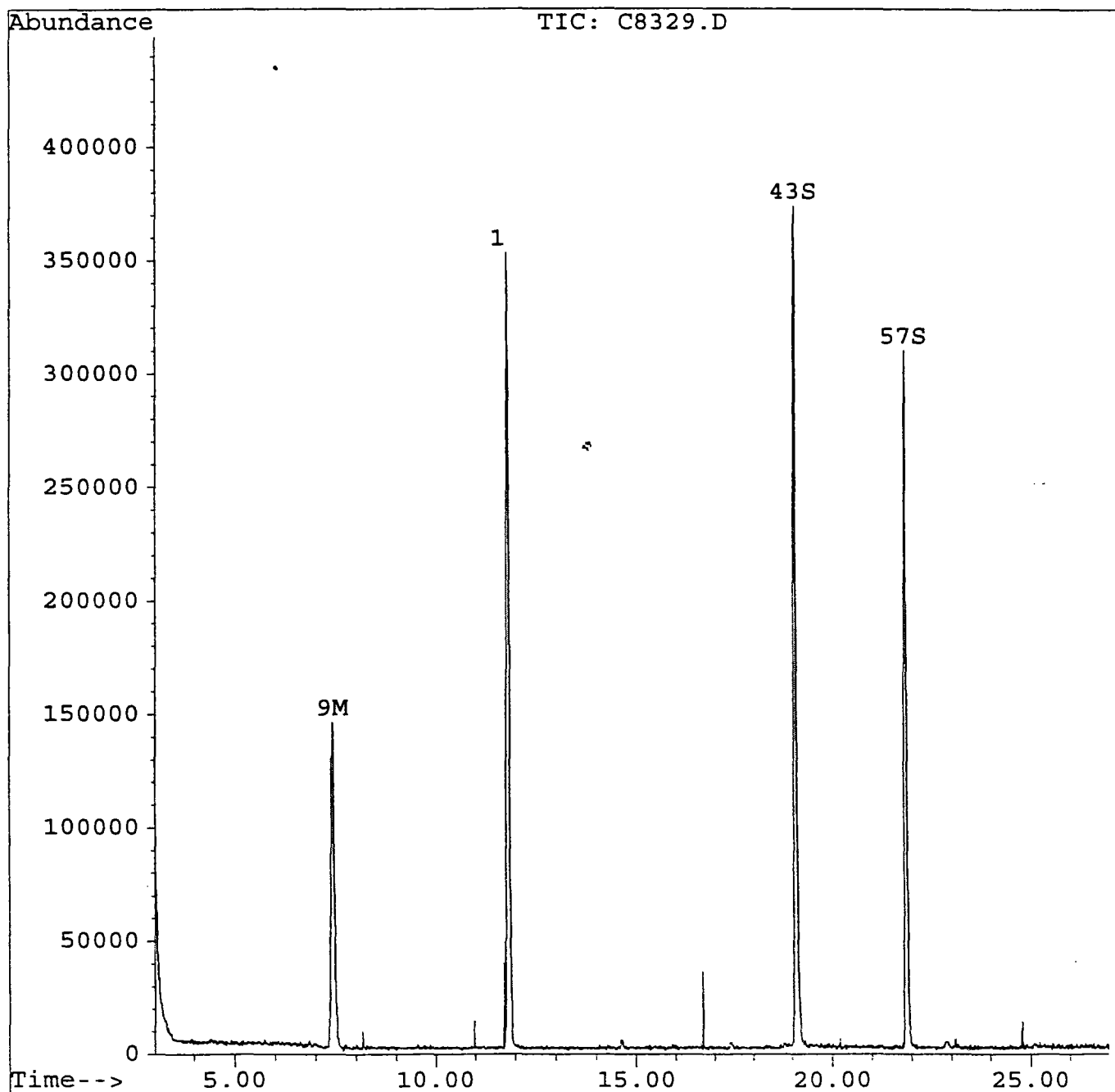
# Quantitation Report

114

Data File : d:\hpchem\1\data\c8329.d  
Acq On : 2 Jun 95 3:50 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 3 14:08 1995

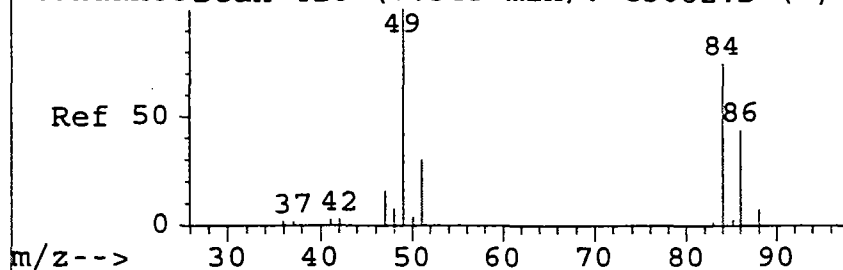
Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration





Abundance Scan 418 (7.345 min): C5082.D (-, \*



#9

Methylene chloride

Concen: 4.73 ug/L

RT: 7.42 min Scan# 425

Delta R.T. - 0.01 min

Lab File: c8329.d

Acq: 2 Jun 95 3:50 pm

Tgt Ion: 84 Resp: 178459

Ion Ratio Lower Upper

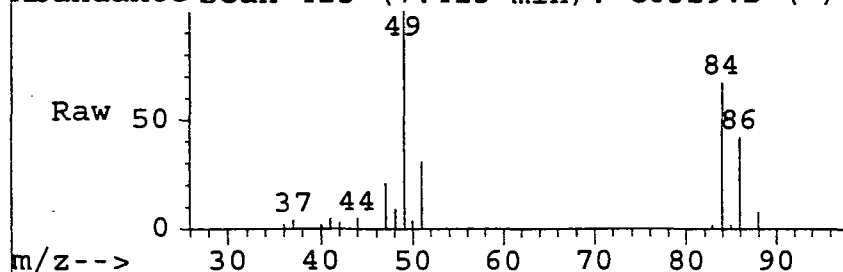
84 100

86 63.3 43.1 83.1

49 149.6 136.3 176.3

0 0.0 0.0 0.0

Abundance Scan 425 (7.415 min): C8329.D (\*)



Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.

60000

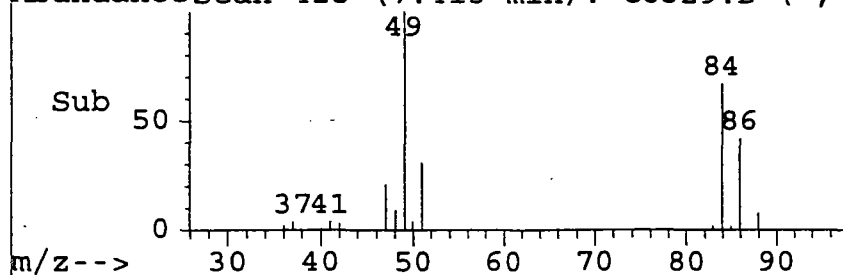
40000

20000

7.42

0

Abundance Scan 425 (7.415 min): C8329.D (-, \*



Time--&gt;7.12

7.71

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Initial Calibration

Non-Spiked Sample: C8334.D

Spike  
Sample

Spike  
Duplicate Sample

|                            |                  |
|----------------------------|------------------|
| File ID : C8338.D          | C8339.D          |
| Sample : 9523343 MS        | 9523343 MSD      |
| Acq Time: 2 Jun 95 9:15 pm | 2 Jun 95 9:50 pm |

| Compound             | Sample<br>Conc | Spike<br>Added | Spike<br>Res | Dup<br>Res | Spike<br>%Rec | Dup<br>%Rec | RPD | QC<br>RPD | Limits<br>% Rec |
|----------------------|----------------|----------------|--------------|------------|---------------|-------------|-----|-----------|-----------------|
| Dichlorodifluorometh | 0.0            | 10             | 10           | 10         | 96            | 97          | 1   | 25        | 80-120          |
| Chloromethane        | 0.0            | 10             | 10           | 10         | 101           | 98          | 3   | 25        | 80-120          |
| Vinyl chloride       | 0.0            | 10             | 9            | 10         | 93            | 98          | 6   | 25        | 80-120          |
| Bromomethane         | 0.0            | 10             | 10           | 10         | 101           | 103         | 2   | 25        | 80-120          |
| Chloroethane         | 0.0            | 10             | 11           | 11         | 107           | 105         | 2   | 25        | 80-120          |
| Trichlorofluorometha | 0.0            | 10             | 10           | 10         | 98            | 101         | 2   | 25        | 80-120          |
| 1,1-Dichloroethene   | 0.0            | 10             | 9            | 9          | 87            | 94          | 8   | 25        | 80-120          |
| Methylene chloride   | 1.4            | 10             | 8            | 8          | 69#           | 70#         | 1   | 25        | 80-120          |
| trans-1,2-Dichloroet | 0.0            | 10             | 10           | 10         | 95            | 99          | 4   | 25        | 80-120          |
| 1,1-Dichloroethane   | 0.0            | 10             | 10           | 10         | 102           | 103         | 1   | 25        | 80-120          |
| 2,2-Dichloropropane  | 0.0            | 10             | 8            | 8          | 81            | 82          | 2   | 25        | 80-120          |
| cis-1,2-Dichloroethe | 0.0            | 10             | 10           | 10         | 100           | 102         | 3   | 25        | 80-120          |
| Bromochloromethane   | 0.0            | 10             | 10           | 11         | 101           | 107         | 5   | 25        | 80-120          |
| Chloroform           | 0.0            | 10             | 10           | 10         | 101           | 103         | 2   | 25        | 80-120          |
| 1,1,1-Trichloroethan | 0.0            | 10             | 10           | 10         | 102           | 101         | 1   | 25        | 80-120          |
| Carbon tetrachloride | 0.0            | 10             | 10           | 10         | 97            | 101         | 4   | 25        | 80-120          |
| 1,1-Dichloropropene  | 0.0            | 10             | 9            | 10         | 86            | 97          | 12  | 25        | 80-120          |
| Benzene              | 0.0            | 10             | 10           | 10         | 99            | 101         | 2   | 25        | 80-120          |
| 1,2-Dichloroethane   | 0.0            | 10             | 10           | 11         | 104           | 107         | 2   | 25        | 80-120          |
| Trichloroethene      | 0.0            | 10             | 10           | 10         | 98            | 99          | 1   | 25        | 80-120          |
| 1,2-Dichloropropane  | 0.0            | 10             | 10           | 10         | 105           | 105         | 0   | 25        | 80-120          |
| Dibromomethane       | 0.0            | 10             | 10           | 11         | 102           | 108         | 5   | 25        | 80-120          |
| Bromodichloromethane | 0.0            | 10             | 10           | 11         | 99            | 105         | 6   | 25        | 80-120          |
| cis-1,3-Dichloroprop | 0.0            | 10             | 10           | 10         | 97            | 102         | 5   | 25        | 80-120          |
| Toluene              | 0.0            | 10             | 10           | 10         | 95            | 99          | 4   | 25        | 80-120          |
| trans-1,3-Dichloropr | 0.0            | 10             | 10           | 10         | 96            | 104         | 8   | 25        | 80-120          |
| 1,1,2-Trichloroethan | 0.0            | 10             | 11           | 11         | 106           | 108         | 3   | 25        | 80-120          |
| Tetrachloroethene    | 0.0            | 10             | 10           | 10         | 98            | 100         | 2   | 25        | 80-120          |
| 1,3-Dichloropropane  | 0.0            | 10             | 11           | 11         | 105           | 108         | 3   | 25        | 80-120          |
| Dibromochloromethane | 0.0            | 10             | 10           | 11         | 104           | 105         | 2   | 25        | 80-120          |
| 1,2-Dibromomethane   | 0.0            | 10             | 10           | 11         | 105           | 109         | 4   | 25        | 80-120          |
| Chlorobenzene        | 0.0            | 10             | 10           | 10         | 102           | 104         | 2   | 25        | 80-120          |
| 1,1,1,2-Tetrachloroe | 0.0            | 10             | 11           | 11         | 113           | 105         | 7   | 25        | 80-120          |
| Ethylbenzene         | 0.0            | 10             | 9            | 10         | 87            | 98          | 12  | 25        | 80-120          |
| Xylene (para & meta) | 0.0            | 20             | 13           | 18         | 65#           | 90          | 32# | 25        | 80-120          |
| Xylene (Ortho)       | 0.0            | 10             | 7            | 9          | 70#           | 94          | 30# | 25        | 80-120          |
| Styrene              | 0.0            | 10             | 2            | 4          | 21#           | 39#         | 62# | 25        | 80-120          |
| Bromoform            | 0.0            | 10             | 10           | 11         | 99            | 105         | 6   | 25        | 80-120          |
| Isopropylbenzene     | 0.0            | 10             | 9            | 10         | 93            | 98          | 6   | 25        | 80-120          |
| Bromobenzene         | 0.0            | 10             | 10           | 11         | 103           | 107         | 3   | 25        | 80-120          |
| 1,1,2,2-Tetrachloroe | 0.0            | 10             | 12           | 12         | 122#          | 124#        | 1   | 25        | 80-120          |
| 1,2,3-Trichloropropa | 0.0            | 10             | 11           | 12         | 107           | 118         | 10  | 25        | 80-120          |
| n-Propylbenzene      | 0.0            | 10             | 9            | 10         | 90            | 99          | 10  | 25        | 80-120          |

## Quantitation Report

Data File : d:\hpchem\1\data\c8338.d  
 Acq On : 2 Jun 95 9:15 pm  
 Sample : 9523343 MS  
 Misc : 25 ML  
 Quant Time: Jun 18 11:08 1995

Vial: 13  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.85 | 96   | 668860   | 5.00 | ug/L  | 0.01     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.11 | 95   | 350931   | 5.26 | ug/L  | 105.19%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.89 | 152  | 166698   | 5.47 | ug/L  | 109.39%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.30  | 85   | 506687   | 9.56  | ug/L  | 99     |
| 3) Chloromethane              | 3.67  | 50   | 315932   | 10.12 | ug/L  | 93     |
| 4) Vinyl chloride             | 3.89  | 62   | 326875   | 9.29  | ug/L  | 96     |
| 5) Bromomethane               | 4.55  | 94   | 240023   | 10.09 | ug/L  | 99     |
| 6) Chloroethane               | 4.79  | 64   | 221059   | 10.72 | ug/L  | 90     |
| 7) Trichlorofluoromethane     | 5.36  | 101  | 772924   | 9.83  | ug/L  | 99     |
| 8) 1,1-Dichloroethene         | 6.45  | 96   | 301226   | 8.73  | ug/L  | # 85   |
| 9) Methylene chloride         | 7.43  | 84   | 303995   | 8.30  | ug/L  | 99     |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96   | 346768   | 9.51  | ug/L  | 96     |
| 12) 1,1-Dichloroethane        | 8.78  | 63   | 742577   | 10.18 | ug/L  | 95     |
| 13) 2,2-Dichloropropane       | 9.84  | 77   | 577515   | 8.08  | ug/L  | 99     |
| 14) cis-1,2-Dichloroethene    | 9.84  | 96   | 342923   | 9.98  | ug/L  | 95     |
| 16) Bromochloromethane        | 10.26 | 128  | 121916   | 10.12 | ug/L  | 95     |
| 17) Chloroform                | 10.41 | 83   | 695548   | 10.16 | ug/L  | 99     |
| 18) 1,1,1-Trichloroethane     | 10.74 | 97   | 773283   | 10.21 | ug/L  | 99     |
| 19) Carbon tetrachloride      | 11.05 | 117  | 680258   | 9.67  | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.02 | 75   | 569965   | 8.61  | ug/L  | 95     |
| 21) Benzene                   | 11.37 | 78   | 1151235  | 9.88  | ug/L  | 95     |
| 22) 1,2-Dichloroethane        | 11.37 | 62   | 300143   | 10.50 | ug/L  | 96     |
| 23) Trichloroethene           | 12.49 | 95   | 504205   | 9.76  | ug/L  | 99     |
| 24) 1,2-Dichloropropane       | 12.84 | 63   | 399285   | 10.47 | ug/L  | 100    |
| 25) Dibromomethane            | 13.05 | 93   | 158049   | 10.23 | ug/L  | 98     |
| 26) Bromodichloromethane      | 13.32 | 83   | 526552   | 9.94  | ug/L  | 99     |
| 27) cis-1,3-Dichloropropene   | 14.08 | 75   | 441899   | 9.65  | ug/L  | 97     |
| 28) Toluene                   | 14.65 | 92   | 793802   | 9.59  | ug/L  | 97     |
| 29) trans-1,3-Dichloropropene | 15.00 | 75   | 304361   | 9.63  | ug/L  | 94     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 156077   | 10.57 | ug/L  | 96     |
| 31) Tetrachloroethene         | 15.62 | 166  | 509635   | 9.83  | ug/L  | 98     |
| 32) 1,3-Dichloropropane       | 15.60 | 76   | 308567   | 10.54 | ug/L  | 98     |
| 33) Dibromochloromethane      | 16.00 | 129  | 298279   | 10.38 | ug/L  | 99     |
| 34) 1,2-Dibromomethane        | 16.20 | 107  | 213188   | 10.46 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.08 | 112  | 879010   | 10.20 | ug/L  | 97     |
| 36) 1,1,1,2-Tetrachloroethane | 17.21 | 131  | 387142   | 11.31 | ug/L  | 96     |
| 37) Ethylbenzene              | 17.27 | 91   | 1525869  | 8.76  | ug/L  | 95     |
| 38) Xylene (para & meta)      | 17.48 | 106  | 809779   | 12.95 | ug/L  | 95     |
| 39) Xylene (Ortho)            | 18.18 | 106  | 384862   | 6.95  | ug/L  | 95     |
| 40) Styrene                   | 18.19 | 104  | 177099   | 2.07  | ug/L  | # 67   |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

118

Data File : d:\hpchem\1\data\c8338.d  
Acq On : 2 Jun 95 9:15 pm  
Sample : 9523343 MS  
Misc : 25 ML  
Quant Time: Jun 18 11:08 1995

Vial: 13  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 140076   | 9.93  | ug/L   | 88     |
| 42) Isopropylbenzene           | 18.84 | 105  | 1649700  | 9.27  | ug/L m | 45     |
| 44) Bromobenzene               | 19.38 | 156  | 331886   | 10.35 | ug/L # | 91     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.33 | 83   | 193031   | 12.24 | ug/L   | 96     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 204110   | 10.66 | ug/L # | 53     |
| 47) n-Propylbenzene            | 19.58 | 91   | 2079546  | 8.98  | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.74 | 91   | 1387983  | 10.80 | ug/L   | 100    |
| 49) 4-Chlorotoluene            | 19.92 | 91   | 1404670  | 9.21  | ug/L   | 85     |
| 50) 1,3,5-Trimethylbenzene     | 19.90 | 105  | 573100   | 3.89  | ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.49 | 119  | 1507256  | 9.86  | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.57 | 105  | 534017   | 3.96  | ug/L   | 98     |
| 53) sec-Butylbenzene           | 20.89 | 105  | 2145893  | 9.48  | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.09 | 146  | 690338   | 10.55 | ug/L   | 100    |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 1220351  | 7.22  | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 685885   | 10.57 | ug/L   | 92     |
| 58) 1,2-Dichlorobenzene        | 21.92 | 146  | 524499   | 10.76 | ug/L   | 98     |
| 59) n-Butylbenzene             | 21.90 | 91   | 1648408  | 9.09  | ug/L   | 100    |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 41948    | 10.47 | ug/L   | 90     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 395288   | 11.03 | ug/L   | 96     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 446035   | 10.32 | ug/L   | 97     |
| 63) Naphthalene                | 25.35 | 128  | 359109   | 11.58 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.82 | 180  | 284412   | 11.38 | ug/L   | 95     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 398581   | 10.20 | ug/L   | 93     |
| 66) tert-Butyl Alcohol         | 7.76  | 59   | 12669    | 21.16 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

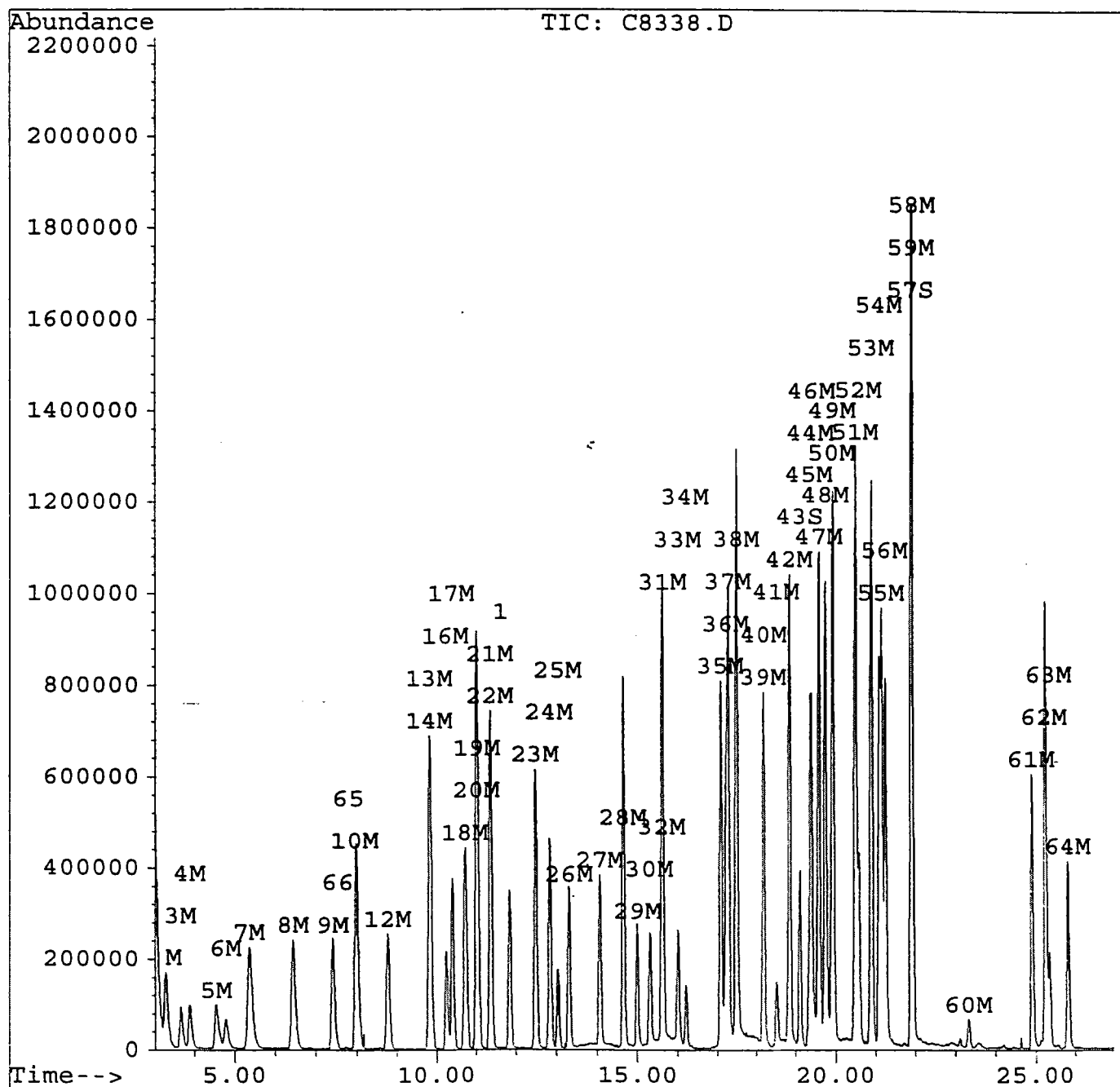
## Quantitation Report

Data File : d:\hpchem\1\data\c8338.d  
Acq On : 2 Jun 95 9:15 pm  
Sample : 9523343 MS  
Misc : 25 ML  
Quant Time: Jun 18 11:08 1995

Vial: 13  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

119

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



Data File : d:\hpchem\1\data\c8339.d  
 Acq On : 2 Jun 95 9:50 pm  
 Sample : 9523343 MSD  
 Misc : 25 ML  
 Quant Time: Jun 2 22:17 1995

Vial: 14  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.85 | 96   | 671183   | 5.00 | ug/L  | 0.01      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 363013   | 5.42 | ug/L  | 108.44%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.89 | 152  | 174022   | 5.69 | ug/L  | 113.80%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.30  | 85   | 514610   | 9.67  | ug/L  | 95     |
| 3) Chloromethane              | 3.68  | 50   | 307626   | 9.82  | ug/L  | 98     |
| 4) Vinyl chloride             | 3.90  | 62   | 347134   | 9.84  | ug/L  | 98     |
| 5) Bromomethane               | 4.55  | 94   | 244863   | 10.26 | ug/L  | 98     |
| 6) Chloroethane               | 4.78  | 64   | 217226   | 10.50 | ug/L  | 99     |
| 7) Trichlorofluoromethane     | 5.37  | 101  | 794300   | 10.07 | ug/L  | 100    |
| 8) 1,1-Dichloroethene         | 6.45  | 96   | 326026   | 9.41  | ug/L  | 93     |
| 9) Methylene chloride         | 7.42  | 84   | 307771   | 8.37  | ug/L  | 96     |
| 10) trans-1,2-Dichloroethene  | 8.00  | 96   | 363849   | 9.94  | ug/L  | 96     |
| 12) 1,1-Dichloroethane        | 8.77  | 63   | 753547   | 10.29 | ug/L  | 95     |
| 13) 2,2-Dichloropropane       | 9.84  | 77   | 591780   | 8.25  | ug/L  | 95     |
| 14) cis-1,2-Dichloroethene    | 9.85  | 96   | 353277   | 10.24 | ug/L  | 100    |
| 16) Bromochloromethane        | 10.26 | 128  | 128809   | 10.66 | ug/L  | # 86   |
| 17) Chloroform                | 10.42 | 83   | 709486   | 10.33 | ug/L  | 98     |
| 18) 1,1,1-Trichloroethane     | 10.74 | 97   | 767323   | 10.09 | ug/L  | 98     |
| 19) Carbon tetrachloride      | 11.05 | 117  | 712622   | 10.10 | ug/L  | 97     |
| 20) 1,1-Dichloropropene       | 11.03 | 75   | 645965   | 9.73  | ug/L  | 98     |
| 21) Benzene                   | 11.38 | 78   | 1177103  | 10.07 | ug/L  | 98     |
| 22) 1,2-Dichloroethane        | 11.38 | 62   | 308090   | 10.74 | ug/L  | 94     |
| 23) Trichloroethene           | 12.49 | 95   | 512750   | 9.90  | ug/L  | 98     |
| 24) 1,2-Dichloropropane       | 12.85 | 63   | 401590   | 10.50 | ug/L  | 99     |
| 25) Dibromomethane            | 13.05 | 93   | 166737   | 10.76 | ug/L  | 97     |
| 26) Bromodichloromethane      | 13.32 | 83   | 559898   | 10.53 | ug/L  | 97     |
| 27) cis-1,3-Dichloropropene   | 14.07 | 75   | 468363   | 10.20 | ug/L  | 100    |
| 28) Toluene                   | 14.66 | 92   | 826190   | 9.95  | ug/L  | 96     |
| 29) trans-1,3-Dichloropropene | 15.00 | 75   | 329303   | 10.38 | ug/L  | 98     |
| 30) 1,1,2-Trichloroethane     | 15.32 | 83   | 160754   | 10.85 | ug/L  | 94     |
| 31) Tetrachloroethene         | 15.63 | 166  | 521708   | 10.03 | ug/L  | 99     |
| 32) 1,3-Dichloropropane       | 15.60 | 76   | 317842   | 10.82 | ug/L  | 98     |
| 33) Dibromochloromethane      | 16.01 | 129  | 303964   | 10.54 | ug/L  | 99     |
| 34) 1,2-Dibromomethane        | 16.20 | 107  | 222064   | 10.86 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.08 | 112  | 898884   | 10.39 | ug/L  | 99     |
| 36) 1,1,1,2-Tetrachloroethane | 17.22 | 131  | 361598   | 10.53 | ug/L  | 98     |
| 37) Ethylbenzene              | 17.27 | 91   | 1723486  | 9.86  | ug/L  | 99     |
| 38) Xylene (para & meta)      | 17.48 | 106  | 1124706  | 17.92 | ug/L  | 90     |
| 39) Xylene (Ortho)            | 18.18 | 106  | 524326   | 9.44  | ug/L  | 96     |
| 40) Styrene                   | 18.20 | 104  | 338953   | 3.94  | ug/L  | 98     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8339.d  
Acq On : 2 Jun 95 9:50 pm  
Sample : 9523343 MSD  
Misc : 25 ML  
Quant Time: Jun 2 22:17 1995

Vial: 14 **121**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.52 | 173  | 148876   | 10.52 | ug/L   | 90     |
| 42) Isopropylbenzene           | 18.84 | 105  | 1755979  | 9.83  | ug/L   | 90     |
| 44) Bromobenzene               | 19.38 | 156  | 343805   | 10.68 | ug/L # | 89     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.34 | 83   | 195543   | 12.36 | ug/L   | 98     |
| 46) 1,2,3-Trichloropropane     | 19.41 | 75   | 226162   | 11.77 | ug/L   | 90     |
| 47) n-Propylbenzene            | 19.57 | 91   | 2297109  | 9.89  | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.74 | 91   | 1404422  | 10.89 | ug/L   | 100    |
| 49) 4-Chlorotoluene            | 19.92 | 91   | 1519434  | 9.93  | ug/L   | 83     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 1127211  | 7.62  | ug/L   | 97     |
| 51) tert-Butylbenzene          | 20.49 | 119  | 1533078  | 10.00 | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.57 | 105  | 874755   | 6.46  | ug/L   | 98     |
| 53) sec-Butylbenzene           | 20.89 | 105  | 2237152  | 9.84  | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.09 | 146  | 692686   | 10.55 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 1588304  | 9.36  | ug/L   | 100    |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 693155   | 10.64 | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.92 | 146  | 536739   | 10.97 | ug/L   | 98     |
| 59) n-Butylbenzene             | 21.90 | 91   | 1829900  | 10.06 | ug/L   | 98     |
| 60) 1,2-Dibromo-3-chloropropan | 23.33 | 75   | 44811    | 11.15 | ug/L   | 87     |
| 61) 1,2,4-Trichlorobenzene     | 24.90 | 180  | 403043   | 11.20 | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.24 | 225  | 430915   | 9.93  | ug/L   | 98     |
| 63) Naphthalene                | 25.35 | 128  | 369223   | 11.86 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.82 | 180  | 297987   | 11.88 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.02  | 73   | 424237   | 10.82 | ug/L   | 97     |
| 66) tert-Butyl Alcohol         | 7.72  | 59   | 12194    | 20.29 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

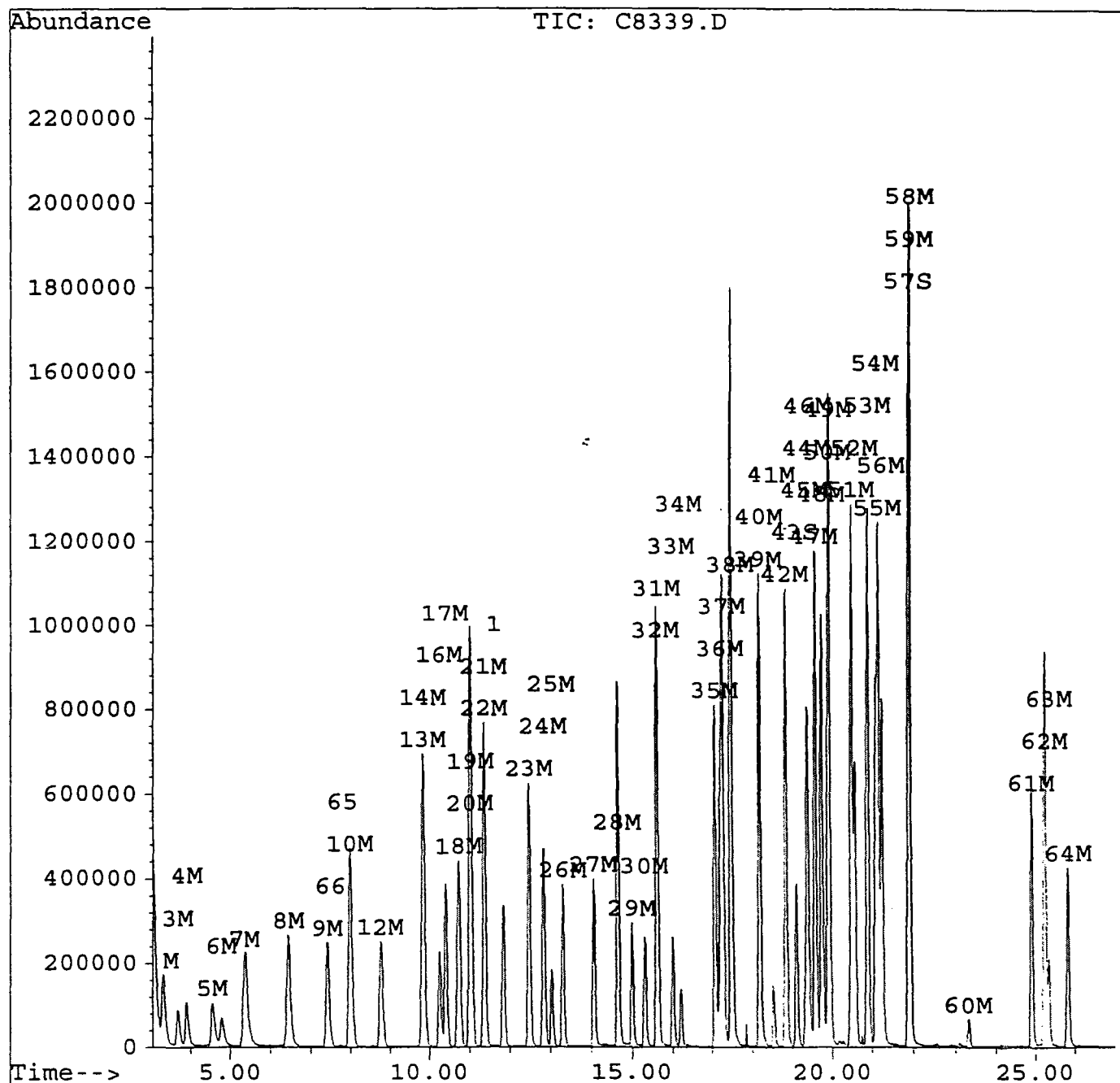
## Quantitation Report

122

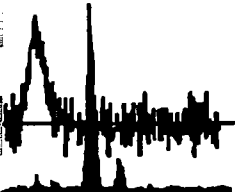
Data File : d:\hpchem\1\data\c8339.d  
Acq On : 2 Jun 95 9:50 pm  
Sample : 9523343 MSD  
Misc : 25 ML  
Quant Time: Jun 2 22:17 1995

Vial: 14  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration





GC/MS SEMIVOLATILE DATA PACKAGE

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract:

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Lab File ID: B7750.D DFTPP Injection Date: 05/30/95

Instrument ID: ABNA DFTPP Injection Time: 0914

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |      |    |
|-----|------------------------------------|----------------------|------|----|
| 51  | 30.0 - 80.0% of mass 198           | 51.3                 |      |    |
| 68  | Less than 2.0% of mass 69          | 0.0                  | 0.0  | )1 |
| 69  | Mass 69 relative abundance         | 61.1                 |      |    |
| 70  | Less than 2.0% of mass 69          | 0.3                  | 0.6  | )1 |
| 127 | 25.0 - 75.0% of mass 198           | 44.4                 |      |    |
| 197 | Less than 1.0% of mass 198         | 0.0                  |      |    |
| 198 | Base Peak, 100% relative abundance | 100.0                |      |    |
| 199 | 5.0 to 9.0% of mass 198            | 7.5                  |      |    |
| 275 | 10.0 - 30.0% of mass 198           | 23.1                 |      |    |
| 365 | Greater than 0.75% of mass 198     | 2.8                  |      |    |
| 441 | Present, but less than mass 443    | 9.3                  |      |    |
| 442 | 40.0 - 110.0% of mass 198          | 64.3                 |      |    |
| 443 | 15.0 - 24.0% of mass 442           | 13.1                 | 20.3 | )2 |

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDAR

[illegible]

Data File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

Acq On : 30 May 95 9:14 am

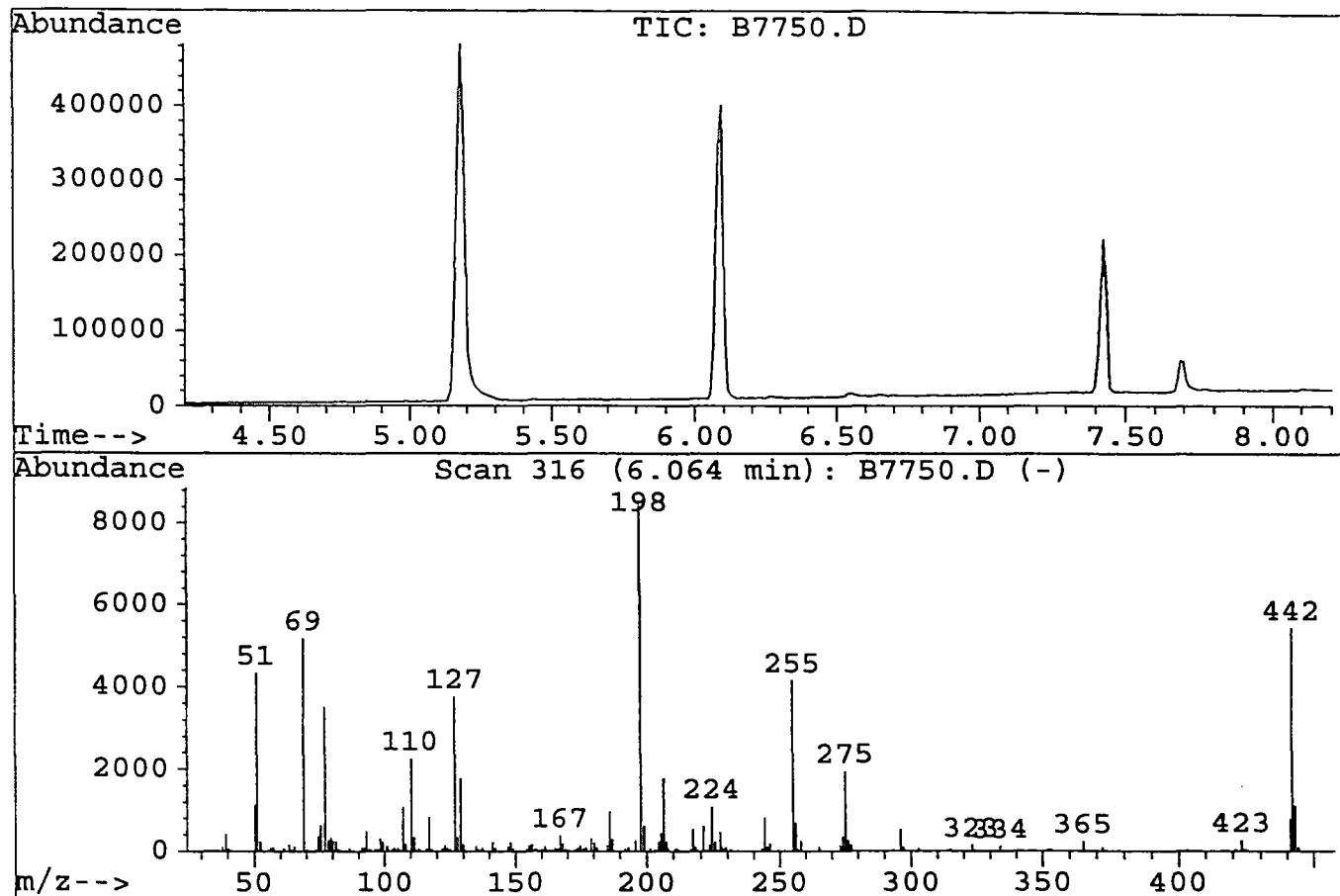
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 330

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 51.3      | 4339    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 61.1      | 5169    | PASS             |
| 70          | 69           | 0            | 2            | 0.6       | 29      | PASS             |
| 127         | 198          | 40           | 60           | 44.4      | 3758    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 8456    | PASS             |
| 199         | 198          | 5            | 9            | 7.5       | 631     | PASS             |
| 275         | 198          | 10           | 30           | 23.1      | 1951    | PASS             |
| 365         | 198          | 1            | 100          | 2.8       | 238     | PASS             |
| 441         | 443          | 0            | 100          | 71.3      | 788     | PASS             |
| 442         | 198          | 40           | 100          | 64.3      | 5436    | PASS             |
| 443         | 442          | 17           | 23           | 20.3      | 1105    | PASS             |

Scan 316 (6.064 min): B7750.D

126

Modified:subtracted

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 38.00 | 111    | 58.05 | 13     | 78.05 | 284    | 96.05  | 58     |
| 39.05 | 417    | 61.15 | 74     | 79.05 | 332    | 97.05  | 35     |
| 40.10 | 59     | 63.05 | 154    | 79.95 | 245    | 98.05  | 313    |
| 50.05 | 1128   | 64.05 | 37     | 81.05 | 252    | 99.05  | 224    |
| 51.00 | 4339   | 65.05 | 105    | 82.05 | 44     | 100.95 | 120    |
| 52.05 | 241    | 68.95 | 5169   | 83.10 | 16     | 103.15 | 68     |
| 53.00 | 10     | 70.05 | 29     | 86.15 | 75     | 103.95 | 87     |
| 54.05 | 4      | 73.05 | 43     | 91.05 | 88     | 105.05 | 85     |
| 55.05 | 32     | 74.05 | 376    | 91.95 | 98     | 107.05 | 1091   |
| 56.05 | 93     | 75.05 | 636    | 92.95 | 482    | 107.95 | 178    |
| 57.05 | 94     | 77.00 | 3509   | 94.05 | 48     | 110.05 | 2258   |

Scan 316 (6.064 min): B7750.D

Modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 111.05 | 347    | 128.00 | 343    | 154.10 | 63     | 168.00 | 172    |
| 112.15 | 17     | 129.00 | 1776   | 155.00 | 140    | 169.10 | 54     |
| 113.05 | 65     | 130.00 | 152    | 156.00 | 177    | 173.00 | 40     |
| 116.15 | 81     | 135.00 | 123    | 157.10 | 46     | 173.90 | 77     |
| 117.05 | 837    | 136.00 | 50     | 157.80 | 35     | 175.00 | 147    |
| 118.05 | 55     | 137.10 | 72     | 158.00 | 32     | 176.10 | 56     |
| 121.90 | 87     | 141.00 | 242    | 160.00 | 52     | 177.10 | 85     |
| 123.00 | 132    | 142.00 | 80     | 161.10 | 108    | 179.00 | 311    |
| 124.00 | 82     | 147.00 | 121    | 165.00 | 75     | 180.10 | 207    |
| 124.90 | 49     | 148.00 | 213    | 166.20 | 66     | 181.10 | 81     |
| 127.00 | 3758   | 148.90 | 57     | 167.00 | 382    | 182.10 | 5      |

Scan 316 (6.064 min): B7750.D

Modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 185.10 | 155    | 205.05 | 451    | 222.95 | 151    | 249.05 | 34     |
| 186.10 | 970    | 206.05 | 1785   | 224.05 | 1088   | 255.05 | 4157   |
| 187.10 | 295    | 207.05 | 238    | 225.05 | 239    | 256.05 | 688    |
| 192.00 | 75     | 207.95 | 66     | 227.05 | 470    | 256.95 | 53     |
| 193.10 | 96     | 210.25 | 50     | 227.95 | 86     | 257.95 | 257    |
| 196.00 | 270    | 211.05 | 79     | 229.05 | 93     | 265.05 | 108    |
| 198.00 | 8456   | 211.65 | 38     | 230.95 | 42     | 273.05 | 139    |
| 199.00 | 631    | 215.95 | 52     | 243.05 | 75     | 274.05 | 352    |
| 201.35 | 77     | 216.95 | 525    | 244.05 | 828    | 275.05 | 1951   |
| 202.85 | 45     | 217.95 | 89     | 245.05 | 118    | 276.05 | 266    |
| 204.05 | 257    | 220.95 | 629    | 246.05 | 185    | 277.05 | 157    |

Scan 316 (6.064 min): B7750.D

Modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z | abund. | m/z | abund. |
|--------|--------|--------|--------|-----|--------|-----|--------|
| 293.00 | 31     | 364.95 | 238    |     |        |     |        |
| 296.00 | 527    | 372.05 | 89     |     |        |     |        |
| 297.00 | 89     | 403.05 | 44     |     |        |     |        |
| 303.00 | 67     | 420.95 | 40     |     |        |     |        |
| 314.00 | 27     | 423.05 | 267    |     |        |     |        |
| 314.90 | 61     | 424.05 | 52     |     |        |     |        |
| 323.10 | 148    | 441.10 | 788    |     |        |     |        |
| 324.10 | 39     | 442.00 | 5436   |     |        |     |        |
| 334.00 | 124    | 443.00 | 1105   |     |        |     |        |
| 352.10 | 49     | 444.10 | 101    |     |        |     |        |
| 353.10 | 51     |        |        |     |        |     |        |

## Quantitation Report

127

Data File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

Acq On : 30 May 95 9:14 am

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

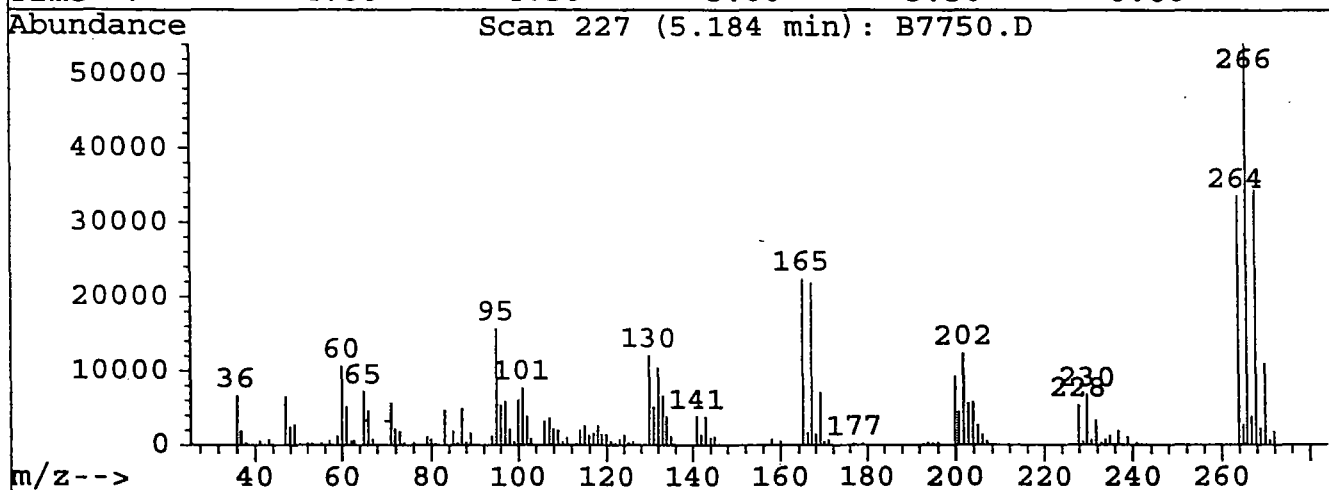
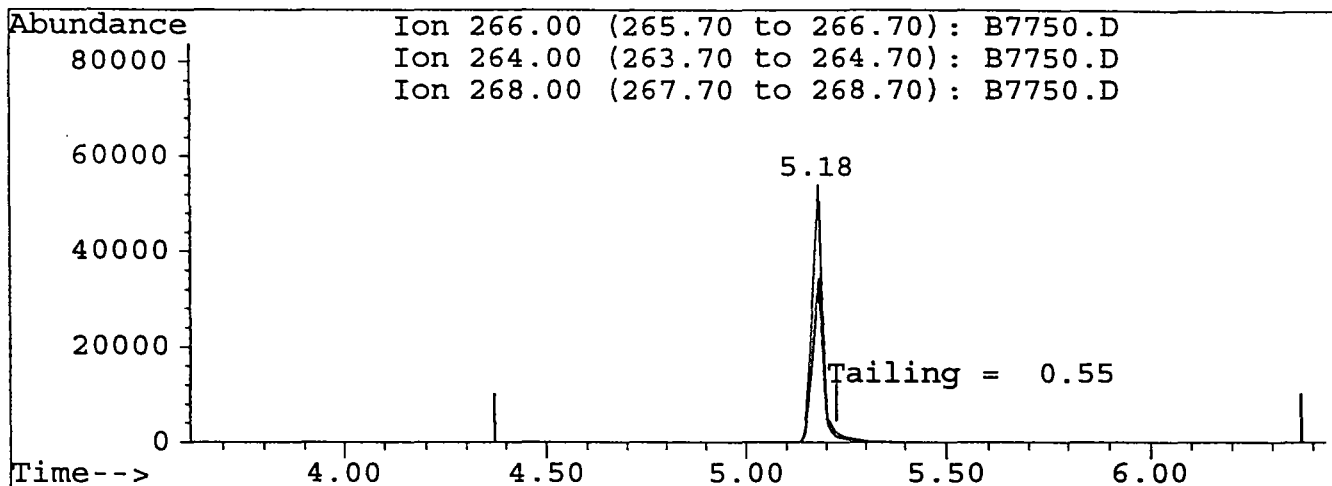
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



TIC: B7750.D

(1) Pentachlorophenol (CM)

5.18min 321.74ug/mL

response 106272

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 62.02 |
| 268.00 | 64.70 | 63.47 |
| 0.00   | 0.00  | 0.00  |

## Quantitation Report

128

Data File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

Acq On : 30 May 95 9:14 am

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

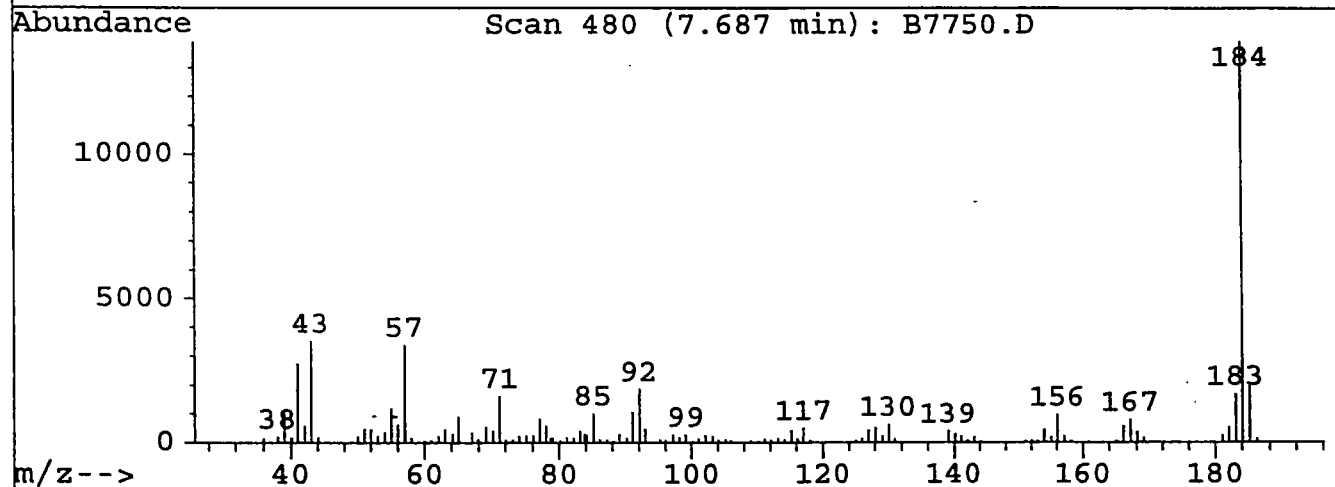
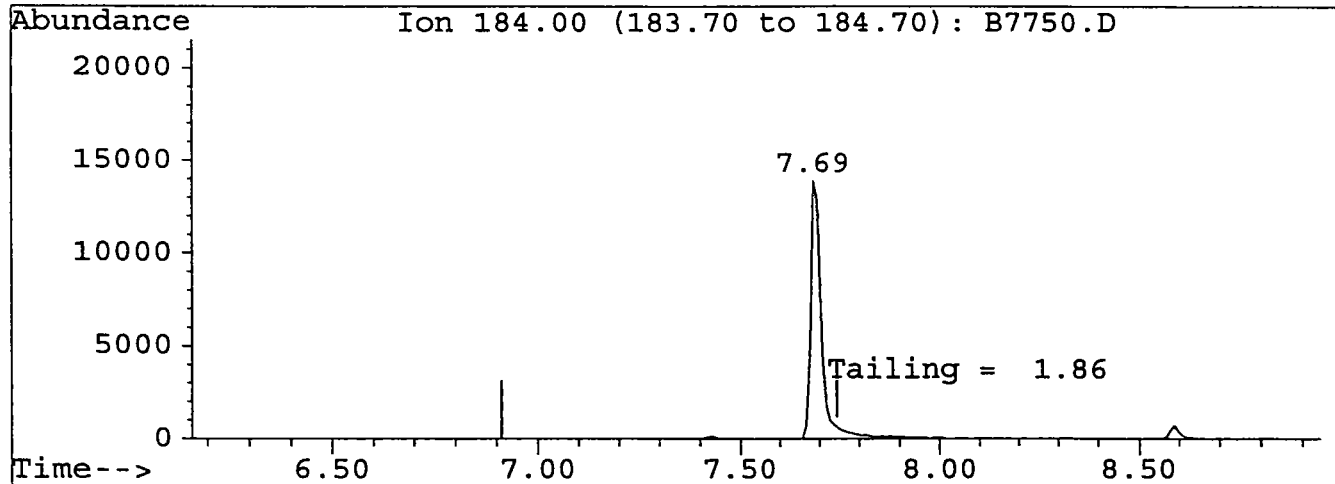
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



TIC: B7750.D

(2) Benzidine

7.69min 86.22ug/ml

response 26489

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 09:37:17 1995  
 Response via : Initial Calibration

## Calibration Files

160 =B7755.D 120 =B7754.D 80 =B7753.D  
 50 =B7752.D 20 =B7751.D

| Compound |                       | 160            | 120   | 80    | 50    | 20    | Avg   | %RSD  |
|----------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|
| -----    |                       |                |       |       |       |       |       |       |
| 1) I     | 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |
| 2) S     | 2-Fluorophenol        | 1.046          | 1.205 | 1.170 | 1.071 | 1.165 | 1.131 | 6.09  |
| 3) S     | Phenol-d5             | 1.808          | 2.019 | 1.924 | 1.724 | 1.888 | 1.873 | 6.00  |
| 4) M     | N-nitrosodimethylamin | 0.599          | 0.546 | 0.436 | 0.731 |       | 0.578 | 21.22 |
| 5)       | Pyridine              | 0.424          | 0.364 | 0.429 | 0.496 |       | 0.428 | 12.65 |
| 6) CM    | Phenol                | 1.442          | 1.792 | 1.686 | 1.698 | 1.721 | 1.668 | 7.94  |
| 7) MT    | bis(2-Chloroethyl)eth | 1.893          | 2.082 | 2.104 | 2.042 | 2.008 | 2.026 | 4.10  |
| 8) M     | 2-Chlorophenol        | 1.138          | 1.284 | 1.307 | 1.245 | 1.372 | 1.269 | 6.83  |
| 9) MT    | 1,3-Dichlorobenzene   | 1.295          | 1.404 | 1.490 | 1.416 | 1.320 | 1.385 | 5.65  |
| 10) CM   | 1,4-Dichlorobenzene   | 1.318          | 1.468 | 1.512 | 1.469 | 1.379 | 1.429 | 5.51  |
| 11) M    | 1,2-Dichlorobenzene   | 1.255          | 1.391 | 1.452 | 1.374 | 1.315 | 1.357 | 5.54  |
| 12) T    | 2-Methylphenol        | 1.109          | 1.268 | 1.262 | 1.164 | 1.220 | 1.204 | 5.61  |
| 13) M    | bis(2-chloroisopropyl | 1.886          | 1.860 | 1.988 | 1.730 | 1.878 | 1.868 | 4.92  |
| 14) T    | 4-Methylphenol        | 1.216          | 1.432 | 1.330 | 1.310 | 1.320 | 1.322 | 5.82  |
| 15) PM   | N-Nitroso-Di-n-propyl | 1.289          | 1.444 | 1.471 | 1.267 | 1.257 | 1.346 | 7.68  |
| 16) M    | Hexachloroethane      | 0.691          | 0.756 | 0.792 | 0.747 | 0.701 | 0.737 | 5.65  |
| -----    |                       |                |       |       |       |       |       |       |
| 17) I    | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |
| 18) S    | Nitrobenzene-d5       | 0.437          | 0.466 | 0.478 | 0.437 | 0.460 | 0.456 | 4.02  |
| 19) M    | Nitrobenzene          | 0.398          | 0.409 | 0.461 | 0.436 | 0.416 | 0.424 | 5.86  |
| 20) M    | Isophorone            | 0.776          | 0.850 | 0.875 | 0.817 | 1.149 | 0.893 | 16.52 |
| 21) MC   | 2-Nitrophenol         | 0.189          | 0.225 | 0.225 | 0.200 | 0.213 | 0.210 | 7.50  |
| 22) M    | 2,4-Dimethylphenol    | 0.362          | 0.429 | 0.388 | 0.382 | 0.407 | 0.394 | 6.49  |
| 23) M    | bis(2-Chloroethoxy)me | 0.441          | 0.448 | 0.467 | 0.455 | 0.469 | 0.456 | 2.57  |
| 24) MC   | 2,4-Dichlorophenol    | 0.271          | 0.299 | 0.307 | 0.292 | 0.322 | 0.298 | 6.39  |
| 25) M    | 1,2,4-Trichlorobenzen | 0.293          | 0.318 | 0.326 | 0.322 | 0.326 | 0.317 | 4.42  |
| 26) M    | Naphthalene           | 0.922          | 0.948 | 1.039 | 0.963 | 1.023 | 0.979 | 5.12  |
| 27) T    | 4-Chloroaniline       | 0.455          | 0.465 | 0.471 | 0.468 | 0.457 | 0.463 | 1.47  |
| 28) MC   | Hexachlorobutadiene   | 0.175          | 0.186 | 0.189 | 0.186 | 0.190 | 0.185 | 3.26  |
| 29) MC   | 4-Chloro-3-methylphen | 0.355          | 0.396 | 0.398 | 0.385 | 0.385 | 0.384 | 4.45  |
| 30) M    | 2-Chloronaphthalene   | 0.672          | 0.680 | 0.719 | 0.700 | 0.709 | 0.696 | 2.81  |
| 31) T    | 2-Methylnaphthalene   | 0.890          | 0.985 | 0.640 | 0.702 | 0.711 | 0.786 | 18.46 |
| -----    |                       |                |       |       |       |       |       |       |
| 32) I    | Acenaphthene-d10      | -----ISTD----- |       |       |       |       |       |       |
| 33) P    | Hexachlorocyclopentad | 0.294          | 0.303 | 0.302 | 0.258 | 0.233 | 0.278 | 11.19 |
| 34) MC   | 2,4,6-Trichlorophenol | 0.470          | 0.452 | 0.413 | 0.381 | 0.361 | 0.415 | 11.10 |
| 35) T    | 2,4,5-Trichlorophenol | 0.221          | 0.317 | 0.348 | 0.370 | 0.365 | 0.324 | 18.94 |
| 36) S    | 2-Fluorobiphenyl      | 1.163          | 1.254 | 1.230 | 1.178 | 1.174 | 1.200 | 3.30  |
| 37) T    | 2-Nitroaniline        | 0.527          | 0.566 | 0.592 | 0.578 | 0.483 | 0.549 | 8.04  |
| 38) M    | Dimethylphthalate     | 1.233          | 1.348 | 1.373 | 1.295 | 1.248 | 1.299 | 4.68  |
| 39) M    | Acenaphthylene        | 1.606          | 1.717 | 1.805 | 1.711 | 1.683 | 1.704 | 4.20  |
| 40) M    | 2,6-Dinitrotoluene    | 0.295          | 0.312 | 0.346 | 0.327 | 0.271 | 0.310 | 9.34  |
| 41) T    | 3-Nitroaniline        | 0.279          | 0.370 | 0.403 | 0.363 | 0.315 | 0.346 | 14.10 |

(#) = Out of Range  
 BNACLP.M

Wed May 31 10:06:54 1995

BNA

Page 1

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 09:37:17 1995  
 Response via : Initial Calibration

## Calibration Files

160 =B7755.D 120 =B7754.D 80 =B7753.D  
 50 =B7752.D 20 =B7751.D

| Compound |    |                       | 160            | 120   | 80    | 50    | 20    | Avg    | %RSD  |
|----------|----|-----------------------|----------------|-------|-------|-------|-------|--------|-------|
| 42)      | CM | Acenaphthene          | 0.982          | 1.056 | 1.036 | 1.024 | 1.028 | 1.025  | 2.65  |
| 43)      | MP | 2,4-Dinitrophenol     | 0.189          | 0.213 | 0.198 | 0.155 | 0.107 | 0.172  | 24.56 |
| 44)      | PM | 4-Nitrophenol         | 0.151          | 0.178 | 0.188 | 0.168 | 0.142 | 0.166  | 11.52 |
| 45)      | T  | Dibenzofuran          | 1.475          | 1.700 | 1.686 | 1.669 | 1.512 | 1.609  | 6.62  |
| 46)      | M  | 2,4-Dinitrotoluene    | 1.132          | 1.243 | 1.193 | 1.143 | 1.125 | 1.167  | 4.29  |
| 47)      | M  | Diethylphthalate      | 1.274          | 1.533 | 1.576 | 1.452 | 1.379 | 1.443  | 8.38  |
| 48)      | M  | Fluorene              | 1.222          | 1.333 | 1.295 | 1.228 | 1.216 | 1.259  | 4.17  |
| 49)      | M  | 4-Chlorophenyl-phenyl | 0.554          | 0.608 | 0.613 | 0.591 | 0.615 | 0.596  | 4.25  |
| 50)      |    | Phenanthrene-d10      | -----ISTD----- |       |       |       |       |        |       |
| 51)      | T  | 4-Nitroaniline        | 0.131          | 0.151 | 0.160 | 0.214 | 0.175 | 0.166  | 18.75 |
| 52)      | MC | 4,6-Dinitro-2-methylp | 0.141          | 0.142 | 0.151 | 0.129 | 0.096 | 0.132  | 16.20 |
| 53)      | T  | n-Nitrosodiphenylamin | 0.458          | 0.524 | 0.531 | 0.530 | 0.499 | 0.508  | 6.15  |
| 54)      | S  | 2,4,6-Tribromophenol  | 0.098          | 0.113 | 0.112 | 0.106 | 0.111 | 0.108  | 5.77  |
| 55)      |    | 1,2-Diphenylhydrazine | 1.065          | 1.251 | 1.281 | 1.312 | 1.147 | 1.211  | 8.48  |
| 56)      | M  | 4-Bromophenyl-phenyle | 0.186          | 0.198 | 0.212 | 0.220 | 0.213 | 0.206  | 6.61  |
| 57)      | M  | Hexachlorobenzene     | 0.138          | 0.231 | 0.244 | 0.228 | 0.233 | 0.215  | 20.20 |
| 58)      | CM | Pentachlorophenol     | 0.131          | 0.150 | 0.154 | 0.133 | 0.119 | 0.137  | 10.26 |
| 59)      | M  | Phenanthrene          | 0.983          | 1.142 | 1.181 | 1.095 | 1.071 | 1.094  | 6.87  |
| 60)      | M  | Anthracene            | 0.809          | 1.021 | 1.128 | 1.028 | 1.059 | 1.009  | 11.85 |
| 61)      |    | Carbazole             | 0.656          | 1.051 | 1.106 | 0.964 | 0.941 | 0.944  | 18.43 |
| 62)      | M  | Di-n-butylphthalate   | 1.441          | 1.645 | 1.749 | 1.638 | 1.559 | 1.606  | 7.11  |
| 63)      | MC | Fluoranthene          | 0.922          | 0.947 | 1.162 | 1.124 | 1.019 | 1.035  | 10.22 |
| 64)      | I  | Chrysene-d12          | -----ISTD----- |       |       |       |       |        |       |
| 65)      |    | Benzidine             | 0.569          | 0.427 | 0.364 | 0.399 | 0.428 | 0.437  | 17.86 |
| 66)      | M  | Pyrene                | 1.857          | 1.452 | 1.658 | 1.267 | 1.273 | 1.502  | 16.98 |
| 67)      | S  | Terphenyl-d14         | 1.355          | 1.039 | 1.124 | 0.880 | 0.911 | 1.062  | 17.99 |
| 68)      | M  | Butylbenzylphthalate  | 1.130          | 0.958 | 1.080 | 0.843 | 0.796 | 0.962  | 15.08 |
| 69)      | M  | Benzo[a]anthracene    | 1.813          | 1.529 | 1.731 | 1.342 | 1.163 | 1.516  | 17.74 |
| 70)      | M  | 3,3'-Dichlorobenzidin | 0.345          | 0.347 | 0.471 | 0.353 | 0.416 | 0.386  | 14.47 |
| 71)      | M  | Chrysene              | 0.661          | 0.691 | 1.035 | 0.768 | 1.060 | 0.843  | 22.65 |
| 72)      | M  | bis(2-Ethylhexyl)phth | 1.536          | 1.331 | 1.560 | 1.243 | 1.151 | 1.364  | 13.17 |
| 73)      | I  | Perylene-d12          | -----ISTD----- |       |       |       |       |        |       |
| 74)      | MC | Di-n-octylphthalate   | 4.287          | 5.460 | 5.911 | 4.718 |       | 5.094  | 14.31 |
| 75)      | M  | Benzo[b]fluoranthene  | 2.445          | 2.215 | 2.794 | 2.522 | 2.357 | 2.467  | 8.75  |
| 76)      | m  | Benzo[k]fluoranthene  | 1.248          | 0.961 | 1.258 | 1.108 | 1.376 | 1.190  | 13.40 |
| 77)      | mc | Benzo[a]pyrene        | 1.114          | 0.945 | 1.269 | 1.355 | 1.450 | 1.227  | 16.33 |
| 78)      | m  | Indeno[1,2,3-cd]pyren | 0.493          | 0.521 | 0.450 | 0.417 | 0.381 | 0.452  | 12.46 |
| 79)      | m  | Dibenz[a,h]anthracene | 0.471          | 0.517 | 0.454 | 0.365 | 0.371 | 0.436  | 15.14 |
| 80)      | M  | Benzo[g,h,i]perylene  | 0.385          | 0.372 | 0.381 | 0.326 | 0.314 | 0.356  | 9.28  |
| 81)      |    | 1-Methyl naphthalene  |                |       |       |       |       | 0.000# | -1.00 |
| 82)      |    | 7,12-Dimethylbenz(a)a |                |       |       |       |       | 0.000# | -1.00 |

(#) = Out of Range  
 BNACLP.M

Wed May 31 10:07:04 1995

BNA

Page 2



Data File : c:\hpchem\1\data2\b7751.d

Vial: 2

Acq On : 30 May 95 9:44 am

Operator: SCOTTV

Sample : 20 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 25556    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.74 | 136  | 103257   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.06 | 164  | 74029    | 40.00 | ug/mL | -0.32    |
| 50) Phenanthrene-d10      | 22.53 | 188  | 123712   | 40.00 | ug/mL | -0.36    |
| 64) Chrysene-d12          | 30.59 | 240  | 101227   | 40.00 | ug/mL | -0.44    |
| 73) Perylene-d12          | 34.60 | 264  | 55866    | 40.00 | ug/mL | -0.44    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 37223  | 52.40 | ug/mL | 52.40%    |
| 3) Phenol-d5                | 8.39  | 99  | 60299  | 61.22 | ug/mL | 61.22%    |
| 18) Nitrobenzene-d5         | 10.70 | 82  | 59323  | 55.23 | ug/mL | 55.23%    |
| 36) 2-Fluorobiphenyl        | 16.21 | 172 | 108666 | 45.06 | ug/mL | 45.06%    |
| 54) 2,4,6-Tribromophenol    | 20.47 | 330 | 17160  | 50.11 | ug/mL | 50.11%    |
| 67) Terphenyl-d14           | 27.65 | 244 | 115295 | 44.07 | ug/mL | 44.07%    |

| Target Compounds                |       |     |       |       |        | Qvalue |
|---------------------------------|-------|-----|-------|-------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.68  | 74  | 11819 | 64.09 | ug/mlm | 0      |
| 6) Phenol                       | 8.41  | 94  | 21988 | 23.29 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.42 | 93  | 25656 | 25.13 | ug/mL  | 94     |
| 8) 2-Chlorophenol               | 8.45  | 128 | 17535 | 22.70 | ug/mL  | 91     |
| 9) 1,3-Dichlorobenzene          | 8.84  | 146 | 16873 | 19.30 | ug/mL  | 95     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146 | 17619 | 19.90 | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.47  | 146 | 16808 | 18.80 | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.13 | 108 | 15585 | 20.61 | ug/mLm | 62     |
| 13) bis(2-chloroisopropyl) ethe | 10.13 | 45  | 23996 | 14.64 | ug/mL# | 8      |
| 14) 4-Methylphenol              | 10.63 | 108 | 16867 | 20.62 | ug/mL  | 96     |
| 15) N-Nitroso-Di-n-propylamine  | 10.47 | 70  | 16063 | 19.56 | ug/mL  | 95     |
| 16) Hexachloroethane            | 10.43 | 117 | 8960  | 16.89 | ug/mL  | 93     |
| 19) Nitrobenzene                | 10.74 | 77  | 21469 | 22.12 | ug/mL# | 73     |
| 20) Isophorone                  | 10.70 | 82  | 59319 | 34.39 | ug/mL# | 68     |
| 21) 2-Nitrophenol               | 11.70 | 139 | 11002 | 19.97 | ug/mL  | 97     |
| 22) 2,4-Dimethylphenol          | 10.63 | 107 | 20989 | 21.66 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.16  | 93  | 24189 | 20.63 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.47 | 162 | 16624 | 20.82 | ug/mL  | 97     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180 | 16825 | 18.32 | ug/mL  | 99     |
| 26) Naphthalene                 | 12.80 | 128 | 52795 | 20.11 | ug/mL# | 89     |
| 27) 4-Chloroaniline             | 13.15 | 127 | 23600 | 19.35 | ug/mL  | 98     |
| 28) Hexachlorobutadiene         | 13.32 | 225 | 9812  | 16.62 | ug/mL  | 99     |
| 29) 4-Chloro-3-methylphenol     | 14.86 | 107 | 19868 | 19.58 | ug/mL  | 90     |
| 30) 2-Chloronaphthalene         | 16.38 | 162 | 36612 | 17.42 | ug/mL  | 97     |
| 31) 2-Methylnaphthalene         | 14.94 | 142 | 36729 | 19.16 | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.48 | 237 | 8635  | 12.84 | ug/mL  | 99     |
| 34) 2,4,6-Trichlorophenol       | 15.92 | 196 | 13356 | 18.21 | ug/mL  | 96     |
| 35) 2,4,5-Trichlorophenol       | 16.02 | 196 | 13494 | 17.54 | ug/mL  | 98     |

(#)=qualifier out of range (m)=manual integration

b7751.d BNACLP.M

Wed May 31 10:07:53 1995

BNA

Page 1

## Quantitation Report

132

Data File : c:\hpchem\1\data2\b7751.d

Vial: 2

Acq On : 30 May 95 9:44 am

Operator: SCOTTV

Sample : 20 STD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.85 | 65   | 17876    | 21.08 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.62 | 163  | 46196    | 21.25 | ug/mL  | 100    |
| 39) Acenaphthylene             | 17.58 | 152  | 62290    | 16.75 | ug/mL  | 98     |
| 40) 2,6-Dinitrotoluene         | 17.69 | 165  | 10022    | 19.61 | ug/mL  | 99     |
| 41) 3-Nitroaniline             | 18.12 | 138  | 11669    | 15.38 | ug/mL  | 98     |
| 42) Acenaphthene               | 18.14 | 153  | 38044    | 16.56 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.44 | 184  | 3955     | 15.55 | ug/mLm | 95     |
| 44) 4-Nitrophenol              | 18.93 | 109  | 5206     | 21.05 | ug/mL  | 91     |
| 45) Dibenzofuran               | 18.69 | 168  | 55975    | 17.19 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.73 | 165  | 41635    | 17.45 | ug/mL# | 34     |
| 47) Diethylphthalate           | 19.83 | 149  | 51035    | 19.15 | ug/mL  | 99     |
| 48) Fluorene                   | 19.73 | 166  | 45015    | 17.98 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.93 | 204  | 22774    | 18.71 | ug/mL  | 94     |
| 51) 4-Nitroaniline             | 19.95 | 138  | 10837    | 22.35 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.06 | 198  | 5946     | 17.19 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.33 | 169  | 30841    | 25.02 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.39 | 77   | 70933    | 22.38 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.37 | 248  | 13195    | 20.03 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.35 | 284  | 14382    | 18.78 | ug/mL# | 51     |
| 58) Pentachlorophenol          | 22.07 | 266  | 7390     | 16.37 | ug/mL  | 99     |
| 59) Phenanthrene               | 22.61 | 178  | 66272    | 19.37 | ug/mL  | 98     |
| 60) Anthracene                 | 22.74 | 178  | 65476    | 19.46 | ug/mLm | 97     |
| 61) Carbazole                  | 23.40 | 167  | 58205    | 18.79 | ug/ml  | 100    |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 96445    | 16.33 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.19 | 202  | 63031    | 16.63 | ug/mLm | 93     |
| 65) Benzidine                  | 26.88 | 184  | 21650    | 24.83 | ug/mlm | 100    |
| 66) Pyrene                     | 26.83 | 202  | 64445    | 15.73 | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.43 | 149  | 40290    | 16.46 | ug/mL  | 90     |
| 69) Benzo[a]anthracene         | 30.57 | 228  | 58860    | 18.72 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 21074    | 24.51 | ug/mL  | 98     |
| 71) Chrysene                   | 30.57 | 228  | 53653    | 19.46 | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.40 | 149  | 58259    | 15.97 | ug/mL  | 100    |
| 74) Di-n-octylphthalate        | 33.31 | 149  | 92370    | 9.30  | ug/mL  | 98     |
| 75) Benzo[b]fluoranthene       | 33.62 | 252  | 65848    | 26.94 | ug/mLm | 98     |
| 76) Benzo[k]fluoranthene       | 33.70 | 252  | 38434    | 16.42 | ug/mLm | 91     |
| 77) Benzo[a]pyrene             | 34.45 | 252  | 40502    | 24.28 | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.16 | 276  | 10646    | 15.19 | ug/mL# | 85     |
| 79) Dibenz[a,h]anthracene      | 37.27 | 278  | 10355    | 16.78 | ug/mL# | 91     |
| 80) Benzo[g,h,i]perylene       | 37.74 | 276  | 8780     | 14.39 | ug/mLm | 97     |

(#) = qualifier out of range (m) = manual integration

b7751.d BNACLP.M

Wed May 31 10:07:58 1995

BNA

Page 2

## Quantitation Report

Data File : c:\hpchem\1\data2\b7751.d

Acq On : 30 May 95 9:44 am

Sample : 20 STD.....

Misc :

Quant Time: May 31 10:03 1995

Vial: 2 133

Operator: SCOTTV

Converted from RTE d Inst : ABNA

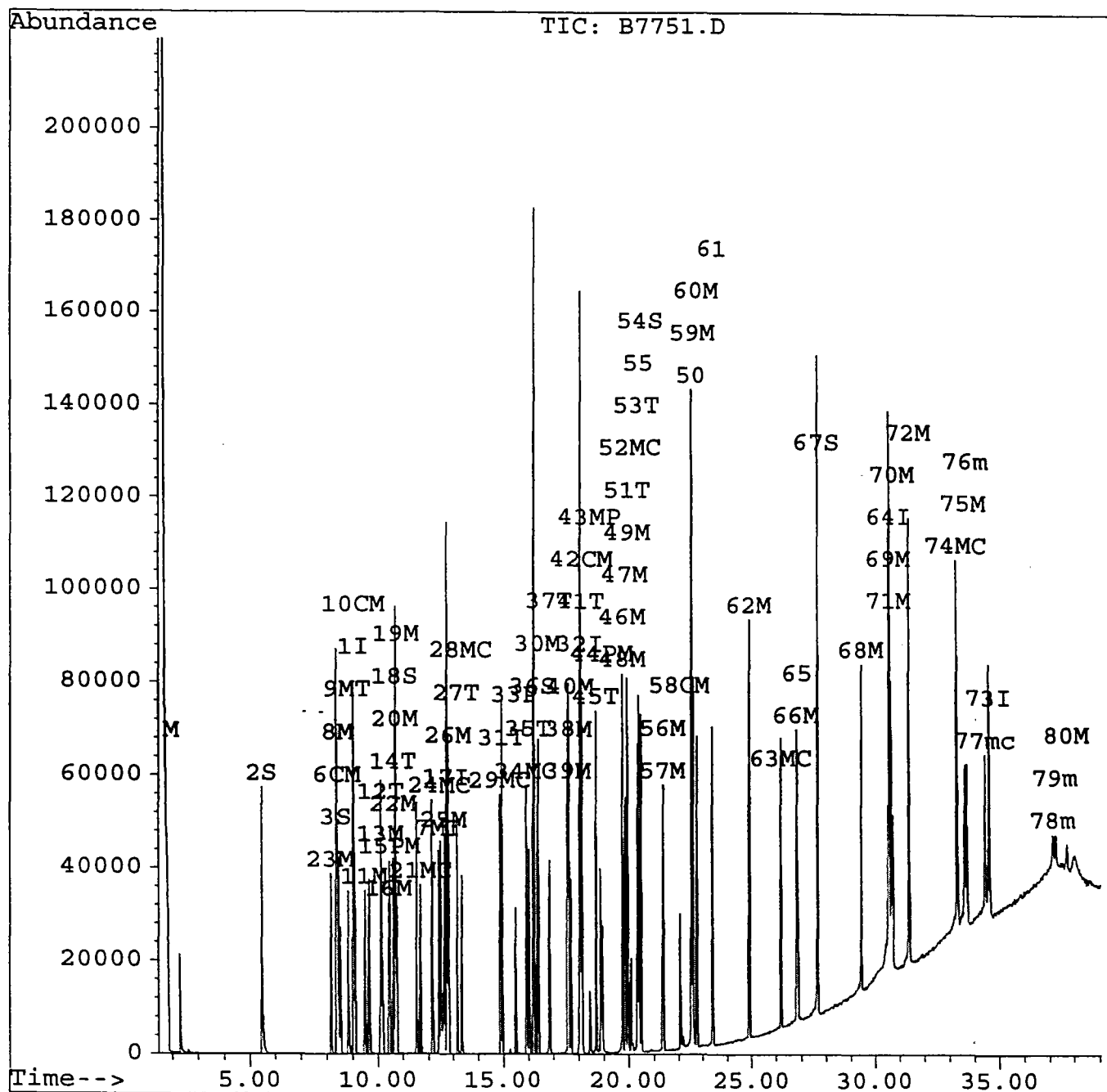
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



## Quantitation Report

134

Data File : c:\hpchem\1\data2\b7752.d

Vial: 3

Acq On : 30 May 95 10:35 am

Operator: SCOTT V

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.03  | 152  | 29664    | 40.00 | ug/mL | -0.27    |
| 17) Naphthalene-d8        | 12.75 | 136  | 124059   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.05 | 164  | 81773    | 40.00 | ug/mL | -0.33    |
| 50) Phenanthrene-d10      | 22.52 | 188  | 131721   | 40.00 | ug/ml | -0.37    |
| 64) Chrysene-d12          | 30.58 | 240  | 118287   | 40.00 | ug/mL | -0.45    |
| 73) Perylene-d12          | 34.60 | 264  | 45273    | 40.00 | ug/mL | -0.45    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 39705  | 48.15 | ug/mL | 48.15%    |
| 3) Phenol-d5                | 8.39  | 99  | 63940  | 55.92 | ug/mL | 55.92%    |
| 18) Nitrobenzene-d5         | 10.71 | 82  | 67799  | 52.53 | ug/mL | 52.53%    |
| 36) 2-Fluorobiphenyl        | 16.20 | 172 | 120432 | 45.21 | ug/mL | 45.21%    |
| 54) 2,4,6-Tribromophenol    | 20.46 | 330 | 17504  | 48.01 | ug/mL | 48.01%    |
| 67) Terphenyl-d14           | 27.65 | 244 | 130090 | 42.56 | ug/mL | 42.56%    |

| Target Compounds                |       |     |        |        |        | Qvalue |
|---------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.70  | 74  | 27115  | 126.68 | ug/mlm | 0      |
| 6) Phenol                       | 8.43  | 94  | 62958  | 57.46  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.42 | 93  | 75709  | 63.88  | ug/mL  | 99     |
| 8) 2-Chlorophenol               | 8.45  | 128 | 46179  | 51.50  | ug/mL# | 84     |
| 9) 1,3-Dichlorobenzene          | 8.84  | 146 | 52488  | 51.73  | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146 | 54452  | 52.99  | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.47  | 146 | 50964  | 49.12  | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.13 | 108 | 43177  | 49.20  | ug/mLm | 65     |
| 13) bis(2-chloroisopropyl) ethe | 10.09 | 45  | 64159  | 33.73  | ug/mL# | 67     |
| 14) 4-Methylphenol              | 10.63 | 108 | 48583  | 51.18  | ug/mL  | 98     |
| 15) N-Nitroso-Di-n-propylamine  | 10.49 | 70  | 46969  | 49.27  | ug/mL  | 99     |
| 16) Hexachloroethane            | 10.42 | 117 | 27701  | 44.99  | ug/mL# | 69     |
| 19) Nitrobenzene                | 10.76 | 77  | 67644  | 58.02  | ug/mL  | 89     |
| 20) Isophorone                  | 11.57 | 82  | 126657 | 61.12  | ug/mL  | 97     |
| 21) 2-Nitrophenol               | 11.69 | 139 | 31019  | 46.87  | ug/mL  | 88     |
| 22) 2,4-Dimethylphenol          | 10.63 | 107 | 59303  | 50.95  | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.16  | 93  | 70617  | 50.13  | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.48 | 162 | 45218  | 47.12  | ug/mL  | 98     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180 | 49933  | 45.25  | ug/mL  | 98     |
| 26) Naphthalene                 | 12.81 | 128 | 149358 | 47.34  | ug/mL# | 91     |
| 27) 4-Chloroaniline             | 13.15 | 127 | 72575  | 49.52  | ug/mL  | 100    |
| 28) Hexachlorobutadiene         | 13.33 | 225 | 28798  | 40.59  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol     | 14.87 | 107 | 59715  | 48.98  | ug/mL  | 99     |
| 30) 2-Chloronaphthalene         | 16.37 | 162 | 108511 | 42.96  | ug/ml  | 97     |
| 31) 2-Methylnaphthalene         | 14.94 | 142 | 108935 | 47.31  | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.46 | 237 | 26413  | 35.57  | ug/mL  | 98     |
| 34) 2,4,6-Trichlorophenol       | 15.91 | 196 | 38933  | 48.06  | ug/mL  | 99     |
| 35) 2,4,5-Trichlorophenol       | 16.00 | 196 | 37853  | 44.55  | ug/mL  | 100    |

(#)= qualifier out of range (m) = manual integration

b7752.d BNACLP.M

Wed May 31 10:08:38 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7752.d

Vial: 3

Acq On : 30 May 95 10:35 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.85 | 65   | 59044    | 63.04 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.62 | 163  | 132350   | 55.11 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.58 | 152  | 174919   | 42.58 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.70 | 165  | 33402    | 59.16 | ug/mL  | 98     |
| 41) 3-Nitroaniline             | 18.12 | 138  | 37075    | 44.25 | ug/mL  | 98     |
| 42) Acenaphthene               | 18.14 | 153  | 104702   | 41.25 | ug/mL  | 100    |
| 43) 2,4-Dinitrophenol          | 18.45 | 184  | 15812    | 56.30 | ug/mL# | 91     |
| 44) 4-Nitrophenol              | 18.93 | 109  | 17219    | 63.03 | ug/mL# | 83     |
| 45) Dibenzofuran               | 18.70 | 168  | 170626   | 47.45 | ug/mL  | 97     |
| 46) 2,4-Dinitrotoluene         | 19.72 | 165  | 116800   | 44.33 | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 148456   | 50.42 | ug/mL  | 98     |
| 48) Fluorene                   | 19.72 | 166  | 125476   | 45.36 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.92 | 204  | 60420    | 44.93 | ug/mL  | 95     |
| 51) 4-Nitroaniline             | 19.99 | 138  | 35220    | 68.23 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.09 | 198  | 21308    | 57.84 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.32 | 169  | 87310    | 66.53 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.38 | 77   | 216080   | 64.04 | ug/mL  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.36 | 248  | 36244    | 51.67 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.34 | 284  | 37570    | 46.07 | ug/mL# | 76     |
| 58) Pentachlorophenol          | 22.06 | 266  | 21962    | 45.70 | ug/mL  | 98     |
| 59) Phenanthrene               | 22.60 | 178  | 180287   | 49.49 | ug/mL  | 100    |
| 60) Anthracene                 | 22.75 | 178  | 169255   | 47.24 | ug/mLm | 99     |
| 61) Carbazole                  | 23.39 | 167  | 158797   | 48.15 | ug/mL  | 99     |
| 62) Di-n-butylphthalate        | 24.91 | 149  | 269738   | 42.89 | ug/mL  | 100    |
| 63) Fluoranthene               | 26.20 | 202  | 185037   | 45.86 | ug/mLm | 81     |
| 65) Benzidine                  | 26.87 | 184  | 58973    | 57.88 | ug/mLm | 100    |
| 66) Pyrene                     | 26.84 | 202  | 187374   | 39.15 | ug/mL  | 97     |
| 68) Butylbenzylphthalate       | 29.42 | 149  | 124656   | 43.57 | ug/mL  | 91     |
| 69) Benzo[a]anthracene         | 30.56 | 228  | 198412   | 54.00 | ug/mL  | 100    |
| 70) 3,3'-Dichlorobenzidine     | 30.71 | 252  | 52146    | 51.91 | ug/mL  | 98     |
| 71) Chrysene                   | 30.66 | 228  | 113518   | 35.24 | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.39 | 149  | 183732   | 43.10 | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.30 | 149  | 267010   | 33.18 | ug/mL  | 98     |
| 75) Benzo[b]fluoranthene       | 33.63 | 252  | 142718   | 72.04 | ug/mL  | 98     |
| 76) Benzo[k]fluoranthene       | 33.71 | 252  | 62677    | 33.05 | ug/mLm | 95     |
| 77) Benzo[a]pyrene             | 34.44 | 252  | 76698    | 56.74 | ug/mLm | 99     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.16 | 276  | 23591    | 41.53 | ug/mLm | 96     |
| 79) Dibenz[a,h]anthracene      | 37.28 | 278  | 20678    | 41.35 | ug/mL  | 96     |
| 80) Benzo[g,h,i]perylene       | 37.74 | 276  | 18451    | 37.32 | ug/mL  | 95     |

(#) = qualifier out of range (m) = manual integration

## 136

Data File : c:\hpchem\1\data2\b7752.d

Acq On : 30 May 95 10:35 am

Sample : 50 STD.....

Misc :

Quant Time: May 31 10:04 1995

Vial: 3

Operator: SCOTTV

Converted from RTE d Inst : ABNA

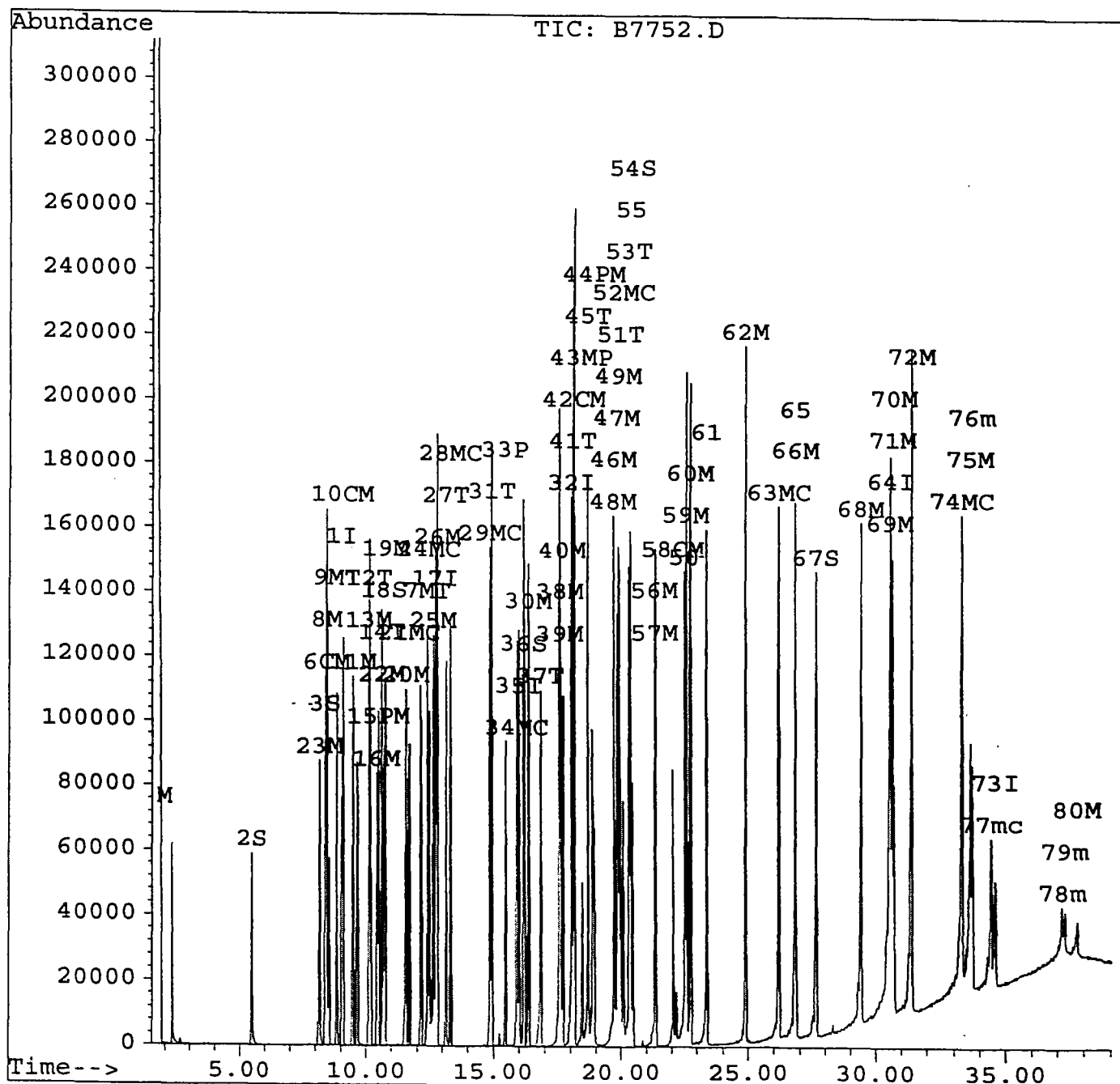
BT Multplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



## Quantitation Report

137

Data File : c:\hpchem\1\data2\b7753.d

Vial: 4

Acq On : 30 May 95 11:27 am

Operator: SCOTTV

Sample : 80 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 29814    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.75 | 136  | 126317   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.05 | 164  | 87574    | 40.00 | ug/mL | -0.33    |
| 50) Phenanthrene-d10      | 22.54 | 188  | 151522   | 40.00 | ug/ml | -0.35    |
| 64) Chrysene-d12          | 30.60 | 240  | 106944   | 40.00 | ug/mL | -0.42    |
| 73) Perylene-d12          | 34.60 | 264  | 39840    | 40.00 | ug/mL | -0.45    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 43593  | 52.60 | ug/mL | 52.60%    |
| 3) Phenol-d5                | 8.41  | 99  | 71703  | 62.40 | ug/mL | 62.40%    |
| 18) Nitrobenzene-d5         | 10.72 | 82  | 75552  | 57.49 | ug/mL | 57.49%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172 | 134602 | 47.18 | ug/mL | 47.18%    |
| 54) 2,4,6-Tribromophenol    | 20.48 | 330 | 21167  | 50.47 | ug/mL | 50.47%    |
| 67) Terphenyl-d14           | 27.65 | 244 | 150199 | 54.35 | ug/mL | 54.35%    |

| Target Compounds                |       |     |        |        |        | Qvalue |
|---------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.62  | 74  | 25992  | 120.82 | ug/ml  | 100    |
| 6) Phenol                       | 8.45  | 94  | 100529 | 91.29  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.44 | 93  | 125480 | 105.34 | ug/mL  | 99     |
| 8) 2-Chlorophenol               | 8.45  | 128 | 77924  | 86.47  | ug/mL# | 89     |
| 9) 1,3-Dichlorobenzene          | 8.86  | 146 | 88850  | 87.12  | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146 | 90142  | 87.29  | ug/mL  | 98     |
| 11) 1,2-Dichlorobenzene         | 9.49  | 146 | 86576  | 83.03  | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.15 | 108 | 75232  | 85.29  | ug/mLm | 63     |
| 13) bis(2-chloroisopropyl) ethe | 10.11 | 45  | 118548 | 62.01  | ug/mL# | 81     |
| 14) 4-Methylphenol              | 10.65 | 108 | 79296  | 83.11  | ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine  | 10.53 | 70  | 87737  | 91.57  | ug/mL  | 94     |
| 16) Hexachloroethane            | 10.44 | 117 | 47246  | 76.35  | ug/mL  | 93     |
| 19) Nitrobenzene                | 10.78 | 77  | 116413 | 98.06  | ug/mL# | 86     |
| 20) Isophorone                  | 11.61 | 82  | 221062 | 104.76 | ug/mL  | 99     |
| 21) 2-Nitrophenol               | 11.71 | 139 | 56797  | 84.29  | ug/mL  | 91     |
| 22) 2,4-Dimethylphenol          | 10.65 | 107 | 97981  | 82.67  | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.18  | 93  | 117962 | 82.25  | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.50 | 162 | 77661  | 79.49  | ug/mL  | 99     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180 | 82424  | 73.37  | ug/mL  | 100    |
| 26) Naphthalene                 | 12.83 | 128 | 262498 | 81.72  | ug/mL# | 92     |
| 27) 4-Chloroaniline             | 13.17 | 127 | 118867 | 79.65  | ug/mL  | 99     |
| 28) Hexachlorobutadiene         | 13.33 | 225 | 47670  | 66.00  | ug/mL  | 96     |
| 29) 4-Chloro-3-methylphenol     | 14.87 | 107 | 100652 | 81.09  | ug/mL  | 90     |
| 30) 2-Chloronaphthalene         | 16.39 | 162 | 181668 | 70.65  | ug/ml  | 100    |
| 31) 2-Methylnaphthalene         | 14.94 | 142 | 161698 | 68.97  | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.46 | 237 | 52969  | 66.60  | ug/mL  | 100    |
| 34) 2,4,6-Trichlorophenol       | 15.93 | 196 | 72387  | 83.44  | ug/mL  | 98     |
| 35) 2,4,5-Trichlorophenol       | 16.00 | 196 | 60973  | 67.01  | ug/mL  | 98     |

(#)=qualifier out of range (m)=manual integration

b7753.d BNACLP.M

Wed May 31 10:09:24 1995

BNA

Page 1

## Quantitation Report

138

Data File : c:\hpchem\1\data2\b7753.d

Vial: 4

Acq On : 30 May 95 11:27 am

Operator: SCOTTV

Sample : 80 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.87 | 65   | 103690   | 103.37 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.66 | 163  | 240471   | 93.49  | ug/mL# | 99     |
| 39) Acenaphthylene             | 17.60 | 152  | 316138   | 71.86  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.74 | 165  | 60631    | 100.28 | ug/mL  | 92     |
| 41) 3-Nitroaniline             | 18.16 | 138  | 70580    | 78.65  | ug/mL  | 92     |
| 42) Acenaphthene               | 18.16 | 153  | 181405   | 66.74  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.47 | 184  | 34630    | 115.13 | ug/mL  | 93     |
| 44) 4-Nitrophenol              | 18.95 | 109  | 33002    | 112.80 | ug/mL  | 86     |
| 45) Dibenzofuran               | 18.70 | 168  | 295374   | 76.70  | ug/mL  | 95     |
| 46) 2,4-Dinitrotoluene         | 19.74 | 165  | 209002   | 74.07  | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 275990   | 87.53  | ug/mL  | 98     |
| 48) Fluorene                   | 19.74 | 166  | 226899   | 76.60  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 107387   | 74.57  | ug/mL  | 95     |
| 51) 4-Nitroaniline             | 20.03 | 138  | 48638    | 81.91  | ug/mL  | 96     |
| 52) 4,6-Dinitro-2-methylphenol | 20.11 | 198  | 45736    | 107.93 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.34 | 169  | 161028   | 106.67 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.40 | 77   | 388272   | 100.03 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.38 | 248  | 64383    | 79.79  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 73929    | 78.80  | ug/mL# | 70     |
| 58) Pentachlorophenol          | 22.06 | 266  | 46630    | 84.35  | ug/mL  | 97     |
| 59) Phenanthrene               | 22.62 | 178  | 357765   | 85.38  | ug/mL  | 99     |
| 60) Anthracene                 | 22.77 | 178  | 341982   | 82.98  | ug/mLm | 98     |
| 61) Carbazole                  | 23.41 | 167  | 335154   | 88.34  | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.91 | 149  | 529878   | 73.24  | ug/mL  | 99     |
| 63) Fluoranthene               | 26.20 | 202  | 352244   | 75.89  | ug/mLm | 91     |
| 65) Benzidine                  | 26.88 | 184  | 77859    | 84.53  | ug/ml  | 100    |
| 66) Pyrene                     | 26.84 | 202  | 354638   | 81.96  | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.42 | 149  | 231051   | 89.32  | ug/mL  | 95     |
| 69) Benzo[a]anthracene         | 30.58 | 228  | 370214   | 111.44 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 100778   | 110.96 | ug/mL  | 98     |
| 71) Chrysene                   | 30.68 | 228  | 221302   | 75.99  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.39 | 149  | 333704   | 86.58  | ug/mL  | 97     |
| 74) Di-n-octylphthalate        | 33.30 | 149  | 471006   | 66.51  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.63 | 252  | 222662   | 127.72 | ug/mL  | 97     |
| 76) Benzo[k]fluoranthene       | 33.71 | 252  | 100220   | 60.05  | ug/mLm | 94     |
| 77) Benzo[a]pyrene             | 34.44 | 252  | 101126   | 85.01  | ug/mLm | 99     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.17 | 276  | 35858    | 71.73  | ug/mL  | 88     |
| 79) Dibenz[a,h]anthracene      | 37.28 | 278  | 36175    | 82.20  | ug/mL  | 94     |
| 80) Benzo[g,h,i]perylene       | 37.75 | 276  | 30352    | 69.77  | ug/mLm | 99     |

(# ) = qualifier out of range (m) = manual integration

b7753.d BNACLP.M

Wed May 31 10:09:31 1995

BNA

Page 2



Data File : c:\hpchem\1\data2\b7753.d

Acq On : 30 May 95 11:27 am

Sample : 80 STD.....

Misc :

Quant Time: May 31 9:32 1995

Vial: 4

Operator: SCOTTV

Converted from RTE d Inst : ABNA

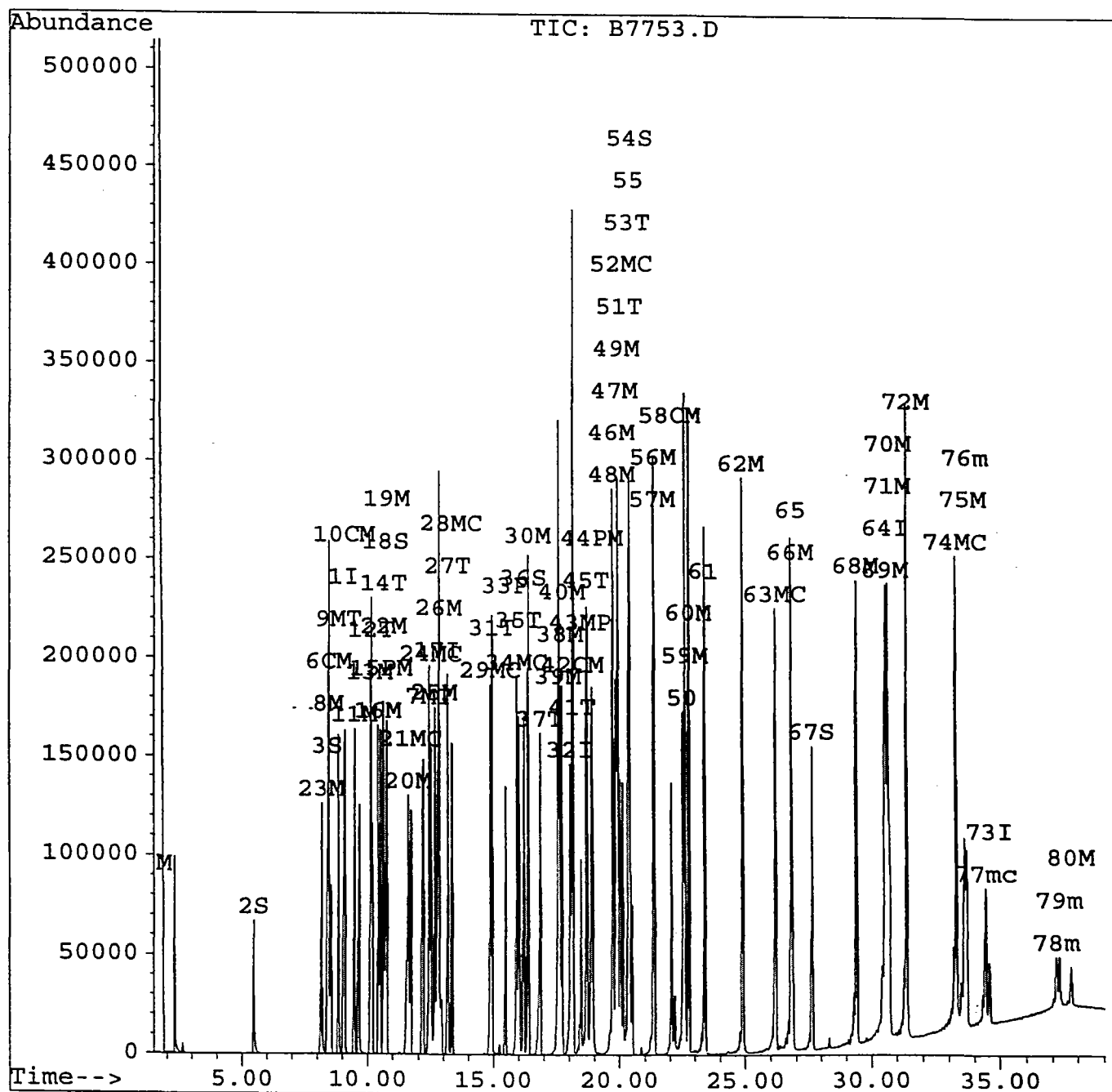
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7754.d

Vial: 5

Acq On : 30 May 95 12:20 pm

Operator: SCOTTV

Sample : 120 STD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min)  |
|---------------------------------|-------|------|----------|--------|--------|-----------|
| 1) 1,4-Dichlorobenzene-d4       | 9.05  | 152  | 27011    | 40.00  | ug/mL  | -0.26     |
| 17) Naphthalene-d8              | 12.77 | 136  | 112346   | 40.00  | ug/mL  | -0.26     |
| 32) Acenaphthene-d10            | 18.05 | 164  | 74142    | 40.00  | ug/mL  | -0.33     |
| 50) Phenanthrene-d10            | 22.53 | 188  | 133454   | 40.00  | ug/mL  | -0.36     |
| 64) Chrysene-d12                | 30.59 | 240  | 102268   | 40.00  | ug/mL  | -0.43     |
| 73) Perylene-d12                | 34.61 | 264  | 30843    | 40.00  | ug/mL  | -0.44     |
| System Monitoring Compounds     |       |      |          |        |        | %Recovery |
| 2) 2-Fluorophenol               | 5.47  | 112  | 40691    | 54.19  | ug/mL  | 54.19%    |
| 3) Phenol-d5                    | 8.41  | 99   | 68173    | 65.48  | ug/mL  | 65.48%    |
| 18) Nitrobenzene-d5             | 10.73 | 82   | 65499    | 56.04  | ug/mL  | 56.04%    |
| 36) 2-Fluorobiphenyl            | 16.22 | 172  | 116201   | 48.11  | ug/mL  | 48.11%    |
| 54) 2,4,6-Tribromophenol        | 20.48 | 330  | 18886    | 51.13  | ug/mL  | 51.13%    |
| 67) Terphenyl-d14               | 27.64 | 244  | 132840   | 50.26  | ug/mL  | 50.26%    |
| Target Compounds                |       |      |          |        |        | Qvalue    |
| 4) N-nitrosodimethylamine       | 1.64  | 74   | 44263    | 227.10 | ug/mL  | 100       |
| 6) Phenol                       | 8.47  | 94   | 145178   | 145.51 | ug/mL  | 100       |
| 7) bis(2-Chloroethyl) ether     | 12.44 | 93   | 168732   | 156.34 | ug/mL  | 98        |
| 8) 2-Chlorophenol               | 8.47  | 128  | 104043   | 127.43 | ug/mL# | 87        |
| 9) 1,3-Dichlorobenzene          | 8.86  | 146  | 113739   | 123.10 | ug/mL  | 98        |
| 10) 1,4-Dichlorobenzene         | 9.11  | 146  | 118937   | 127.12 | ug/mL  | 99        |
| 11) 1,2-Dichlorobenzene         | 9.49  | 146  | 112702   | 119.30 | ug/mL  | 98        |
| 12) 2-Methylphenol              | 10.17 | 108  | 102718   | 128.54 | ug/mLm | 63        |
| 13) bis(2-chloroisopropyl) ethe | 10.11 | 45   | 150752   | 87.04  | ug/mL# | 79        |
| 14) 4-Methylphenol              | 10.67 | 108  | 116050   | 134.26 | ug/mL  | 97        |
| 15) N-Nitroso-Di-n-propylamine  | 10.53 | 70   | 117037   | 134.82 | ug/mL  | 99        |
| 16) Hexachloroethane            | 10.44 | 117  | 61265    | 109.28 | ug/mL# | 81        |
| 19) Nitrobenzene                | 10.78 | 77   | 137726   | 130.44 | ug/mL# | 79        |
| 20) Isophorone                  | 11.63 | 82   | 286449   | 152.63 | ug/mL  | 100       |
| 21) 2-Nitrophenol               | 11.73 | 139  | 75814    | 126.50 | ug/mL  | 95        |
| 22) 2,4-Dimethylphenol          | 10.67 | 107  | 144674   | 137.24 | ug/mL# | 32        |
| 23) bis(2-Chloroethoxy) methane | 8.18  | 93   | 151120   | 118.47 | ug/mL# | 42        |
| 24) 2,4-Dichlorophenol          | 12.52 | 162  | 100762   | 115.96 | ug/mL  | 99        |
| 25) 1,2,4-Trichlorobenzene      | 12.67 | 180  | 107106   | 107.19 | ug/mL  | 98        |
| 26) Naphthalene                 | 12.83 | 128  | 319371   | 111.79 | ug/mL# | 91        |
| 27) 4-Chloroaniline             | 13.17 | 127  | 156643   | 118.02 | ug/mL  | 98        |
| 28) Hexachlorobutadiene         | 13.35 | 225  | 62689    | 97.58  | ug/mL  | 98        |
| 29) 4-Chloro-3-methylphenol     | 14.89 | 107  | 133371   | 120.81 | ug/mL# | 86        |
| 30) 2-Chloronaphthalene         | 16.39 | 162  | 229152   | 100.19 | ug/mL  | 100       |
| 31) 2-Methylnaphthalene         | 14.96 | 142  | 331843   | 159.13 | ug/mL  | 97        |
| 33) Hexachlorocyclopentadiene   | 15.46 | 237  | 67420    | 100.13 | ug/mL  | 97        |
| 34) 2,4,6-Trichlorophenol       | 15.93 | 196  | 100492   | 136.82 | ug/mL  | 99        |
| 35) 2,4,5-Trichlorophenol       | 16.00 | 196  | 70403    | 91.40  | ug/mL  | 99        |

(#)= qualifier out of range (m) = manual integration

b7754.d BNACLP.M

Wed May 31 10:10:10 1995

BNA

Page 1

## Quantitation Report

141

Data File : c:\hpchem\1\data2\b7754.d

Vial: 5

Acq On : 30 May 95 12:20 pm

Operator: SCOTTV

Sample : 120 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.87 | 65   | 125966   | 148.33 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.66 | 163  | 299887   | 137.71 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.61 | 152  | 381978   | 102.55 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.74 | 165  | 69446    | 135.67 | ug/mLm | 93     |
| 41) 3-Nitroaniline             | 18.16 | 138  | 82189    | 108.18 | ug/mL  | 95     |
| 42) Acenaphthene               | 18.16 | 153  | 234884   | 102.07 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.49 | 184  | 47322    | 185.83 | ug/mL  | 87     |
| 44) 4-Nitrophenol              | 18.96 | 109  | 39654    | 160.09 | ug/mL  | 90     |
| 45) Dibenzofuran               | 18.72 | 168  | 378169   | 115.99 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.75 | 165  | 276442   | 115.72 | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 341020   | 127.75 | ug/mL  | 99     |
| 48) Fluorene                   | 19.75 | 166  | 296520   | 118.24 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 135159   | 110.86 | ug/mL  | 94     |
| 51) 4-Nitroaniline             | 20.06 | 138  | 60415    | 115.52 | ug/mL  | 95     |
| 52) 4,6-Dinitro-2-methylphenol | 20.13 | 198  | 56816    | 152.23 | ug/mLm | 100    |
| 53) n-Nitrosodiphenylamine     | 20.35 | 169  | 209653   | 157.68 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.40 | 77   | 500723   | 146.47 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.39 | 248  | 79413    | 111.75 | ug/mL  | 95     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 92449    | 111.89 | ug/mL# | 68     |
| 58) Pentachlorophenol          | 22.06 | 266  | 59890    | 123.01 | ug/mL  | 99     |
| 59) Phenanthrene               | 22.62 | 178  | 457295   | 123.90 | ug/mL  | 99     |
| 60) Anthracene                 | 22.78 | 178  | 408657   | 112.58 | ug/mLm | 99     |
| 61) Carbazole                  | 23.41 | 167  | 420878   | 125.96 | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 658579   | 103.35 | ug/mL  | 100    |
| 63) Fluoranthene               | 26.21 | 202  | 379190   | 92.76  | ug/mLm | 91     |
| 65) Benzidine                  | 26.87 | 184  | 131098   | 148.83 | ug/mlm | 100    |
| 66) Pyrene                     | 26.85 | 202  | 445627   | 107.70 | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.43 | 149  | 293901   | 118.82 | ug/mL  | 93     |
| 69) Benzo[a]anthracene         | 30.57 | 228  | 469239   | 147.71 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.73 | 252  | 106370   | 122.47 | ug/mL# | 97     |
| 71) Chrysene                   | 30.67 | 228  | 211972   | 76.11  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.40 | 149  | 408257   | 110.77 | ug/mL  | 98     |
| 74) Di-n-octylphthalate        | 33.31 | 149  | 505170   | 92.14  | ug/mL  | 100    |
| 75) Benzo[b]fluoranthene       | 33.64 | 252  | 204971   | 151.87 | ug/mLm | 97     |
| 76) Benzo[k]fluoranthene       | 33.72 | 252  | 88924    | 68.83  | ug/mLm | 96     |
| 77) Benzo[a]pyrene             | 34.45 | 252  | 87415    | 94.92  | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.18 | 276  | 48224    | 124.60 | ug/mL# | 81     |
| 79) Dibenz[a,h]anthracene      | 37.31 | 278  | 47851    | 140.44 | ug/mL  | 98     |
| 80) Benzo[g,h,i]perylene       | 37.76 | 276  | 34423    | 102.21 | ug/mLm | 95     |

-----  
(#) = qualifier out of range (m) = manual integration

b7754.d BNACLP.M

Wed May 31 10:10:17 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7754.d

Acq On : 30 May 95 12:20 pm

Sample : 120 STD.....

Misc :

Quant Time: May 31 9:49 1995

Vial: 5

Operator: SCOTTV

Inst : ABNA

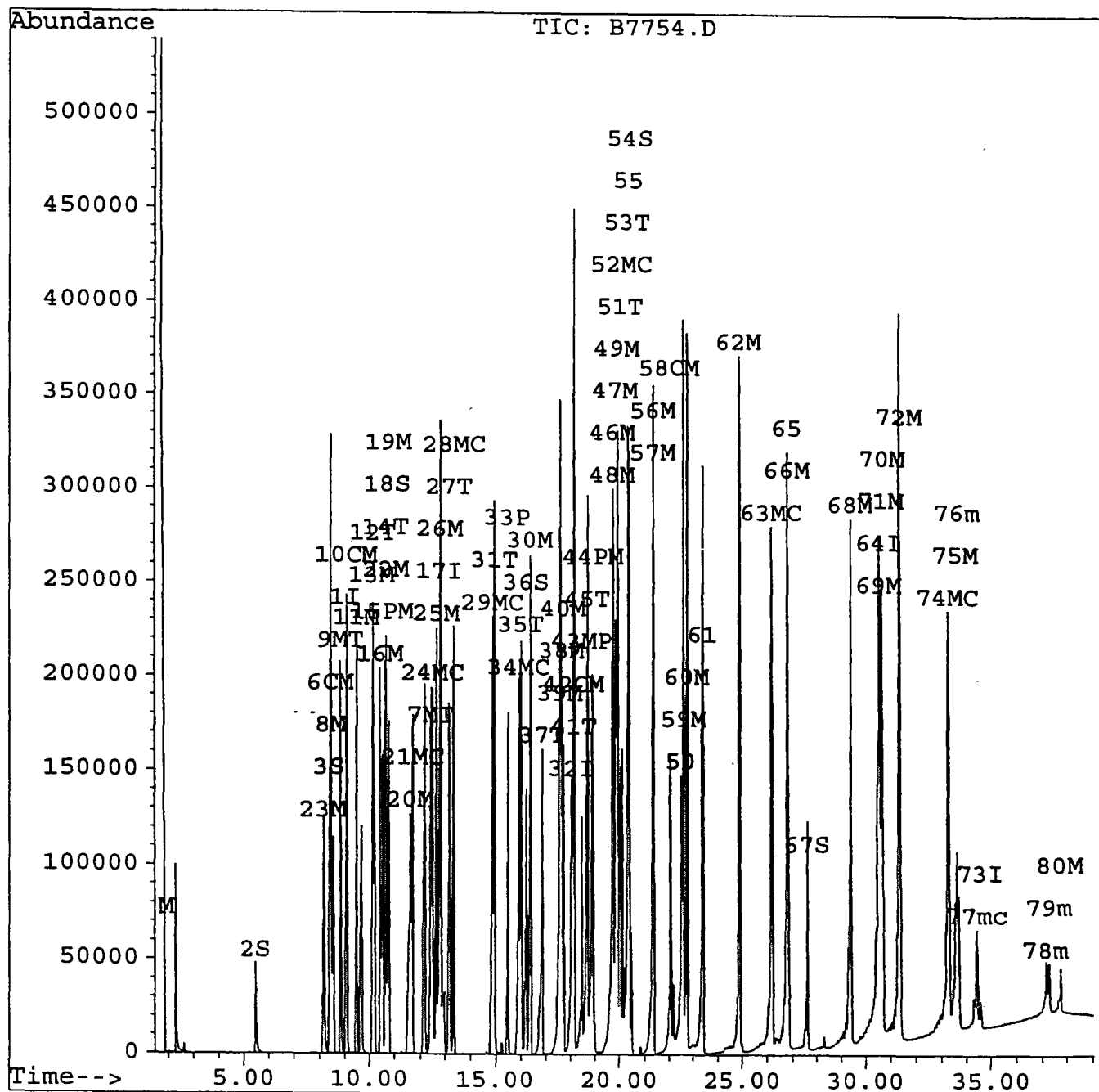
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



## Quantitation Report

143

Data File : c:\hpchem\1\data2\b7755.d

Vial: 6

Acq On : 30 May 95 1:12 pm

Operator: SCOTTV

Sample : 160 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 29361    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.77 | 136  | 123075   | 40.00 | ug/mL | -0.26    |
| 32) Acenaphthene-d10      | 18.07 | 164  | 86872    | 40.00 | ug/mL | -0.31    |
| 50) Phenanthrene-d10      | 22.53 | 188  | 155037   | 40.00 | ug/mL | -0.36    |
| 64) Chrysene-d12          | 30.60 | 240  | 82528    | 40.00 | ug/mL | -0.43    |
| 73) Perylene-d12          | 34.62 | 264  | 32039    | 40.00 | ug/mL | -0.43    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 38395  | 47.04 | ug/mL | 47.04%    |
| 3) Phenol-d5                | 8.43  | 99  | 66343  | 58.62 | ug/mL | 58.62%    |
| 18) Nitrobenzene-d5         | 10.73 | 82  | 67218  | 52.50 | ug/mL | 52.50%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172 | 126324 | 44.63 | ug/mL | 44.63%    |
| 54) 2,4,6-Tribromophenol    | 20.49 | 330 | 18970  | 44.21 | ug/mL | 44.21%    |
| 67) Terphenyl-d14           | 27.64 | 244 | 139748 | 65.52 | ug/mL | 65.52%    |

| Target Compounds               |       |     |        |        |        | Qvalue |
|--------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine      | 1.64  | 74  | 70397  | 332.28 | ug/mL  | 100    |
| 6) Phenol                      | 8.47  | 94  | 169408 | 156.21 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl)ether     | 12.46 | 93  | 222301 | 189.49 | ug/mL  | 91     |
| 8) 2-Chlorophenol              | 8.47  | 128 | 133653 | 150.59 | ug/mL# | 88     |
| 9) 1,3-Dichlorobenzene         | 8.86  | 146 | 152142 | 151.49 | ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene        | 9.11  | 146 | 154778 | 152.19 | ug/mL  | 98     |
| 11) 1,2-Dichlorobenzene        | 9.49  | 146 | 147372 | 143.51 | ug/mL  | 99     |
| 12) 2-Methylphenol             | 10.17 | 108 | 130214 | 149.90 | ug/mLm | 63     |
| 13) bis(2-chloroisopropyl)ethe | 10.13 | 45  | 221469 | 117.64 | ug/mL  | 93     |
| 14) 4-Methylphenol             | 10.67 | 108 | 142777 | 151.95 | ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine | 10.55 | 70  | 151444 | 160.49 | ug/mL  | 97     |
| 16) Hexachloroethane           | 10.44 | 117 | 81125  | 133.13 | ug/mL# | 82     |
| 19) Nitrobenzene               | 10.80 | 77  | 196043 | 169.49 | ug/mL# | 87     |
| 20) Isophorone                 | 11.65 | 82  | 382084 | 185.84 | ug/mL  | 99     |
| 21) 2-Nitrophenol              | 11.73 | 139 | 92995  | 141.64 | ug/mL  | 89     |
| 22) 2,4-Dimethylphenol         | 10.67 | 107 | 178112 | 154.23 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy)methane | 8.20  | 93  | 217251 | 155.46 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol         | 12.52 | 162 | 133269 | 140.00 | ug/mL  | 99     |
| 25) 1,2,4-Trichlorobenzene     | 12.67 | 180 | 144061 | 131.61 | ug/mL  | 99     |
| 26) Naphthalene                | 12.83 | 128 | 453739 | 144.98 | ug/mL# | 91     |
| 27) 4-Chloroaniline            | 13.19 | 127 | 223903 | 153.98 | ug/mL  | 98     |
| 28) Hexachlorobutadiene        | 13.35 | 225 | 86033  | 122.24 | ug/mL  | 97     |
| 29) 4-Chloro-3-methylphenol    | 14.89 | 107 | 174950 | 144.66 | ug/mL# | 75     |
| 30) 2-Chloronaphthalene        | 16.39 | 162 | 331044 | 132.12 | ug/mL  | 99     |
| 31) 2-Methylnaphthalene        | 14.97 | 142 | 438189 | 191.81 | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene  | 15.49 | 237 | 102334 | 129.71 | ug/mL  | 99     |
| 34) 2,4,6-Trichlorophenol      | 15.95 | 196 | 163412 | 189.89 | ug/mL  | 97     |
| 35) 2,4,5-Trichlorophenol      | 16.03 | 196 | 76742  | 85.03  | ug/mL  | 98     |

(#)=qualifier out of range (m)=manual integration

b7755.d BNACLP.M

Wed May 31 10:10:57 1995

BNA

Page 1

## Quantitation Report

144

Data File : c:\hpchem\1\data2\b7755.d

Vial: 6

Acq On : 30 May 95 1:12 pm

Operator: SCOTTV

Sample : 160 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.89 | 65   | 183241   | 184.15 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.67 | 163  | 428564   | 167.96 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.61 | 152  | 558058   | 127.87 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.76 | 165  | 102561   | 171.00 | ug/mLm | 92     |
| 41) 3-Nitroaniline             | 18.17 | 138  | 96949    | 108.91 | ug/mL  | 100    |
| 42) Acenaphthene               | 18.17 | 153  | 341152   | 126.53 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.50 | 184  | 65640    | 219.99 | ug/mL  | 88     |
| 44) 4-Nitrophenol              | 18.96 | 109  | 52458    | 180.75 | ug/mL  | 93     |
| 45) Dibenzofuran               | 18.73 | 168  | 512481   | 134.15 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.77 | 165  | 393324   | 140.52 | ug/mL# | 35     |
| 47) Diethylphthalate           | 19.89 | 149  | 442732   | 141.55 | ug/mL  | 97     |
| 48) Fluorene                   | 19.77 | 166  | 424603   | 144.50 | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 192605   | 134.83 | ug/mL  | 98     |
| 51) 4-Nitroaniline             | 20.08 | 138  | 81046    | 133.39 | ug/mL  | 90     |
| 52) 4,6-Dinitro-2-methylphenol | 20.16 | 198  | 87159    | 201.02 | ug/mLm | 100    |
| 53) n-Nitrosodiphenylamine     | 20.37 | 169  | 283832   | 183.75 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.41 | 77   | 660607   | 166.34 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.39 | 248  | 115508   | 139.91 | ug/mLm | 91     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 85494    | 89.06  | ug/mLm | 53     |
| 58) Pentachlorophenol          | 22.09 | 266  | 81327    | 143.79 | ug/mL  | 100    |
| 59) Phenanthrene               | 22.63 | 178  | 609750   | 142.21 | ug/mL  | 99     |
| 60) Anthracene                 | 22.78 | 178  | 501796   | 118.99 | ug/mLm | 99     |
| 61) Carbazole                  | 23.40 | 167  | 406913   | 104.82 | ug/ml  | 98     |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 893793   | 120.74 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.22 | 202  | 572007   | 120.45 | ug/mLm | 92     |
| 65) Benzidine                  | 26.87 | 184  | 187882   | 264.32 | ug/ml  | 100    |
| 66) Pyrene                     | 26.85 | 202  | 612856   | 183.54 | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.44 | 149  | 373168   | 186.95 | ug/mL  | 91     |
| 69) Benzo[a]anthracene         | 30.58 | 228  | 598348   | 233.40 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 113910   | 162.52 | ug/mL  | 99     |
| 71) Chrysene                   | 30.68 | 228  | 218157   | 97.07  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.41 | 149  | 506955   | 170.44 | ug/mL  | 96     |
| 74) Di-n-octylphthalate        | 33.32 | 149  | 549407   | 96.47  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.65 | 252  | 313299   | 223.47 | ug/mLm | 96     |
| 76) Benzo[k]fluoranthene       | 33.65 | 252  | 159963   | 119.19 | ug/mLm | 96     |
| 77) Benzo[a]pyrene             | 34.46 | 252  | 142747   | 149.22 | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.20 | 276  | 63169    | 157.13 | ug/mL  | 98     |
| 79) Dibenz[a,h]anthracene      | 37.32 | 278  | 60387    | 170.62 | ug/mL  | 99     |
| 80) Benzo[g,h,i]perylene       | 37.76 | 276  | 49358    | 141.09 | ug/mLm | 94     |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d

Acq On : 30 May 95 1:12 pm

Sample : 160 STD.....

Misc :

Quant Time: May 31 9:52 1995

Vial: 6 **145**

Operator: SCOTTV

Inst : ABNA

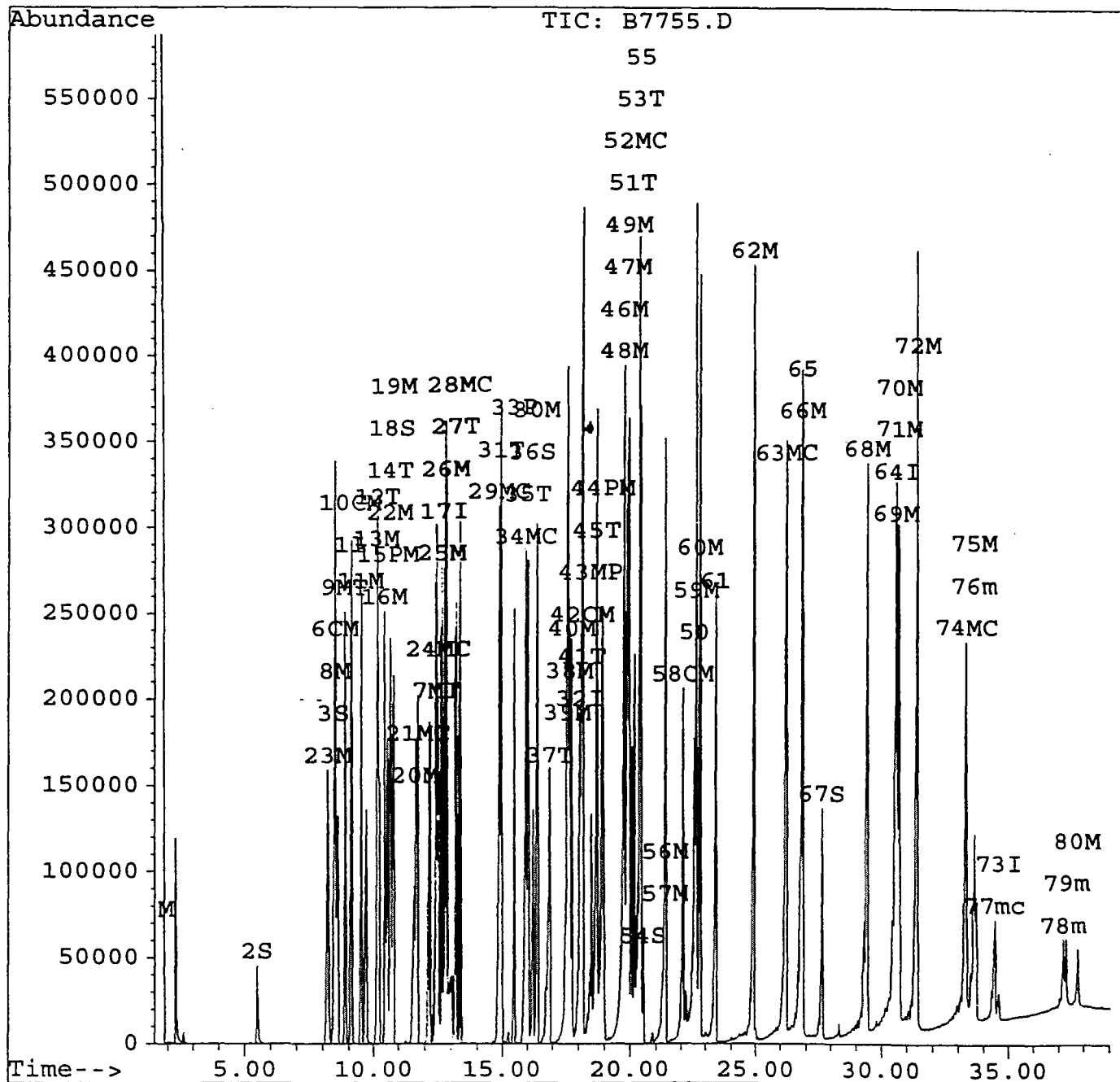
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

146

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: B7802.D DFTPP Injection Date: 6/3/95  
Instrument ID: ABNA DFTPP Injection Time: 0953

| m/e | ION ABUNDANCE CRITERIA              | %RELATIVE ABUNDANCE |
|-----|-------------------------------------|---------------------|
| 51  | 30.0 - 80.0% of mass 198            | 53.6                |
| 68  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 69  | Mass 69 relative abundance          | 60.9                |
| 70  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 127 | 25.0 - 75.0% of mass 198            | 47.3                |
| 197 | Less than 1.0% of mass 198          | 0.0                 |
| 198 | Base Peak, 100 % relative abundance | 100.0               |
| 199 | 5.0 - 9.0% of mass 198              | 7.2                 |
| 275 | 10.0 - 30.0% of mass 198            | 22.9                |
| 365 | Greater than 0.75% of mass 198      | 2.8                 |
| 441 | Present, but less than mass 443     | 11.1                |
| 442 | 40.0 - 110.0% of mass 198           | 70.8                |
| 443 | 15.0 - 24.0% of mass 442            | 14.0 ( 19.8 )2      |

1-Value is % mass 69

2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | SSTD050    | 50 STD        | B7803.D     | 6/3/95        | 1013          |
| 02 | SBLK01     | BLANK1        | B7804.D     | 6/3/95        | 1104          |
| 03 | 9521072B   | 9521072B      | B7805.D     | 6/3/95        | 1154          |
| 04 | 9521073B   | 9521073B      | B7806.D     | 6/3/95        | 1244          |
| 05 | SBLK02     | BLANK2        | B7807.D     | 6/3/95        | 1334          |
| 06 | 9522265B   | 9522265B      | B7808.D     | 6/3/95        | 1424          |
| 07 | 9522845B   | 9522845B      | B7809.D     | 6/3/95        | 1515          |
| 08 | SBLK03     | BLANK3        | B7810.D     | 6/3/95        | 1606          |
| 09 | 9523339B   | 9523339B      | B7811.D     | 6/3/95        | 1656          |
| 10 | 9523341B   | 9523341B      | B7812.D     | 6/3/95        | 1747          |
| 11 | 9523342B   | 9523342B      | B7813.D     | 6/3/95        | 1838          |
| 12 | 9523343B   | 9523343B      | B7814.D     | 6/3/95        | 1928          |
| 13 | 9523530B   | 9523530B      | B7815.D     | 6/3/95        | 2018          |
| 14 | 9523531B   | 9523531B      | B7816.D     | 6/3/95        | 2108          |
| 15 | 9523533B   | 9523533B      | B7817.D     | 6/3/95        | 2158          |
| 16 | 9523534B   | 9523534B      | B7818.D     | 6/3/95        | 2248          |
| 17 | 9523535B   | 9523535B      | B7819.D     | 6/3/95        | 2337          |
| 18 | 9523536B   | 9523536B      | B7820.D     | 6/4/95        | 0027          |
| 19 | SBLK04     | BLANK4        | B7821.D     | 6/4/95        | 0117          |
| 20 | 9523789B   | 9523789B      | B7822.D     | 6/4/95        | 0206          |
| 21 | 9523792B   | 9523792B      | B7823.D     | 6/4/95        | 0256          |
| 22 | 9523787B   | 9523787B      | B7824.D     | 6/4/95        | 0346          |



5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

147

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: B7802.D DFTPP Injection Date: 6/3/95  
Instrument ID: ABNA DFTPP Injection Time: 0953

| m/e | ION ABUNDANCE CRITERIA              | %RELATIVE ABUNDANCE |
|-----|-------------------------------------|---------------------|
| 51  | 30.0 - 80.0% of mass 198            | 53.6                |
| 68  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 69  | Mass 69 relative abundance          | 60.9                |
| 70  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 127 | 25.0 - 75.0% of mass 198            | 47.3                |
| 197 | Less than 1.0% of mass 198          | 0.0                 |
| 198 | Base Peak, 100 % relative abundance | 100.0               |
| 199 | 5.0 - 9.0% of mass 198              | 7.2                 |
| 275 | 10.0 - 30.0% of mass 198            | 22.9                |
| 365 | Greater than 0.75% of mass 198      | 2.8                 |
| 441 | Present, but less than mass 443     | 11.1                |
| 442 | 40.0 - 110.0% of mass 198           | 70.8                |
| 443 | 15.0 - 24.0% of mass 442            | 14.0 ( 19.8 )2      |

1-Value is % mass 69

2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | SBLK05     | BLANK5        | B7825.D     | 6/4/95        | 0435          |
| 02 | 22654MS    | 22654MS       | B7826.D     | 6/4/95        | 0525          |
| 03 | 22654MSD   | 22654MSD      | B7827.D     | 6/4/95        | 0615          |
| 04 | 22659MS    | 22659MS       | B7828.D     | 6/4/95        | 0704          |
| 05 | 22659MSD   | 22659MSD      | B7829.D     | 6/4/95        | 0754          |
| 06 |            |               |             |               |               |
| 07 |            |               |             |               |               |
| 08 |            |               |             |               |               |
| 09 |            |               |             |               |               |
| 10 |            |               |             |               |               |
| 11 |            |               |             |               |               |
| 12 |            |               |             |               |               |
| 13 |            |               |             |               |               |
| 14 |            |               |             |               |               |
| 15 |            |               |             |               |               |
| 16 |            |               |             |               |               |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |

Data File : C:\HPCHEM\1\DATA2\B7802.D

Vial: 1

Acq On : 3 Jun 95 9:53 am

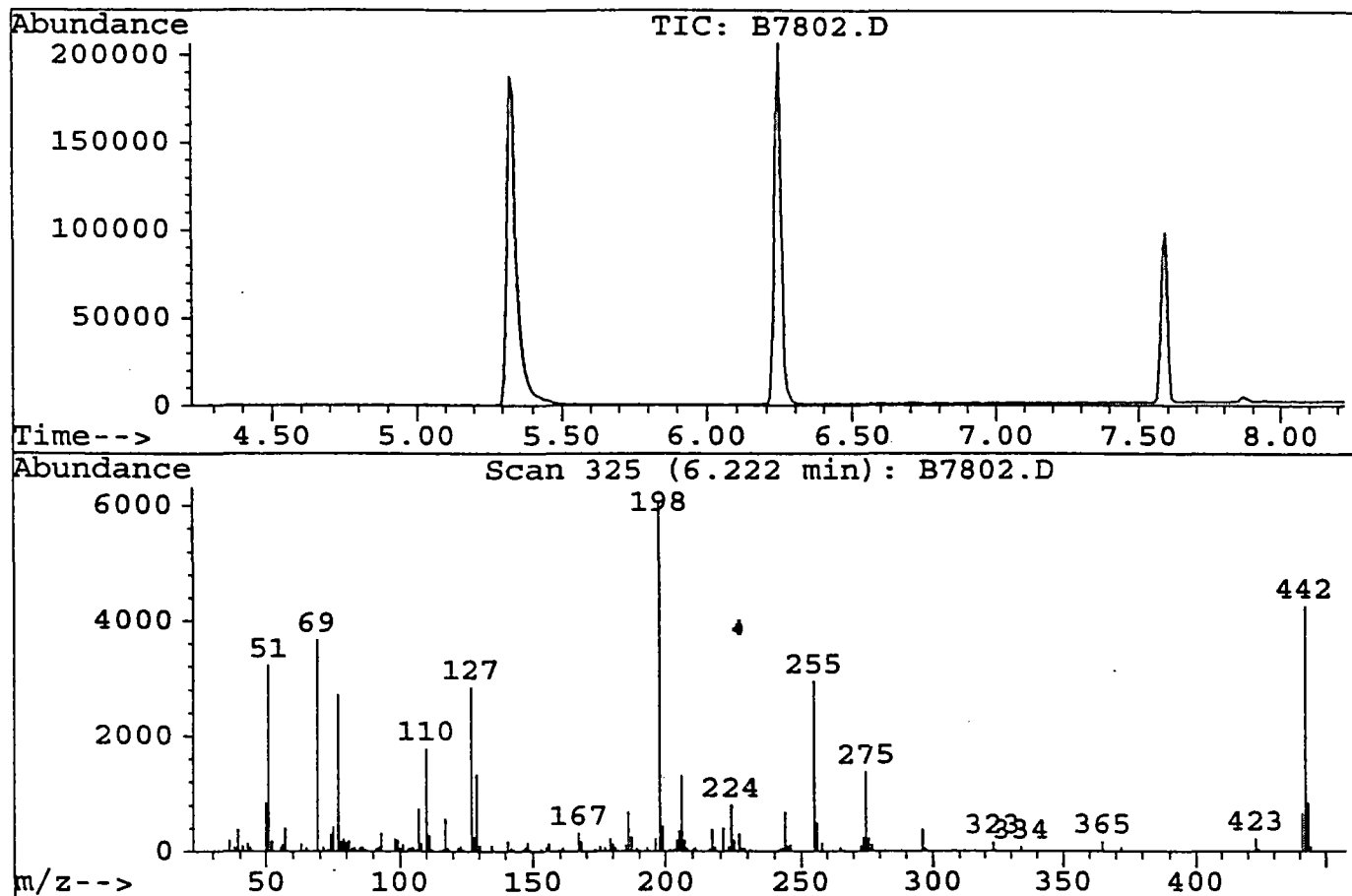
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 325

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 53.6      | 3226    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 60.9      | 3667    | PASS             |
| 70          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 47.3      | 2846    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 6021    | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 434     | PASS             |
| 275         | 198          | 10           | 30           | 22.9      | 1379    | PASS             |
| 365         | 198          | 1            | 100          | 2.8       | 170     | PASS             |
| 441         | 443          | 0            | 100          | 79.3      | 669     | PASS             |
| 442         | 198          | 40           | 100          | 70.8      | 4261    | PASS             |
| 443         | 442          | 17           | 23           | 19.8      | 844     | PASS             |

Scan 325 (6.222 min): B7802.D

TPP..... Converted from RTE data file >B7802::D5

149

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.10 | 195    | 57.05 | 413    | 79.95 | 160    | 99.05  | 186    |
| 37.90 | 74     | 63.05 | 134    | 81.05 | 193    | 100.05 | 51     |
| 39.10 | 386    | 65.05 | 66     | 81.95 | 54     | 100.95 | 118    |
| 41.05 | 94     | 68.95 | 3667   | 82.95 | 76     | 102.95 | 50     |
| 43.05 | 140    | 71.15 | 74     | 85.05 | 67     | 103.95 | 70     |
| 43.95 | 71     | 73.05 | 38     | 85.95 | 78     | 105.05 | 69     |
| 50.05 | 844    | 74.05 | 294    | 87.05 | 29     | 106.15 | 34     |
| 51.05 | 3226   | 74.95 | 427    | 90.95 | 51     | 107.05 | 746    |
| 52.05 | 179    | 77.05 | 2720   | 92.05 | 75     | 107.95 | 136    |
| 55.15 | 74     | 78.05 | 169    | 92.95 | 316    | 109.95 | 1785   |
| 55.95 | 133    | 79.05 | 215    | 98.05 | 224    | 111.05 | 275    |

Scan 325 (6.222 min): B7802.D

TPP..... Converted from RTE data file >B7802::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 111.85 | 36     | 134.90 | 114    | 160.00 | 39     | 186.00 | 683    |
| 116.05 | 42     | 140.90 | 173    | 161.00 | 63     | 187.00 | 242    |
| 117.05 | 564    | 142.10 | 53     | 167.00 | 318    | 188.90 | 51     |
| 118.05 | 51     | 142.90 | 34     | 168.00 | 162    | 193.00 | 70     |
| 121.90 | 66     | 145.90 | 30     | 173.00 | 42     | 196.10 | 225    |
| 123.00 | 89     | 147.00 | 83     | 175.00 | 88     | 198.00 | 6021   |
| 123.90 | 35     | 147.90 | 160    | 177.00 | 64     | 199.00 | 434    |
| 127.00 | 2846   | 149.00 | 36     | 179.00 | 216    | 201.65 | 29     |
| 128.10 | 250    | 152.90 | 50     | 180.00 | 127    | 202.95 | 41     |
| 128.90 | 1336   | 155.00 | 69     | 180.90 | 71     | 203.95 | 197    |
| 130.10 | 102    | 156.00 | 130    | 185.00 | 110    | 205.05 | 353    |

Scan 325 (6.222 min): B7802.D

TPP..... Converted from RTE data file >B7802::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 206.05 | 1320   | 224.95 | 192    | 255.95 | 487    | 334.00 | 73     |
| 207.05 | 189    | 226.95 | 305    | 258.05 | 143    | 364.95 | 170    |
| 207.95 | 55     | 227.95 | 55     | 264.95 | 68     | 372.05 | 67     |
| 210.15 | 33     | 228.85 | 61     | 272.95 | 102    | 423.05 | 224    |
| 211.05 | 66     | 231.05 | 37     | 274.05 | 239    | 423.95 | 49     |
| 216.15 | 46     | 242.05 | 44     | 275.05 | 1379   | 441.00 | 669    |
| 216.95 | 373    | 243.05 | 52     | 276.05 | 219    | 442.00 | 4261   |
| 217.95 | 69     | 244.05 | 676    | 277.05 | 109    | 443.00 | 844    |
| 220.95 | 411    | 245.05 | 91     | 296.00 | 378    | 444.00 | 72     |
| 222.95 | 81     | 245.95 | 117    | 297.00 | 45     |        |        |
| 224.05 | 802    | 255.05 | 2950   | 323.10 | 156    |        |        |

# Quantitation Report

150

Data File : C:\HPCHEM\1\DATA2\B7802.D

Vial: 1

Acq On : 3 Jun 95 9:53 am

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

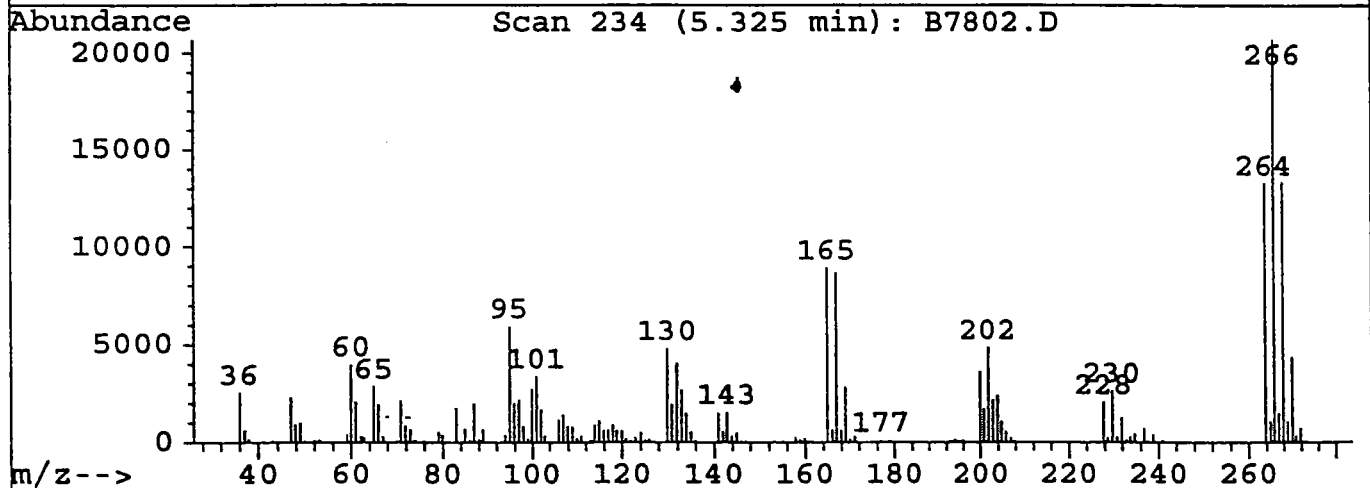
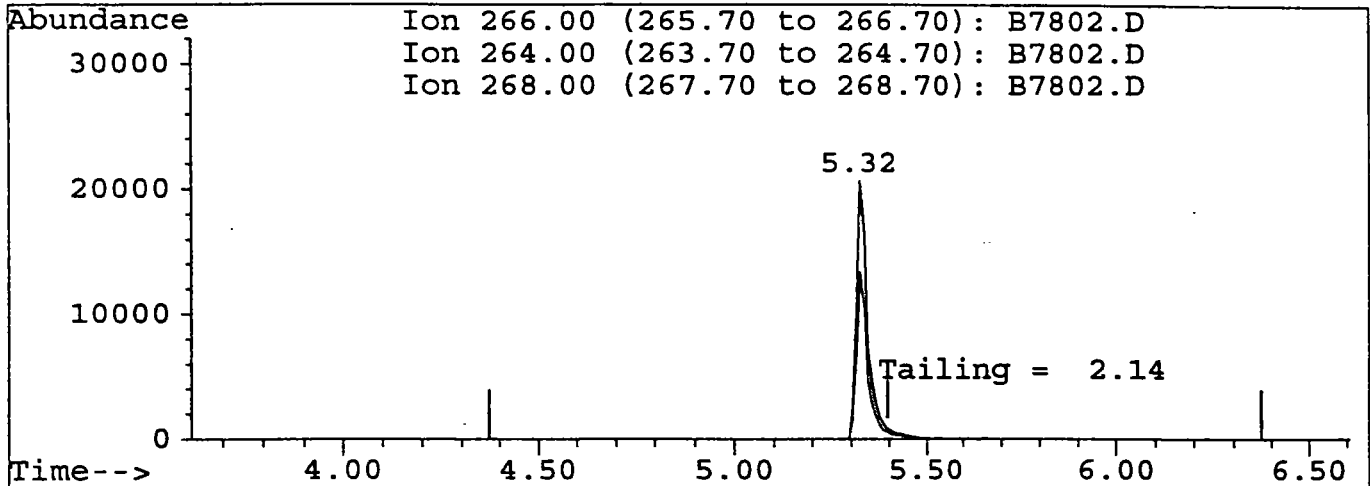
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



TIC: B7802.D

(1) Pentachlorophenol (CM)

5.32min 133.02ug/mL

response 43936

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 64.30 |
| 268.00 | 64.70 | 64.53 |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B7802.D

Vial: 1 **151**

Acq On : 3 Jun 95 9:53 am

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

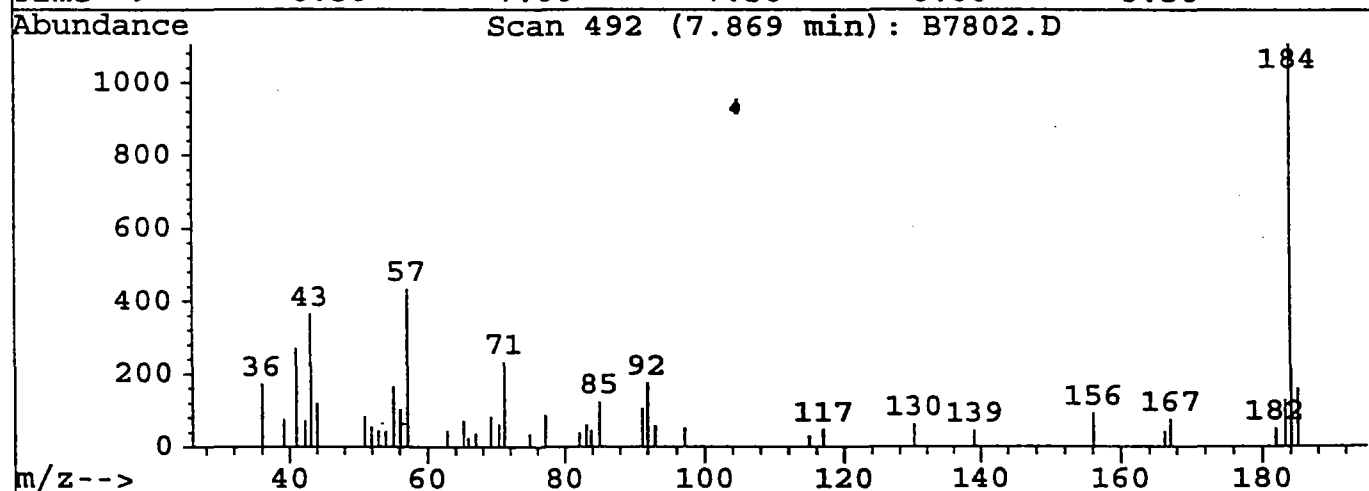
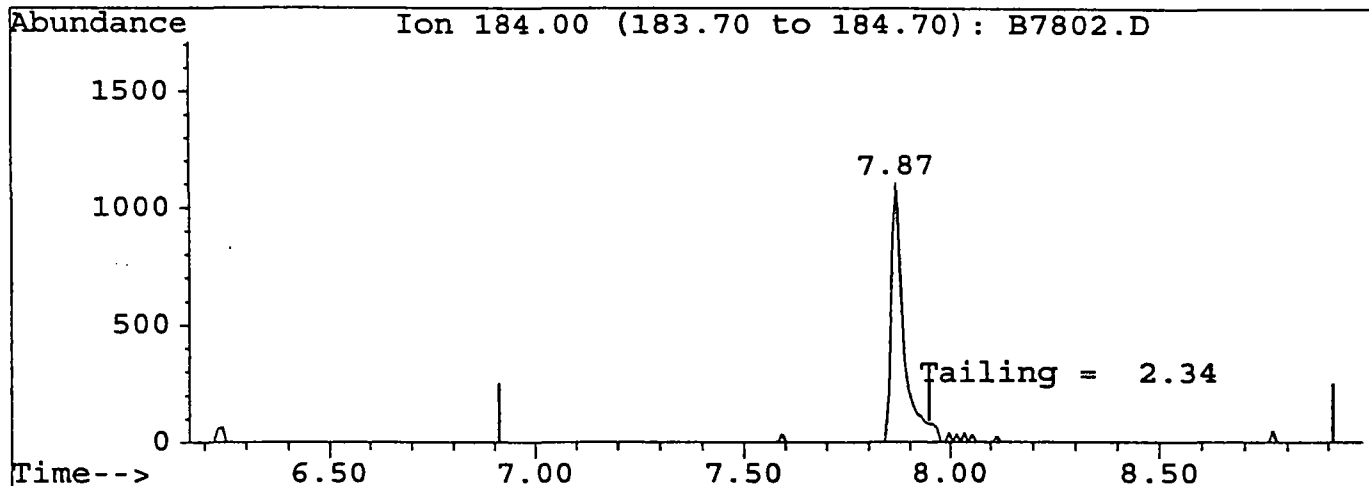
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



TIC: B7802.D

(2) Benzidine

7.87min 7.97ug/ml

response 2449

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |

7B  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

152

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: ABNA Calibration Date: 6/3/95 Time: 1013

Lab File ID: B7803.D Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

| COMPOUND                    | RRF   | RRF50 | MIN<br>RRF | %D    | MAX<br>%D |
|-----------------------------|-------|-------|------------|-------|-----------|
| bis(2-Chloroethyl)ether     | 2.026 | 2.027 |            | 0.0   |           |
| 1,3-Dichlorobenzene         | 1.385 | 1.449 |            | -4.6  |           |
| 1,4-Dichlorobenzene         | 1.429 | 1.500 |            | -5.0  | 30.0      |
| 1,2-Dichlorobenzene         | 1.357 | 1.424 |            | -4.9  |           |
| bis(2-chloroisopropyl)ether | 1.868 | 1.769 |            | 5.3   |           |
| N-Nitroso-Di-n-propylamine  | 1.346 | 1.315 | 0.050      | 2.3   |           |
| Hexachloroethane            | 0.737 | 0.736 |            | 0.1   |           |
| Nitrobenzene                | 0.424 | 0.446 |            | -5.2  |           |
| Isophorone                  | 0.893 | 0.814 |            | 8.8   |           |
| bis(2-Chloroethoxy)methane  | 0.456 | 0.453 |            | 0.7   |           |
| 1,2,4-Trichlorobenzene      | 0.317 | 0.332 |            | -4.7  |           |
| Naphthalene                 | 0.979 | 1.023 |            | -4.5  |           |
| 4-Chloroaniline             | 0.463 | 0.464 |            | -0.2  |           |
| Hexachlorobutadiene         | 0.185 | 0.191 |            | -3.2  | 30.0      |
| 2-Methylnaphthalene         | 0.786 | 0.742 |            | 5.6   |           |
| Hexachlorocyclopentadiene   | 0.278 | 0.250 | 0.050      | 10.1  |           |
| 2-Chloronaphthalene         | 0.696 | 0.716 |            | -2.9  |           |
| 2-Nitroaniline              | 0.549 | 0.487 |            | 11.3  |           |
| Dimethylphthalate           | 1.299 | 1.277 |            | 1.7   |           |
| Acenaphthylene              | 1.704 | 1.652 |            | 3.1   |           |
| 2,6-Dinitrotoluene          | 0.310 | 0.301 |            | 2.9   |           |
| 3-Nitroaniline              | 0.346 | 0.344 |            | 0.6   |           |
| Acenaphthene                | 1.025 | 1.040 |            | -1.5  | 30.0      |
| Dibenzofuran                | 1.609 | 1.625 |            | -1.0  |           |
| 2,4-Dinitrotoluene          | 1.167 | 1.125 |            | 3.6   |           |
| Diethylphthalate            | 1.443 | 1.376 |            | 4.6   |           |
| Fluorene                    | 1.259 | 1.219 |            | 3.2   |           |
| 4-Chlorophenyl-phenylether  | 0.596 | 0.628 |            | -5.4  |           |
| 4-Nitroaniline              | 0.166 | 0.194 |            | -16.9 |           |
| n-Nitrosodiphenylamine      | 0.508 | 0.502 |            | 1.2   |           |
| 4-Bromophenyl-phenylether   | 0.206 | 0.219 |            | -6.3  |           |
| Hexachlorobenzene           | 0.215 | 0.232 |            | -7.9  |           |
| Phenanthrene                | 1.094 | 1.129 |            | -3.2  |           |
| Anthracene                  | 1.009 | 1.064 |            | -5.5  |           |
| Carbazole                   | 0.944 | 1.015 |            | -7.5  |           |
| Di-n-butylphthalate         | 1.606 | 1.633 |            | -1.7  |           |
| Fluoranthene                | 1.035 | 1.139 |            | -10.0 | 30.0      |

All other compounds must meet a minimum RRF of 0.010.

Lab Name: EMSL ANALYTICAL

**Contract:**

Project No.

Site:

**Location:**

**Group:**

Instrument ID: ABNA

Calibration Date: 6/3/95

Time: 1013

Lab File ID: B7803.D

Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

| COMPOUND                   | RRF   | RRF50 | MIN<br>RRF | %D   | MAX<br>%D |
|----------------------------|-------|-------|------------|------|-----------|
| Pyrene                     | 1.502 | 1.240 |            | 17.4 |           |
| Butylbenzylphthalate       | 0.962 | 0.769 |            | 20.1 |           |
| Benzo[a]anthracene         | 1.516 | 1.300 |            | 14.2 |           |
| 3,3'-Dichlorobenzidine     | 0.386 | 0.357 |            | 7.5  |           |
| Chrysene                   | 0.843 | 0.806 |            | 4.4  |           |
| bis(2-Ethylhexyl)phthalate | 1.364 | 1.148 |            | 15.8 |           |
| Di-n-octylphthalate        | 5.094 | 4.570 |            | 10.3 | 30.0      |
| Benzo[b]fluoranthene       | 2.467 | 2.153 |            | 12.7 |           |
| Benzo[k]fluoranthene       | 1.190 | 1.273 |            | -7.0 |           |
| Benzo[a]pyrene             | 1.227 | 1.266 |            | -3.2 | 30.0      |
| Indeno[1,2,3-cd]pyrene     | 0.452 | 0.458 |            | -1.3 |           |
| Dibenz[a,h]anthracene      | 0.436 | 0.384 |            | 11.9 |           |
| Benzo[g,h,i]perylene       | 0.356 | 0.291 |            | 18.3 |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
|                            |       |       |            |      |           |
| Nitrobenzene-d5            | 0.456 | 0.443 |            | 2.9  |           |
| 2-Fluorobiphenyl           | 1.200 | 1.187 |            | 1.1  |           |
| Terphenyl-d14              | 1.062 | 0.881 |            | 17.0 |           |

**All other compounds must meet a minimum RRF of 0.010.**

## Evaluate Continuing Calibration Report

154

Data File : C:\HPCHEM\1\DATA2\B7803.D

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTT V

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                     | AvgRF | CCRF   | %Dev   | Area% | Dev (Min) |
|-------|------------------------------|-------|--------|--------|-------|-----------|
| 1 I   | 1,4-Dichlorobenzene-d4       | 1.000 | 1.000  | 0.0    | 99    | 0.18      |
| 2 S   | 2-Fluorophenol               | 1.131 | 1.044  | 7.7    | 96    | 0.16      |
| 3 S   | Phenol-d5                    | 1.873 | 1.712  | 8.6    | 98    | 0.14      |
| 4 M   | N-nitrosodimethylamine       | 0.578 | 0.585  | -1.1   | 79    | -0.10     |
| 5     | Pyridine                     | 0.428 | 0.000# | 100.0# | 0#    | -1.62#    |
| 6 CM  | Phenol                       | 1.668 | 1.607  | 3.7    | 93    | 0.14      |
| 7 MT  | bis(2-Chloroethyl) ether     | 2.026 | 2.027  | -0.1   | 98    | 0.18      |
| 8 M   | 2-Chlorophenol               | 1.269 | 1.290  | -1.6   | 102   | 0.16      |
| 9 MT  | 1,3-Dichlorobenzene          | 1.385 | 1.449  | -4.6   | 101   | 0.18      |
| 10 CM | 1,4-Dichlorobenzene          | 1.429 | 1.500  | -5.0   | 101   | 0.18      |
| 11 M  | 1,2-Dichlorobenzene          | 1.357 | 1.424  | -4.9   | 102   | 0.18      |
| 12 T  | 2-Methylphenol               | 1.204 | 1.299  | -7.9   | 110   | 0.66#     |
| 13 M  | bis(2-chloroisopropyl) ether | 1.868 | 1.769  | 5.3    | 101   | 0.20      |
| 14 T  | 4-Methylphenol               | 1.322 | 1.299  | 1.7    | 98    | 0.16      |
| 15 PM | N-Nitroso-Di-n-propylamine   | 1.346 | 1.315  | 2.3    | 102   | 0.18      |
| 16 M  | Hexachloroethane             | 0.737 | 0.736  | 0.1    | 97    | 0.19      |
| 17 I  | Naphthalene-d8               | 1.000 | 1.000  | 0.0    | 94    | 0.18      |
| 18 S  | Nitrobenzene-d5              | 0.456 | 0.443  | 2.8    | 96    | 0.18      |
| 19 M  | Nitrobenzene                 | 0.424 | 0.446  | -5.2   | 96    | 0.18      |
| 20 M  | Isophorone                   | 0.893 | 0.814  | 8.8    | 94    | 0.16      |
| 21 MC | 2-Nitrophenol                | 0.210 | 0.202  | 4.2    | 95    | 0.20      |
| 22 M  | 2,4-Dimethylphenol           | 0.394 | 0.392  | 0.4    | 97    | 0.16      |
| 23 M  | bis(2-Chloroethoxy) methane  | 0.456 | 0.453  | 0.7    | 94    | 0.16      |
| 24 MC | 2,4-Dichlorophenol           | 0.298 | 0.301  | -0.8   | 97    | 0.18      |
| 25 M  | 1,2,4-Trichlorobenzene       | 0.317 | 0.332  | -4.7   | 97    | 0.18      |
| 26 M  | Naphthalene                  | 0.979 | 1.023  | -4.5   | 100   | 0.20      |
| 27 T  | 4-Chloroaniline              | 0.463 | 0.464  | -0.1   | 93    | 0.20      |
| 28 MC | Hexachlorobutadiene          | 0.185 | 0.191  | -3.3   | 97    | 0.18      |
| 29 MC | 4-Chloro-3-methylphenol      | 0.384 | 0.376  | 2.0    | 92    | 0.18      |
| 30 M  | 2-Chloronaphthalene          | 0.696 | 0.716  | -2.8   | 96    | 0.21      |
| 31 T  | 2-Methylnaphthalene          | 0.786 | 0.742  | 5.5    | 100   | 0.19      |
| 32 I  | Acenaphthene-d10             | 1.000 | 1.000  | 0.0    | 99    | 0.21      |
| 33 P  | Hexachlorocyclopentadiene    | 0.278 | 0.250  | 10.3   | 95    | 0.19      |
| 34 MC | 2,4,6-Trichlorophenol        | 0.415 | 0.353  | 15.0   | 91    | 0.20      |
| 35 T  | 2,4,5-Trichlorophenol        | 0.324 | 0.384  | -18.4  | 102   | 0.19      |
| 36 S  | 2-Fluorobiphenyl             | 1.200 | 1.187  | 1.1    | 99    | 0.19      |
| 37 T  | 2-Nitroaniline               | 0.549 | 0.487  | 11.3   | 83    | 0.19      |
| 38 M  | Dimethylphthalate            | 1.299 | 1.277  | 1.8    | 97    | 0.19      |
| 39 M  | Acenaphthylene               | 1.704 | 1.652  | 3.1    | 95    | 0.21      |
| 40 M  | 2,6-Dinitrotoluene           | 0.310 | 0.301  | 2.8    | 91    | 0.21      |

(# ) = Out of Range

B7803.D BNACLP.M

Wed Jun 07 09:32:50 1995

BNA

Page 1



Data File : C:\HPCHEM\1\DATA2\B7803.D

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACL.P.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(Min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 1 T   | 3-Nitroaniline              | 0.346 | 0.344 | 0.6   | 94    | 0.21     |
| 2 CM  | Acenaphthene                | 1.025 | 1.040 | -1.5  | 100   | 0.21     |
| 43 MP | 2,4-Dinitrophenol           | 0.172 | 0.164 | 4.8   | 104   | 0.21     |
| 44 PM | 4-Nitrophenol               | 0.166 | 0.160 | 3.5   | 94    | 0.19     |
| 5 T   | Dibenzofuran                | 1.609 | 1.625 | -1.0  | 96    | 0.21     |
| 46 M  | 2,4-Dinitrotoluene          | 1.167 | 1.125 | 3.6   | 97    | 0.23     |
| 47 M  | Diethylphthalate            | 1.443 | 1.376 | 4.6   | 93    | 0.21     |
| 8 M   | Fluorene                    | 1.259 | 1.219 | 3.2   | 98    | 0.23     |
| 9 M   | 4-Chlorophenyl-phenylether  | 0.596 | 0.628 | -5.4  | 105   | 0.23     |
| 10    | Phenanthrene-d10            | 1.000 | 1.000 | 0.0   | 102   | 0.25     |
| 1 T   | 4-Nitroaniline              | 0.166 | 0.194 | -16.9 | 93    | 0.21     |
| 52 MC | 4,6-Dinitro-2-methylphenol  | 0.132 | 0.139 | -5.1  | 109   | 0.21     |
| 53 T  | n-Nitrosodiphenylamine      | 0.508 | 0.502 | 1.2   | 96    | 0.23     |
| 4 S   | 2,4,6-Tribromophenol        | 0.108 | 0.110 | -2.0  | 106   | 0.23     |
| 55    | 1,2-Diphenylhydrazine (as a | 1.211 | 1.189 | 1.8   | 92    | 0.23     |
| 56 M  | 4-Bromophenyl-phenylether   | 0.206 | 0.219 | -6.2  | 101   | 0.23     |
| 7 M   | Hexachlorobenzene           | 0.215 | 0.232 | -8.2  | 104   | 0.23     |
| 8 CM  | Pentachlorophenol           | 0.137 | 0.160 | -16.2 | 122   | 0.23     |
| 59 M  | Phenanthrene                | 1.094 | 1.129 | -3.2  | 105   | 0.25     |
| 60 M  | Anthracene                  | 1.009 | 1.064 | -5.5  | 105   | 0.25     |
| 61    | Carbazole                   | 0.944 | 1.015 | -7.5  | 107   | 0.25     |
| 62 M  | Di-n-butylphthalate         | 1.606 | 1.633 | -1.6  | 102   | 0.23     |
| 63 MC | Fluoranthene                | 1.035 | 1.139 | -10.1 | 103   | 0.27     |
| 64 I  | Chrysene-d12                | 1.000 | 1.000 | 0.0   | 110   | 0.31     |
| 65    | Benzidine                   | 0.437 | 0.361 | 17.5  | 99    | 0.27     |
| 66 M  | Pyrene                      | 1.502 | 1.240 | 17.4  | 107   | 0.27     |
| 67 S  | Terphenyl-d14               | 1.062 | 0.881 | 17.1  | 110   | 0.27     |
| 68 M  | Butylbenzylphthalate        | 0.962 | 0.769 | 20.0  | 100   | 0.27     |
| 69 M  | Benzo[a]anthracene          | 1.516 | 1.300 | 14.2  | 106   | 0.31     |
| 70 M  | 3,3'-Dichlorobenzidine      | 0.386 | 0.357 | 7.5   | 111   | 0.29     |
| 71 M  | Chrysene                    | 0.843 | 0.806 | 4.4   | 115   | 0.31     |
| 72 M  | bis(2-Ethylhexyl)phthalate  | 1.364 | 1.148 | 15.8  | 101   | 0.27     |
| 73 I  | Perylene-d12                | 1.000 | 1.000 | 0.0   | 206#  | 0.30     |
| 74 MC | Di-n-octylphthalate         | 5.094 | 4.570 | 10.3  | 200#  | 0.27     |
| 75 M  | Benzo[b]fluoranthene        | 2.467 | 2.153 | 12.7  | 176#  | 0.30     |
| 76 m  | Benzo[k]fluoranthene        | 1.190 | 1.273 | -7.0  | 237#  | 0.31     |
| 77 mc | Benzo[a]pyrene              | 1.227 | 1.266 | -3.2  | 193#  | -0.51#   |
| 78 m  | Indeno[1,2,3-cd]pyrene      | 0.452 | 0.458 | -1.1  | 227#  | 0.26     |
| 79 m  | Dibenz[a,h]anthracene       | 0.436 | 0.384 | 11.8  | 217#  | 0.26     |

-(#) = Out of Range

B7803.D BNACL.P.M

Wed Jun 07 09:33:02 1995

BNA

Page 2

## Evaluate Continuing Calibration Report

156

Data File : C:\HPCHEM\1\DATA2\B7803.D

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound                       | AvgRF | CCRF   | %Dev | Area% | Dev(Min) |
|--------------------------------|-------|--------|------|-------|----------|
| 80 M Benzo[g,h,i]perylene      | 0.356 | 0.291  | 18.1 | 185#  | 0.26     |
| 81 1-Methyl naphthalene        | 0.000 | 0.000# | 0.0  | 0#    | -13.33#  |
| 82 7,12-Dimethylbenz(a)anthrac | 0.000 | 0.000# | 0.0  | 191#  | 0.30     |
| 83 Quinoline                   | 0.000 | 0.000# | 0.0  | 95    | 0.20     |
| 84 Thiophenol                  | 0.000 | 0.000# | 0.0  | 72    | 0.17     |
| 85 4-Methyl chrysene           | 0.000 | 0.000# | 0.0  | 118   | 0.31     |
| 86 Dibenz(a,j)acridine         | 0.000 | 0.000# | 0.0  | 131   | 0.27     |
| 87 Indene                      | 0.000 | 0.000# | 0.0  | 94    | 0.18     |

(#)= Out of Range

SPCC's out = 0 CCC's out = 0

B7803.D BNACLP.M

Wed Jun 07 09:33:04 1995

BNA

Page 3

## Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d

Vial: 2 157

Acq On : 3 Jun 95 10:13 am

Operator: SCOTT V

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.21  | 152  | 29236    | 40.00 | ug/mL | 0.18     |
| 17) Naphthalene-d8        | 12.92 | 136  | 116999   | 40.00 | ug/mL | 0.18     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 80656    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 134208   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.89 | 240  | 129676   | 40.00 | ug/mL | 0.31     |
| 73) Perylene-d12          | 34.90 | 264  | 93467    | 40.00 | ug/mL | 0.30     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.63  | 112 | 38146  | 46.13 | ug/mL | 46.13%    |
| 3) Phenol-d5                | 8.53  | 99  | 62550  | 45.70 | ug/mL | 45.70%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 64784  | 48.60 | ug/mL | 48.60%    |
| 36) 2-Fluorobiphenyl        | 16.39 | 172 | 119643 | 49.45 | ug/mL | 49.45%    |
| 54) 2,4,6-Tribromophenol    | 20.69 | 330 | 18489  | 51.01 | ug/mL | 51.01%    |
| 67) Terphenyl-d14           | 27.91 | 244 | 142742 | 41.47 | ug/mL | 41.47%    |

| Target Compounds                |       |     |        |       |        | Qvalue |
|---------------------------------|-------|-----|--------|-------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.85  | 74  | 21365  | 50.56 | ug/mLm | 100    |
| 6) Phenol                       | 8.57  | 94  | 58717  | 48.17 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.60 | 93  | 74087  | 50.04 | ug/mL  | 96     |
| 8) 2-Chlorophenol               | 8.61  | 128 | 47149  | 50.82 | ug/mL  | 95     |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146 | 52942  | 52.30 | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146 | 54825  | 52.49 | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146 | 52051  | 52.46 | ug/mL  | 98     |
| 12) 2-Methylphenol              | 10.79 | 108 | 47472  | 53.93 | ug/mL  | 65     |
| 13) bis(2-chloroisopropyl) ethe | 10.28 | 45  | 64632  | 47.33 | ug/mL# | 1      |
| 14) 4-Methylphenol              | 10.79 | 108 | 47472  | 49.15 | ug/mL  | 99     |
| 15) N-Nitroso-Di-n-propylamine  | 10.67 | 70  | 48058  | 48.86 | ug/mL  | 91     |
| 16) Hexachloroethane            | 10.61 | 117 | 26915  | 49.93 | ug/mL  | 99     |
| 19) Nitrobenzene                | 10.94 | 77  | 65242  | 52.61 | ug/mL# | 89     |
| 20) Isophorone                  | 11.73 | 82  | 119099 | 45.58 | ug/mL  | 96     |
| 21) 2-Nitrophenol               | 11.88 | 139 | 29485  | 47.92 | ug/mL  | 98     |
| 22) 2,4-Dimethylphenol          | 10.79 | 107 | 57307  | 49.78 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.32  | 93  | 66255  | 49.66 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.65 | 162 | 43957  | 50.41 | ug/mL  | 97     |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180 | 48531  | 52.36 | ug/mL  | 98     |
| 26) Naphthalene                 | 13.00 | 128 | 149571 | 52.24 | ug/mL# | 91     |
| 27) 4-Chloroaniline             | 13.35 | 127 | 67787  | 50.05 | ug/mL  | 98     |
| 28) Hexachlorobutadiene         | 13.50 | 225 | 27957  | 51.65 | ug/mL  | 96     |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107 | 55034  | 49.01 | ug/mL  | 100    |
| 30) 2-Chloronaphthalene         | 16.58 | 162 | 104679 | 51.41 | ug/mL  | 99     |
| 31) 2-Methylnaphthalene         | 15.14 | 142 | 108545 | 47.23 | ug/mL  | 100    |
| 33) Hexachlorocyclopentadiene   | 15.66 | 237 | 25173  | 44.85 | ug/mL  | 96     |
| 34) 2,4,6-Trichlorophenol       | 16.10 | 196 | 35610  | 42.51 | ug/mL  | 99     |
| 35) 2,4,5-Trichlorophenol       | 16.20 | 196 | 38697  | 59.22 | ug/mL  | 100    |

(#)= qualifier out of range (m) = manual integration

b7803.d BNACLP.M

Wed Jun 07 09:35:58 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7803.d

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 17.05 | 65   | 49104    | 44.34 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.82 | 163  | 128716   | 49.12 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.80 | 152  | 166597   | 48.47 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.91 | 165  | 30393    | 48.59 | ug/mL  | 97     |
| 41) 3-Nitroaniline             | 18.34 | 138  | 34672    | 49.71 | ug/mL  | 95     |
| 42) Acenaphthene               | 18.36 | 153  | 104858   | 50.73 | ug/mL  | 100    |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 16518    | 47.58 | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.13 | 109  | 16116    | 48.25 | ug/mL  | 89     |
| 45) Dibenzofuran               | 18.92 | 168  | 163832   | 50.51 | ug/mL  | 95     |
| 46) 2,4-Dinitrotoluene         | 19.96 | 165  | 113430   | 48.20 | ug/mL# | 32     |
| 47) Diethylphthalate           | 20.07 | 149  | 138770   | 47.70 | ug/mL  | 100    |
| 48) Fluorene                   | 19.96 | 166  | 122870   | 48.41 | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 63340    | 52.68 | ug/mL  | 93     |
| 51) 4-Nitroaniline             | 20.21 | 138  | 32609    | 58.46 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.30 | 198  | 23243    | 52.57 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 84236    | 49.39 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.61 | 77   | 199476   | 49.08 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.59 | 248  | 36733    | 53.12 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.58 | 284  | 38977    | 54.11 | ug/mL  | 91     |
| 58) Pentachlorophenol          | 22.29 | 266  | 26808    | 58.11 | ug/mL  | 98     |
| 59) Phenanthrene               | 22.85 | 178  | 189424   | 51.58 | ug/mL  | 100    |
| 60) Anthracene                 | 23.00 | 178  | 178492   | 52.73 | ug/mLm | 99     |
| 61) Carbazole                  | 23.64 | 167  | 170215   | 53.76 | ug/ml  | 100    |
| 62) Di-n-butylphthalate        | 25.14 | 149  | 273873   | 50.81 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.47 | 202  | 191126   | 55.04 | ug/mLm | 95     |
| 65) Benzidine                  | 27.14 | 184  | 58486    | 41.24 | ug/mlm | 100    |
| 66) Pyrene                     | 27.10 | 202  | 200950   | 41.28 | ug/mLm | 87     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 124639   | 39.98 | ug/mL  | 95     |
| 69) Benzo[a]anthracene         | 30.87 | 228  | 210709   | 42.89 | ug/mLm | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 57942    | 46.26 | ug/mL  | 99     |
| 71) Chrysene                   | 30.96 | 228  | 130675   | 47.82 | ug/mLm | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 186121   | 42.09 | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 533971   | 44.86 | ug/mLm | 99     |
| 75) Benzo[b]fluoranthene       | 33.93 | 252  | 251584   | 43.65 | ug/mLm | 99     |
| 76) Benzo[k]fluoranthene       | 34.01 | 252  | 148737   | 53.49 | ug/mLm | 94     |
| 77) Benzo[a]pyrene             | 33.93 | 252  | 147880   | 51.60 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.43 | 276  | 53465    | 50.57 | ug/mLm | 89     |
| 79) Dibenz[a,h]anthracene      | 37.54 | 278  | 44917    | 44.12 | ug/mL  | 98     |
| 80) Benzo[g,h,i]perylene       | 38.01 | 276  | 34048    | 40.97 | ug/mLm | 98     |

(#) = qualifier out of range (m) = manual integration

b7803.d BNACLP.M

Wed Jun 07 09:36:04 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7803.d

Acq On : 3 Jun 95 10:13 am

Sample : 50 STD.....

Misc :

Quant Time: Jun 7 9:32 1995

Vial: 2

Operator: SCOTTV

Inst : ABNA

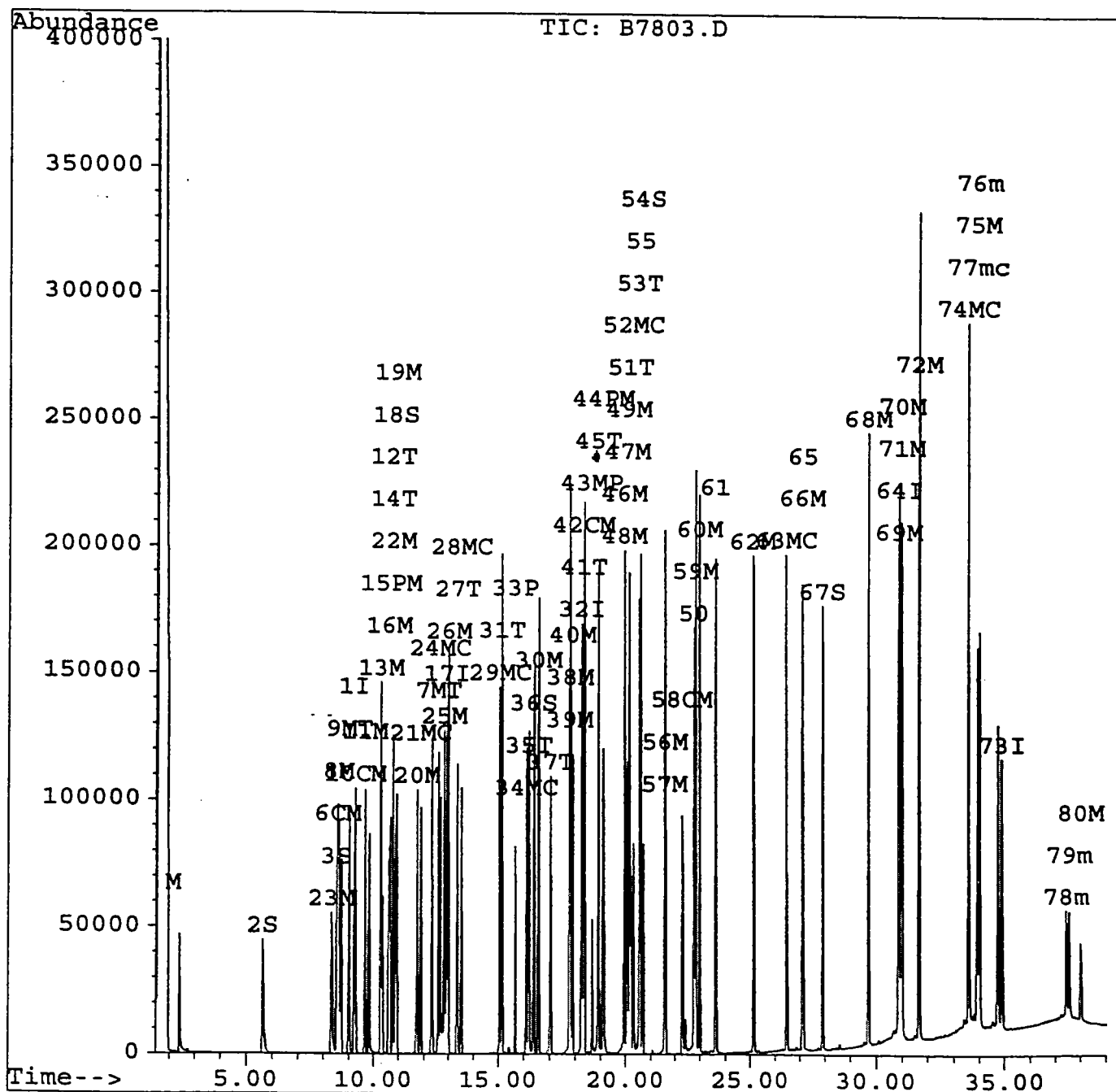
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

160

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|             | IS1 (DCB) |      | IS2 (NPT) |       | IS3 (ANT) |       |
|-------------|-----------|------|-----------|-------|-----------|-------|
|             | AREA #    | RT # | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 29236     | 9.21 | 116999    | 12.92 | 80656     | 18.26 |
| UPPER LIMIT | 58472     | 9.71 | 233998    | 13.42 | 161312    | 18.76 |
| LOWER LIMIT | 14618     | 8.71 | 58500     | 12.42 | 40328     | 17.76 |
| SAMPLE NO.  |           |      |           |       |           |       |
| 01 SBLK01   | 29342     | 9.21 | 113640    | 12.92 | 77393     | 18.25 |
| 02 9521072B | 43362     | 9.20 | 172473    | 12.92 | 120771    | 18.25 |
| 03 9521073B | 49674     | 9.20 | 207002    | 12.94 | 136613    | 18.27 |
| 04 SBLK02   | 45568     | 9.20 | 183778    | 12.92 | 124916    | 18.27 |
| 05 9522265B | 38448     | 9.21 | 156239    | 12.92 | 104790    | 18.25 |
| 06 9522845B | 34293     | 9.20 | 139874    | 12.92 | 94484     | 18.25 |
| 07 SBLK03   | 31802     | 9.20 | 131302    | 12.92 | 86836     | 18.27 |
| 08 9523339B | 31877     | 9.20 | 132687    | 12.92 | 87914     | 18.25 |
| 09 9523341B | 37996     | 9.20 | 159444    | 12.94 | 104434    | 18.27 |
| 10 9523342B | 34168     | 9.20 | 146228    | 12.94 | 97312     | 18.27 |
| 11 9523343B | 33809     | 9.20 | 139851    | 12.92 | 93023     | 18.27 |
| 12 9523530B | 34840     | 9.20 | 145007    | 12.92 | 98737     | 18.25 |
| 13 9523531B | 35055     | 9.20 | 145276    | 12.92 | 99265     | 18.27 |
| 14 9523533B | 36725     | 9.20 | 152052    | 12.92 | 102907    | 18.27 |
| 15 9523534B | 37321     | 9.29 | 127658    | 13.06 | 64338     | 18.50 |
| 16 9523535B | 36905     | 9.21 | 144207    | 12.92 | 97310     | 18.26 |
| 17 9523536B | 36125     | 9.20 | 148482    | 12.92 | 99681     | 18.27 |
| 18 SBLK04   | 38489     | 9.20 | 152333    | 12.92 | 104920    | 18.25 |
| 19 9523789B | 39839     | 9.20 | 162610    | 12.92 | 110929    | 18.27 |
| 20 9523792B | 36962     | 9.20 | 155161    | 12.92 | 105988    | 18.27 |
| 21 9523787B | 38496     | 9.20 | 159554    | 12.92 | 108441    | 18.27 |
| 22 SBLK05   | 43303     | 9.20 | 177127    | 12.92 | 122916    | 18.27 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

161

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|             | IS1 (DCB) |      | IS2 (NPT) |       | IS3 (ANT) |       |
|-------------|-----------|------|-----------|-------|-----------|-------|
|             | AREA #    | RT # | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 29236     | 9.21 | 116999    | 12.92 | 80656     | 18.26 |
| UPPER LIMIT | 58472     | 9.71 | 233998    | 13.42 | 161312    | 18.76 |
| LOWER LIMIT | 14618     | 8.71 | 58500     | 12.42 | 40328     | 17.76 |
| SAMPLE NO.  |           |      |           |       |           |       |
| 01 22654MS  | 33780     | 9.20 | 129967    | 12.94 | 93254     | 18.26 |
| 02 22654MSD | 35303     | 9.20 | 144937    | 12.94 | 99611     | 18.26 |
| 03 22659MS  | 28616     | 9.20 | 119812    | 12.94 | 81829     | 18.26 |
| 04 22659MSD | 30456     | 9.21 | 121585    | 12.94 | 84364     | 18.26 |
| 05          |           |      |           |       |           |       |
| 06          |           |      |           |       |           |       |
| 07          |           |      |           |       |           |       |
| 08          |           |      |           |       |           |       |
| 09          |           |      |           |       |           |       |
| 10          |           |      |           |       |           |       |
| 11          |           |      |           |       |           |       |
| 12          |           |      |           |       |           |       |
| 13          |           |      |           |       |           |       |
| 14          |           |      |           |       |           |       |
| 15          |           |      |           |       |           |       |
| 16          |           |      |           |       |           |       |
| 17          |           |      |           |       |           |       |
| 18          |           |      |           |       |           |       |
| 19          |           |      |           |       |           |       |
| 20          |           |      |           |       |           |       |
| 21          |           |      |           |       |           |       |
| 22          |           |      |           |       |           |       |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

162

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|             | IS4 (PHN) | RT #  | IS5 (CRY) | RT #  | IS6 (PRY) | RT #  |
|-------------|-----------|-------|-----------|-------|-----------|-------|
|             | AREA #    |       | AREA #    |       | AREA #    |       |
| 12 HOUR STD | 134208    | 22.77 | 129676    | 30.89 | 93467     | 34.90 |
| UPPER LIMIT | 268416    | 23.27 | 259352    | 31.39 | 186934    | 35.40 |
| LOWER LIMIT | 67104     | 22.27 | 64838     | 30.39 | 46734     | 34.40 |
| SAMPLE NO.  |           |       |           |       |           |       |
| 01 SBLK01   | 127774    | 22.76 | 144639    | 30.86 | 143369    | 34.89 |
| 02 9521072B | 201946    | 22.77 | 208937    | 30.89 | 160791    | 34.90 |
| 03 9521073B | 222787    | 22.77 | 231737    | 30.89 | 165808    | 34.90 |
| 04 SBLK02   | 200423    | 22.77 | 227269    | 30.88 | 184816    | 34.91 |
| 05 9522265B | 172502    | 22.78 | 184570    | 30.88 | 122938    | 34.91 |
| 06 9522845B | 149864    | 22.78 | 156654    | 30.88 | 124082    | 34.91 |
| 07 SBLK03   | 142609    | 22.77 | 151919    | 30.88 | 122270    | 34.91 |
| 08 9523339B | 145640    | 22.78 | 157437    | 30.89 | 128975    | 34.92 |
| 09 9523341B | 172617    | 22.77 | 198222    | 30.90 | 166777    | 34.93 |
| 10 9523342B | 156213    | 22.77 | 174808    | 30.88 | 147217    | 34.91 |
| 11 9523343B | 149747    | 22.77 | 162481    | 30.88 | 137109    | 34.91 |
| 12 9523530B | 159922    | 22.78 | 179407    | 30.88 | 152667    | 34.91 |
| 13 9523531B | 164218    | 22.77 | 179435    | 30.88 | 151215    | 34.91 |
| 14 9523533B | 167089    | 22.77 | 185071    | 30.88 | 155624    | 34.91 |
| 15 9523534B | 126172    | 22.95 | 162548    | 30.91 | 85072     | 34.88 |
| 16 9523535B | 153052    | 22.76 | 160811    | 30.89 | 134801    | 34.89 |
| 17 9523536B | 149413    | 22.77 | 158425    | 30.88 | 129419    | 34.91 |
| 18 SBLK04   | 168411    | 22.78 | 175380    | 30.88 | 148566    | 34.91 |
| 19 9523789B | 183194    | 22.77 | 209328    | 30.88 | 181543    | 34.91 |
| 20 9523792B | 175832    | 22.77 | 198461    | 30.88 | 168915    | 34.91 |
| 21 9523787B | 177208    | 22.77 | 191680    | 30.88 | 155077    | 34.91 |
| 22 SBLK05   | 199698    | 22.77 | 216974    | 30.88 | 174620    | 34.91 |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.



## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

163

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|    |             | IS4 (PHN) |       | IS5 (CRY) |       | IS6 (PRY) |       |
|----|-------------|-----------|-------|-----------|-------|-----------|-------|
|    |             | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
|    | 12 HOUR STD | 134208    | 22.77 | 129676    | 30.89 | 93467     | 34.90 |
|    | UPPER LIMIT | 268416    | 23.27 | 259352    | 31.39 | 186934    | 35.40 |
|    | LOWER LIMIT | 67104     | 22.27 | 64838     | 30.39 | 46734     | 34.40 |
|    | SAMPLE NO.  |           |       |           |       |           |       |
| 01 | 22654MS     | 155903    | 22.77 | 148922    | 30.91 | 65345     | 34.91 |
| 02 | 22654MSD    | 164759    | 22.77 | 152801    | 30.91 | 66464     | 34.91 |
| 03 | 22659MS     | 135678    | 22.77 | 133913    | 30.90 | 64806     | 34.89 |
| 04 | 22659MSD    | 145091    | 22.77 | 140877    | 30.90 | 65773     | 34.90 |
| 05 |             |           |       |           |       |           |       |
| 06 |             |           |       |           |       |           |       |
| 07 |             |           |       |           |       |           |       |
| 08 |             |           |       |           |       |           |       |
| 09 |             |           |       |           |       |           |       |
| 10 |             |           |       |           |       |           |       |
| 11 |             |           |       |           |       |           |       |
| 12 |             |           |       |           |       |           |       |
| 13 |             |           |       |           |       |           |       |
| 14 |             |           |       |           |       |           |       |
| 15 |             |           |       |           |       |           |       |
| 16 |             |           |       |           |       |           |       |
| 17 |             |           |       |           |       |           |       |
| 18 |             |           |       |           |       |           |       |
| 19 |             |           |       |           |       |           |       |
| 20 |             |           |       |           |       |           |       |
| 21 |             |           |       |           |       |           |       |
| 22 |             |           |       |           |       |           |       |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. **164**

**9523339B**

Lab Name: EMSL ANALYTICAL Contract:                      7W1-2931777

Project No.:                      Site:                      Location:                      Group:                     

Matrix: (soil/water) WATER Lab Sample ID: 9523339B

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7811.D

Level: (low/med)                      Date Received: 5/22/95

% Moisture:                      decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:                     

| CAS No.   | Compound                      | Concentration Units: |      | Q |
|-----------|-------------------------------|----------------------|------|---|
|           |                               | (ug/L or ug/Kg)      | ug/L |   |
| 62-75-9   | N-nitrosodimethylamine        | 2                    |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1                    |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2                    |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1                    |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2                    |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5                    |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2                    |      | U |
| 67-72-1   | Hexachloroethane              | 1                    |      | U |
| 98-95-3   | Nitrobenzene                  | 2                    |      | U |
| 78-59-1   | Isophorone                    | 1                    |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3                    |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2                    |      | U |
| 91-20-3   | Naphthalene                   | 2                    |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2                    |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12                   |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1                    |      | U |
| 131-11-3  | Dimethylphthalate             | 1                    |      | U |
| 208-96-8  | Acenaphthylene                | 5                    |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2                    |      | U |
| 83-32-9   | Acenaphthene                  | 3                    |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3                    |      | U |
| 84-66-2   | Diethylphthalate              | 1                    |      | U |
| 86-73-7   | Fluorene                      | 3                    |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3                    |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6                    |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6                    |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2                    |      | U |
| 118-74-1  | Hexachlorobenzene             | 2                    |      | U |
| 85-01-08  | Phenanthrene                  | 2                    |      | U |
| 120-12-7  | Anthracene                    | 2                    |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5                    |      | U |
| 206-44-0  | Fluoranthene                  | 1                    |      | U |
| 92-87-5   | Benzidine                     | 1                    |      | U |

**Lab Name: EMSL ANALYTICAL**

**Contract:**

**9523339B**

MW1-29317777

**Project No.:**

**Site:**

**Location:**

**Group:**

**Matrix:** (soil/water)

## WATER

Lab Sample ID: 9523339B

**Sample wt/vol:**

1000.0 (g/mL ML

Lab File ID: B7811.D

**Level:** (low/med)

Date Received: 5/22/95

**% Moisture:**

decanted: (Y/N): N

Date Extracted: 5/26/95

**Concentrated Extract Volume:**

1000 (uL)

Date Analyzed: 6/3/95

**Injection Volume:**

1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

**N**

**pH:**

**Concentration Units:**

(ug/L or ug/Kg)

ug/L

O

[illegible]

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO **166**

9523339B

MW-2931777

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: 9523339B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7811.D

Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Number TICs found: 4 Concentration Units: (ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name              | RT    | Est. Conc | Q |
|-------------|----------------------------|-------|-----------|---|
| 1. 90-12-0  | Naphthalene, 1-methyl-     | 15.13 | 4         | J |
| 2. 575-43-9 | Naphthalene, 1,6-dimethyl- | 17.31 | 5         | J |
| 3.          | Unknown                    | 29.87 | 6         | J |
| 4.          | Unknown                    | 34.38 | 4         | J |
| 5.          |                            |       |           |   |
| 6.          |                            |       |           |   |
| 7.          |                            |       |           |   |
| 8.          |                            |       |           |   |
| 9.          |                            |       |           |   |
| 10.         |                            |       |           |   |
| 11.         |                            |       |           |   |
| 12.         |                            |       |           |   |
| 13.         |                            |       |           |   |
| 14.         |                            |       |           |   |
| 15.         |                            |       |           |   |
| 16.         |                            |       |           |   |
| 17.         |                            |       |           |   |
| 18.         |                            |       |           |   |
| 19.         |                            |       |           |   |
| 20.         |                            |       |           |   |
| 21.         |                            |       |           |   |
| 22.         |                            |       |           |   |
| 23.         |                            |       |           |   |
| 24.         |                            |       |           |   |
| 25.         |                            |       |           |   |
| 26.         |                            |       |           |   |
| 27.         |                            |       |           |   |
| 28.         |                            |       |           |   |
| 29.         |                            |       |           |   |
| 30.         |                            |       |           |   |

## Quantitation Report

167

Data File : c:\hpchem\1\data2\b7811.d

Vial: 10

Acq On : 3 Jun 95 4:56 pm

Operator: SCOTTV

Sample : 23339..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 5 15:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 31877    | 40.00 | ug/mL | 0.17      |
| 17) Naphthalene-d8        | 12.92 | 136  | 132687   | 40.00 | ug/mL | 0.17      |
| 32) Acenaphthene-d10      | 18.25 | 164  | 87914    | 40.00 | ug/mL | 0.21      |
| 50) Phenanthrene-d10      | 22.78 | 188  | 145640   | 40.00 | ug/mL | 0.26      |
| 64) Chrysene-d12          | 30.89 | 240  | 157437   | 40.00 | ug/mL | 0.31      |
| 73) Perylene-d12          | 34.92 | 264  | 128975   | 40.00 | ug/mL | 0.32      |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.62  | 112 | 39308  | 43.60 | ug/mL | 43.60%    |
| 3) Phenol-d5                | 8.53  | 99  | 41965  | 28.12 | ug/mL | 28.12%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 110746 | 73.26 | ug/mL | 73.26%    |
| 36) 2-Fluorobiphenyl        | 16.41 | 172 | 182387 | 69.16 | ug/mL | 69.16%    |
| 54) 2,4,6-Tribromophenol    | 20.70 | 330 | 34277  | 87.15 | ug/mL | 87.15%    |
| 67) Terphenyl-d14           | 27.94 | 244 | 249851 | 59.79 | ug/mL | 59.79%    |

Target Compounds

Qvalue

-----  
(#) = qualifier out of range (m) = manual integration

b7811.d BNACLP.M

Mon Jun 05 16:18:36 1995

BNA

Page 1

## Quantitation Report

168

Data File : c:\hpchem\1\data2\b7811.d

Vial: 10

Acq On : 3 Jun 95 4:56 pm

Operator: SCOTTV

Sample : 23339..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

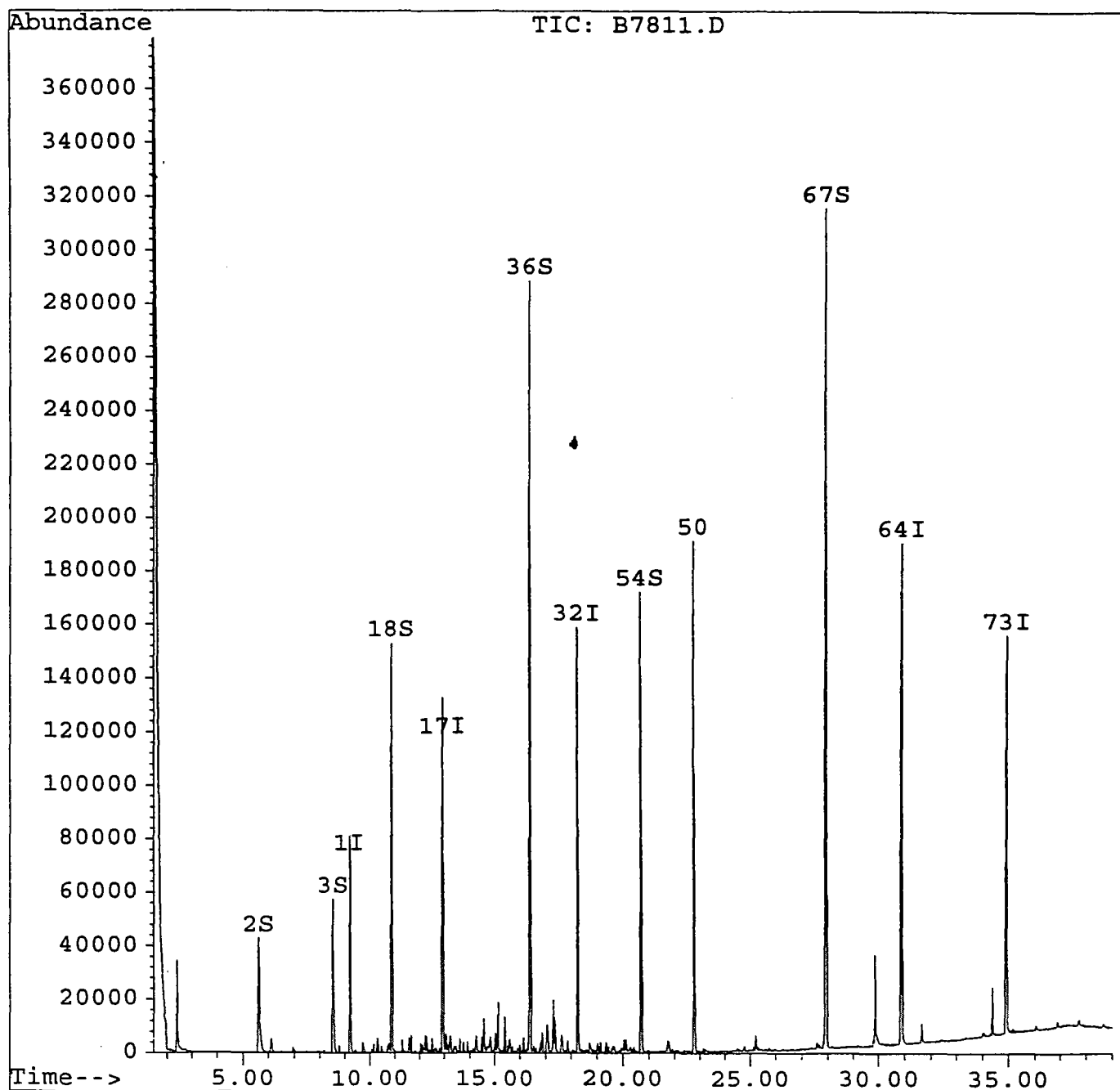
Quant Time: Jun 5 15:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7811.d

Acq On : 3 Jun 95 4:56 pm

Sample : 23339.....

Misc :

Vial: 10

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

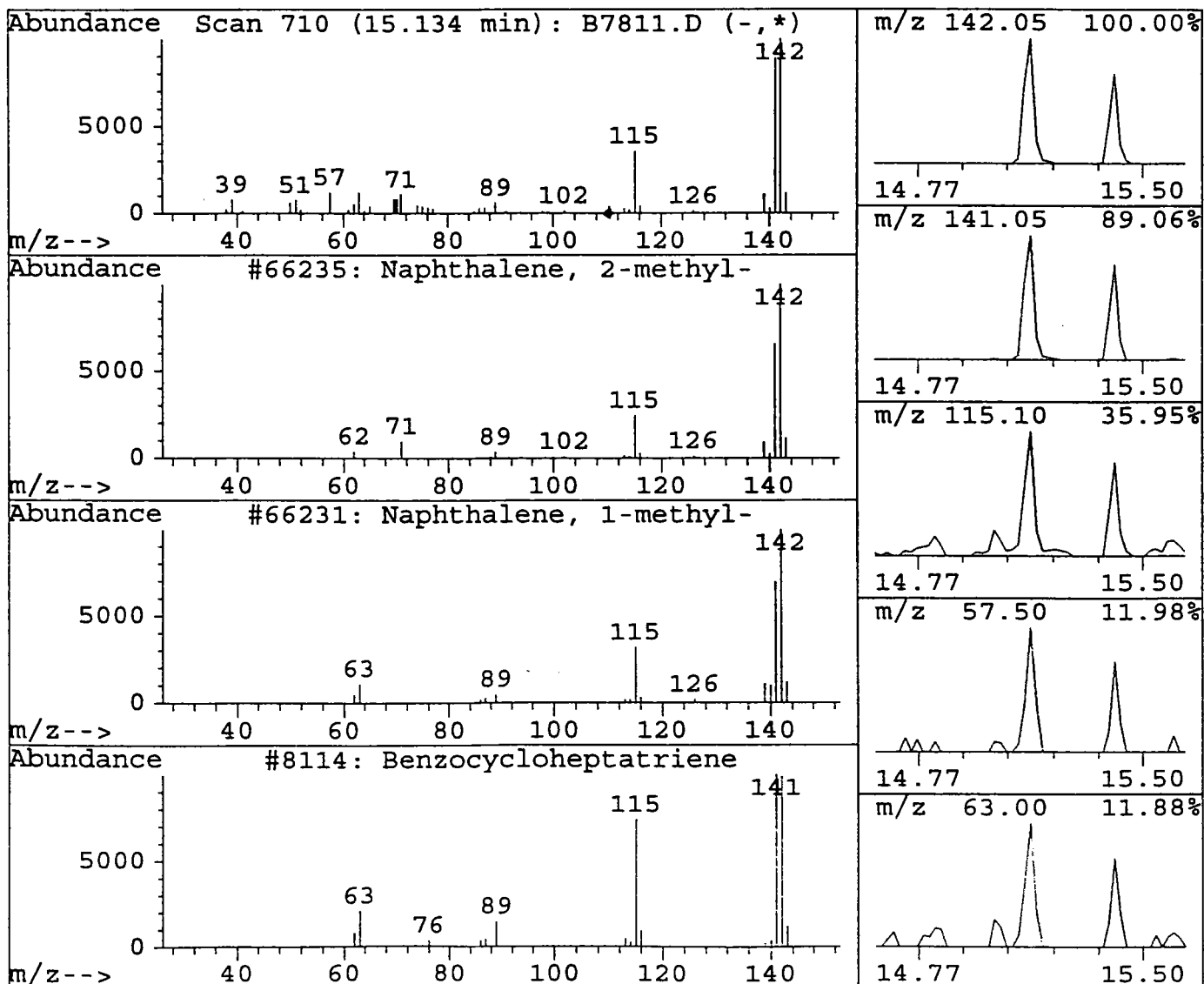
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 15.13 | 4.28 ug/ml | 35059 | Naphthalene-d8   | 12.92 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Naphthalene, 2-methyl-              | 66235 | 000091-57-6 | 95   |
| 2          | Naphthalene, 1-methyl-              | 66231 | 000090-12-0 | 94   |
| 3          | Benzocycloheptatriene               | 8114  | 000264-09-5 | 93   |
| 4          | 1,4-Methanonaphthalene, 1,4-dihydro | 8112  | 004453-90-1 | 87   |
| 5          | 1H-Indene, 1-ethylidene-            | 8113  | 002471-83-2 | 64   |



Data File : c:\hpchem\1\data2\b7811.d

Vial: 10

Acq On : 3 Jun 95 4:56 pm

Operator: SCOTTV

Sample : 23339.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

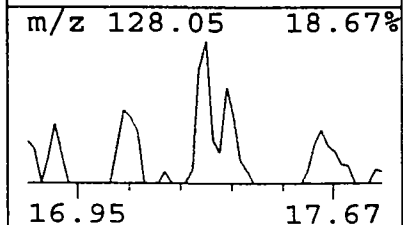
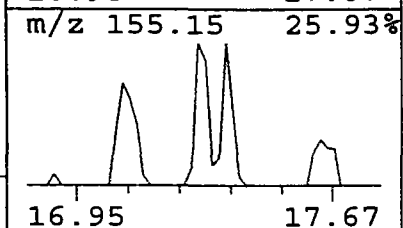
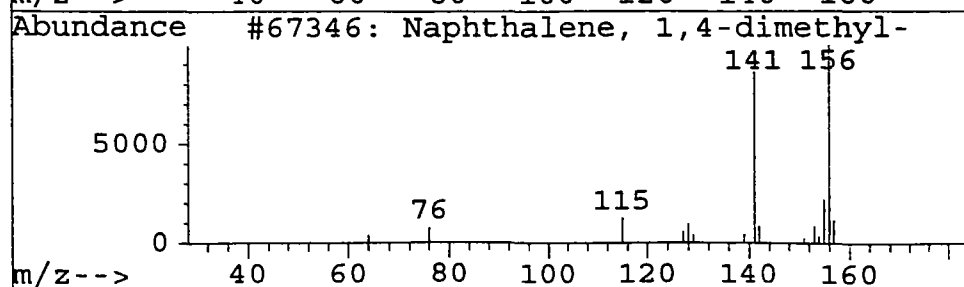
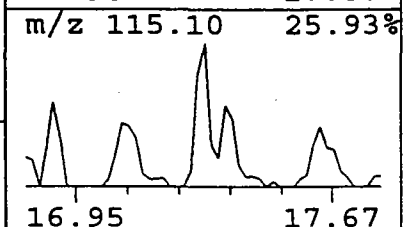
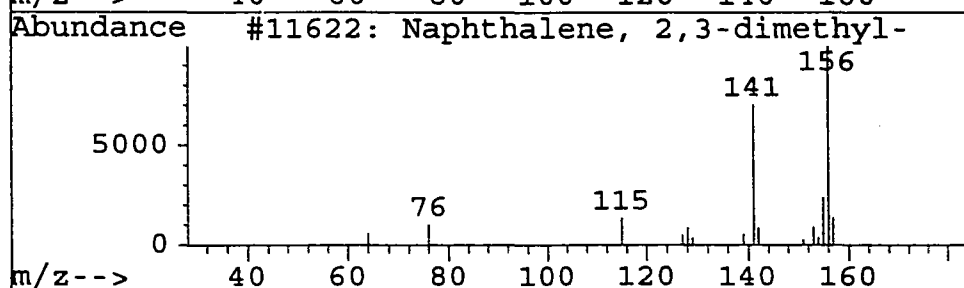
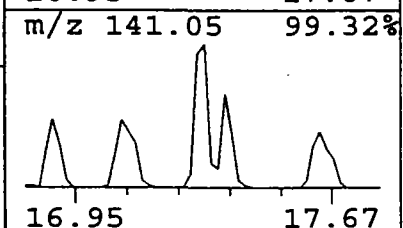
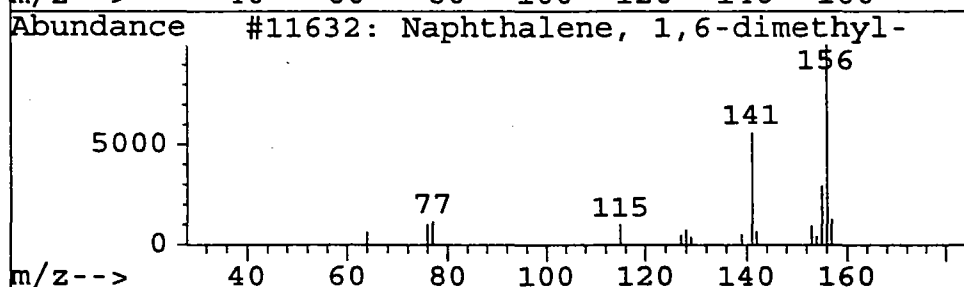
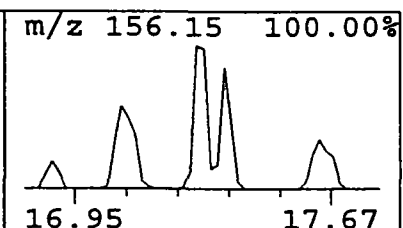
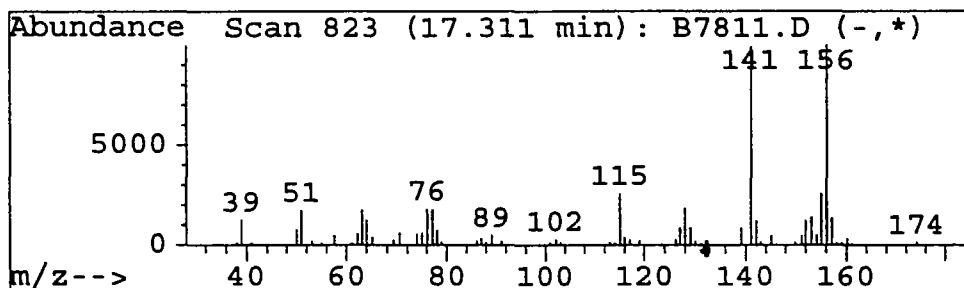
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 17.31 | 4.67 ug/ml | 50186 | Acenaphthene-d10 | 18.25 |

| Hit# of 20 | Tentative ID               | Ref#  | CAS#        | Qual |
|------------|----------------------------|-------|-------------|------|
| 1          | Naphthalene, 1,6-dimethyl- | 11632 | 000575-43-9 | 97   |
| 2          | Naphthalene, 2,3-dimethyl- | 11622 | 000581-40-8 | 97   |
| 3          | Naphthalene, 1,4-dimethyl- | 67346 | 000571-58-4 | 97   |
| 4          | Naphthalene, 1,2-dimethyl- | 67333 | 000573-98-8 | 96   |
| 5          | Naphthalene, 1,7-dimethyl- | 67343 | 000575-37-1 | 96   |





Data File : c:\hpchem\1\data2\b7811.d

Vial: 10

Acq On : 3 Jun 95 4:56 pm

Operator: SCOTTV

Sample : 23339.....

Converted from RTE d Inst : ABNA

Misc :

BT Multplr: 1.00

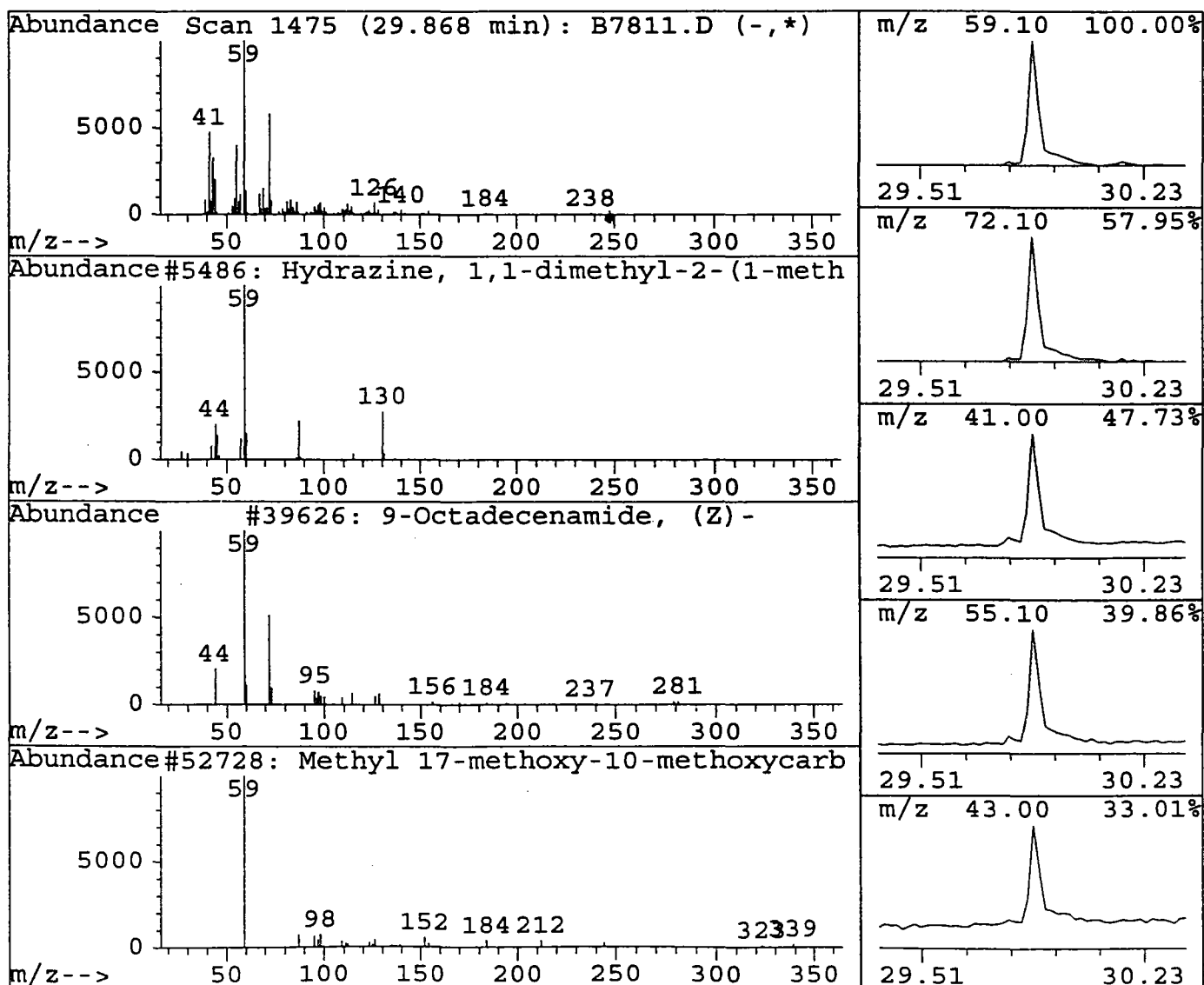
Method : c:\HPCHEM\1\METHODS\BNACLP.M

```
Title      : CLP BNA Calibration
```

```
Library : C:\DATABASE\NBS75K.L
```

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 29.87 | 6.26 ug/ml | 73373 | Chrysene-d12     | 30.89 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Hydrazine, 1,1-dimethyl-2-(1-methyl | 5486  | 075267-97-9 | 38   |
| 2          | 9-Octadecenamide, (Z)-              | 39626 | 000301-02-0 | 38   |
| 3          | Methyl 17-methoxy-10-methoxycarbony | 52728 | 000000-00-0 | 37   |
| 4          | Cyclooctanemethanol, .alpha.,.alpha | 15325 | 016624-06-9 | 35   |
| 5          | 7-Octen-2-ol, 2,6-dimethyl-         | 11588 | 018479-58-8 | 35   |



Data File : c:\hpchem\1\data2\b7811.d

Vial: 10

Acq On : 3 Jun 95 4:56 pm

Operator: SCOTTV

Sample : 23339.....

Converted from RTE d Inst

: ABNA

Misc :

BT Multiplr: 1.00

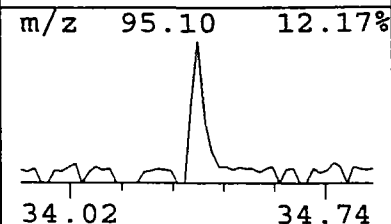
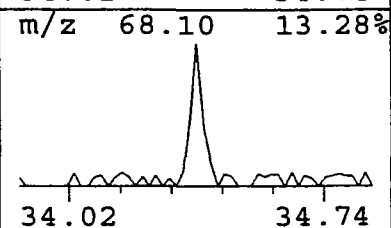
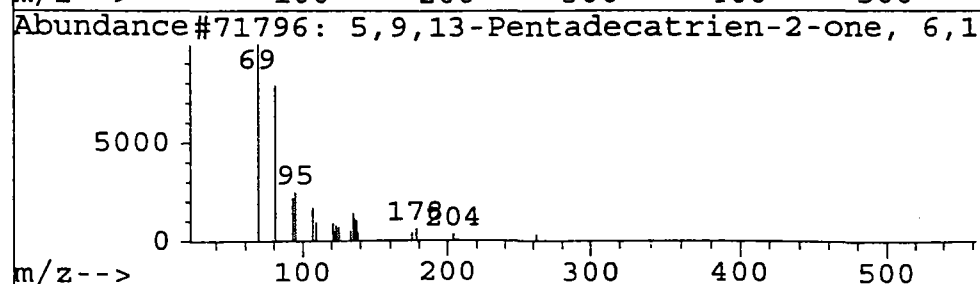
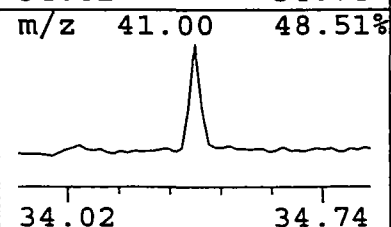
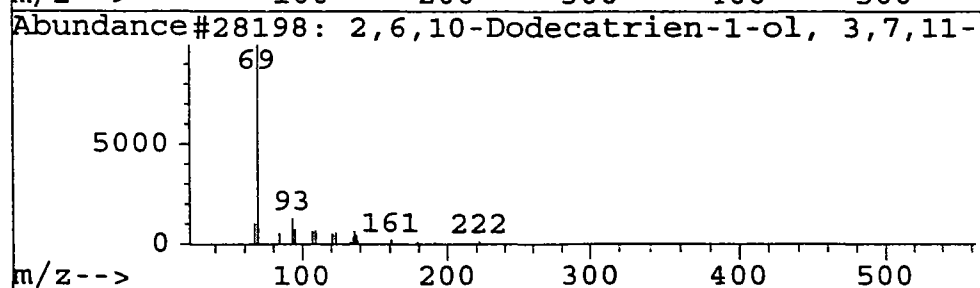
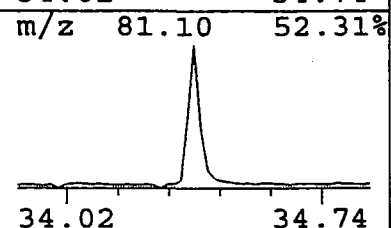
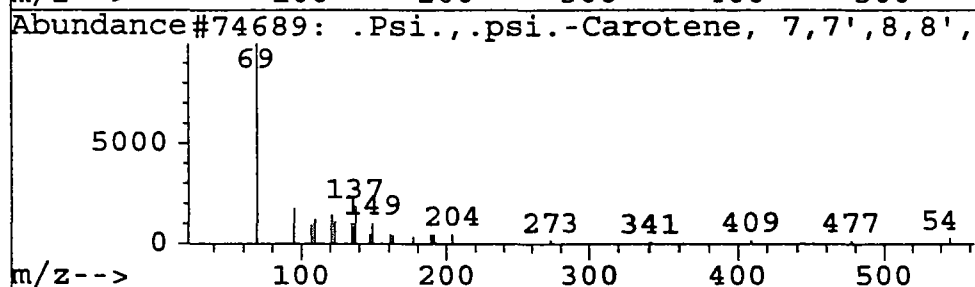
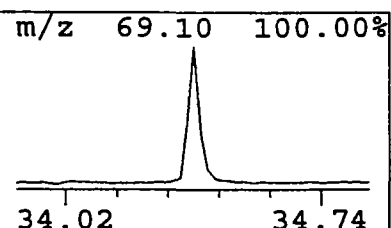
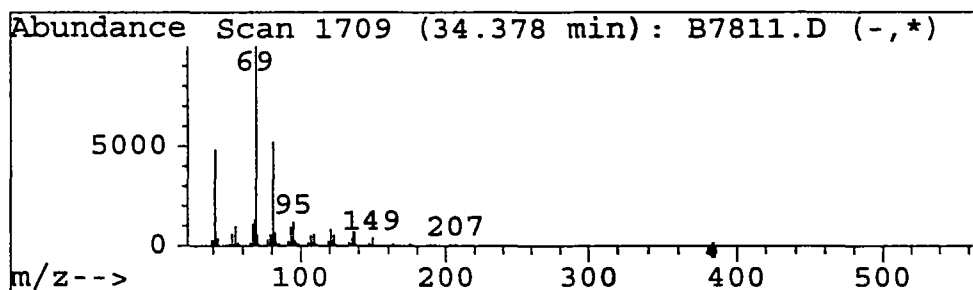
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 34.38 | 4.25 ug/ml | 41345 | Perylene-d12     | 34.92 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | .Psi.,.psi.-Carotene, 7,7',8,8',11, | 74689 | 000502-62-5 | 74   |
| 2          | 2,6,10-Dodecatrien-1-ol, 3,7,11-tri | 28198 | 000106-28-5 | 74   |
| 3          | 5,9,13-Pentadecatrien-2-one, 6,10,1 | 71796 | 001117-52-8 | 72   |
| 4          | 3,7,11-Tridecatrienitrile, 4,8,12   | 30165 | 006006-01-5 | 72   |
| 5          | 1,5-Heptadiene, 3,4-dimethyl-       | 4208  | 000000-00-0 | 58   |



1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. **173**

**9523341B**

Lab Name: EMSL ANALYTICAL Contract: FB

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: 9523341B

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7812.D

Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95

% Moisture: \_\_\_\_\_ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

| CAS No.   | Compound                      | Concentration Units: |      |
|-----------|-------------------------------|----------------------|------|
|           |                               | (ug/L or ug/Kg)      | ug/L |
|           |                               |                      | Q    |
| 62-75-9   | N-nitrosodimethylamine        | 2                    | U    |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1                    | U    |
| 541-73-1  | 1,3-Dichlorobenzene           | 2                    | U    |
| 106-46-7  | 1,4-Dichlorobenzene           | 1                    | U    |
| 95-50-1   | 1,2-Dichlorobenzene           | 2                    | U    |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5                    | U    |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2                    | U    |
| 67-72-1   | Hexachloroethane              | 1                    | U    |
| 98-95-3   | Nitrobenzene                  | 2                    | U    |
| 78-59-1   | Isophorone                    | 1                    | U    |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3                    | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2                    | U    |
| 91-20-3   | Naphthalene                   | 2                    | U    |
| 87-68-3   | Hexachlorobutadiene           | 2                    | U    |
| 77-47-4   | Hexachlorocyclopentadiene     | 12                   | U    |
| 91-58-7   | 2-Chloronaphthalene           | 1                    | U    |
| 131-11-3  | Dimethylphthalate             | 1                    | U    |
| 208-96-8  | Acenaphthylene                | 5                    | U    |
| 606-20-2  | 2,6-Dinitrotoluene            | 2                    | U    |
| 83-32-9   | Acenaphthene                  | 3                    | U    |
| 121-14-2  | 2,4-Dinitrotoluene            | 3                    | U    |
| 84-66-2   | Diethylphthalate              | 1                    | U    |
| 86-73-7   | Fluorene                      | 3                    | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3                    | U    |
| 86-30-6   | n-Nitrosodiphenylamine        | 6                    | U    |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6                    | U    |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2                    | U    |
| 118-74-1  | Hexachlorobenzene             | 2                    | U    |
| 85-01-08  | Phenanthrene                  | 2                    | U    |
| 120-12-7  | Anthracene                    | 2                    | U    |
| 84-74-2   | Di-n-butylphthalate           | 5                    | U    |
| 206-44-0  | Fluoranthene                  | 1                    | U    |
| 92-87-5   | Benzidine                     | 1                    | U    |

**Lab Name: EMSL ANALYTICAL**

**Contract:**

**9523341B**

FP

**Project No.:**

**Site:**

**Location:**

**Group:**

**Matrix:** (soil/water)

## WATER

Lab Sample ID: 9523341B

**Sample wt/vol:**

1000.0 (g/mL ML

**Lab File ID: B7812.D**

**Level:** (low/med)

Date Received: 5/22/95

**% Moisture:**

decanted: (Y/N): N

**Date Extracted:** 5/26/95

**Concentrated Extract Volume:**

1000 (uL)

Date Analyzed: 6/3/95

**Injection Volume:**

1.0 (uL)

Dilution Factor: 1.0

**GPC Cleanup: (Y/N)**

N

pH:

**Concentration Units:**

(ug/L or ug/Kg)

ug/L

**Q**

[illegible]

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

175

9523341B

FB

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 9523341B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B7812.D

Level: (low/med) \_\_\_\_\_

Date Received: 5/22/95

% Moisture: 0

decanted: (Y/N) N

Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT    | Est. Conc | Q |
|------------|---------------|-------|-----------|---|
| 1.         | Unknown       | 29.88 | 7         | J |
| 2.         |               |       |           |   |
| 3.         |               |       |           |   |
| 4.         |               |       |           |   |
| 5.         |               |       |           |   |
| 6.         |               |       |           |   |
| 7.         |               |       |           |   |
| 8.         |               |       |           |   |
| 9.         |               |       |           |   |
| 10.        |               |       |           |   |
| 11.        |               |       |           |   |
| 12.        |               |       |           |   |
| 13.        |               |       |           |   |
| 14.        |               |       |           |   |
| 15.        |               |       |           |   |
| 16.        |               |       |           |   |
| 17.        |               |       |           |   |
| 18.        |               |       |           |   |
| 19.        |               |       |           |   |
| 20.        |               |       |           |   |
| 21.        |               |       |           |   |
| 22.        |               |       |           |   |
| 23.        |               |       |           |   |
| 24.        |               |       |           |   |
| 25.        |               |       |           |   |
| 26.        |               |       |           |   |
| 27.        |               |       |           |   |
| 28.        |               |       |           |   |
| 29.        |               |       |           |   |
| 30.        |               |       |           |   |

## Quantitation Report

Data File : c:\hpchem\1\data2\b7812.d

Vial: 11

176

Acq On : 3 Jun 95 5:47 pm

Operator: SCOTTV

Sample : 23341.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 5 15:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 37996    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 159444   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.27 | 164  | 104434   | 40.00 | ug/mL | 0.22     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 172617   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.90 | 240  | 198222   | 40.00 | ug/mL | 0.32     |
| 73) Perylene-d12          | 34.93 | 264  | 166777   | 40.00 | ug/mL | 0.33     |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |       |       |        |
|--------------------------|-------|-----|--------|-------|-------|--------|
| 2) 2-Fluorophenol        | 0.00  | 112 | 0      | 0.00  | ug/mL | 0.00%  |
| 3) Phenol-d5             | 9.22  | 99  | 398    | 0.22  | ug/mL | 0.22%  |
| 18) Nitrobenzene-d5      | 10.88 | 82  | 110053 | 60.58 | ug/mL | 60.58% |
| 36) 2-Fluorobiphenyl     | 16.40 | 172 | 187875 | 59.97 | ug/mL | 59.97% |
| 54) 2,4,6-Tribromophenol | 0.00  | 330 | 0      | 0.00  | ug/mL | 0.00%  |
| 67) Terphenyl-d14        | 27.95 | 244 | 330666 | 62.85 | ug/mL | 62.85% |

## Target Compounds

Qvalue

-----  
(#) = qualifier out of range (m) = manual integration

b7812.d BNACLP.M

Mon Jun 05 16:20:18 1995

BNA

Page 1

## Quantitation Report

177

Data File : c:\hpchem\1\data2\b7812.d

Vial: 11

Acq On : 3 Jun 95 5:47 pm

Operator: SCOTTV

Sample : 23341.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

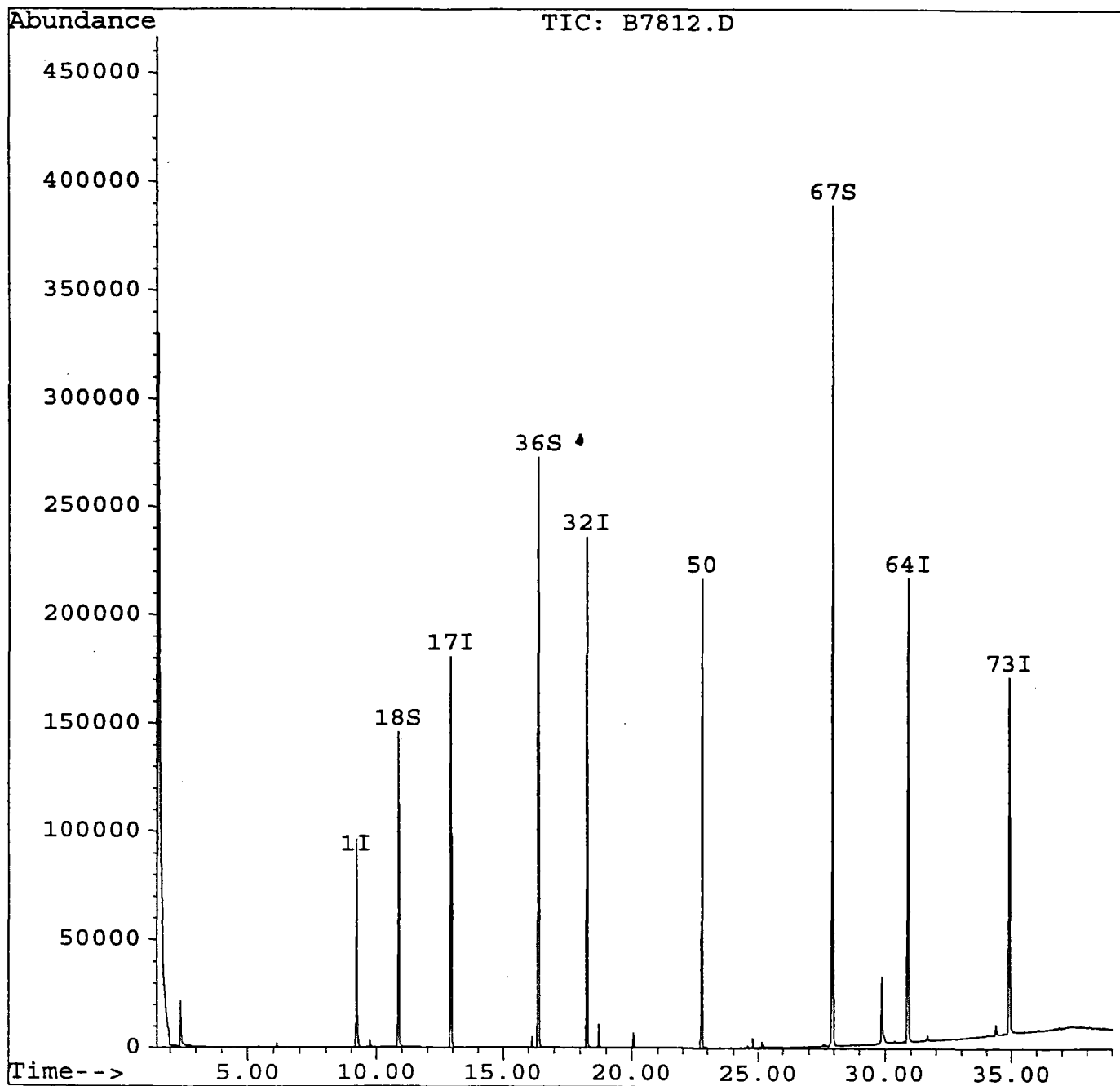
Quant Time: Jun 5 15:46 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7812.d

Vial: 11

Acq On : 3 Jun 95 5:47 pm

Operator: SCOTTV

Sample : 23341.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

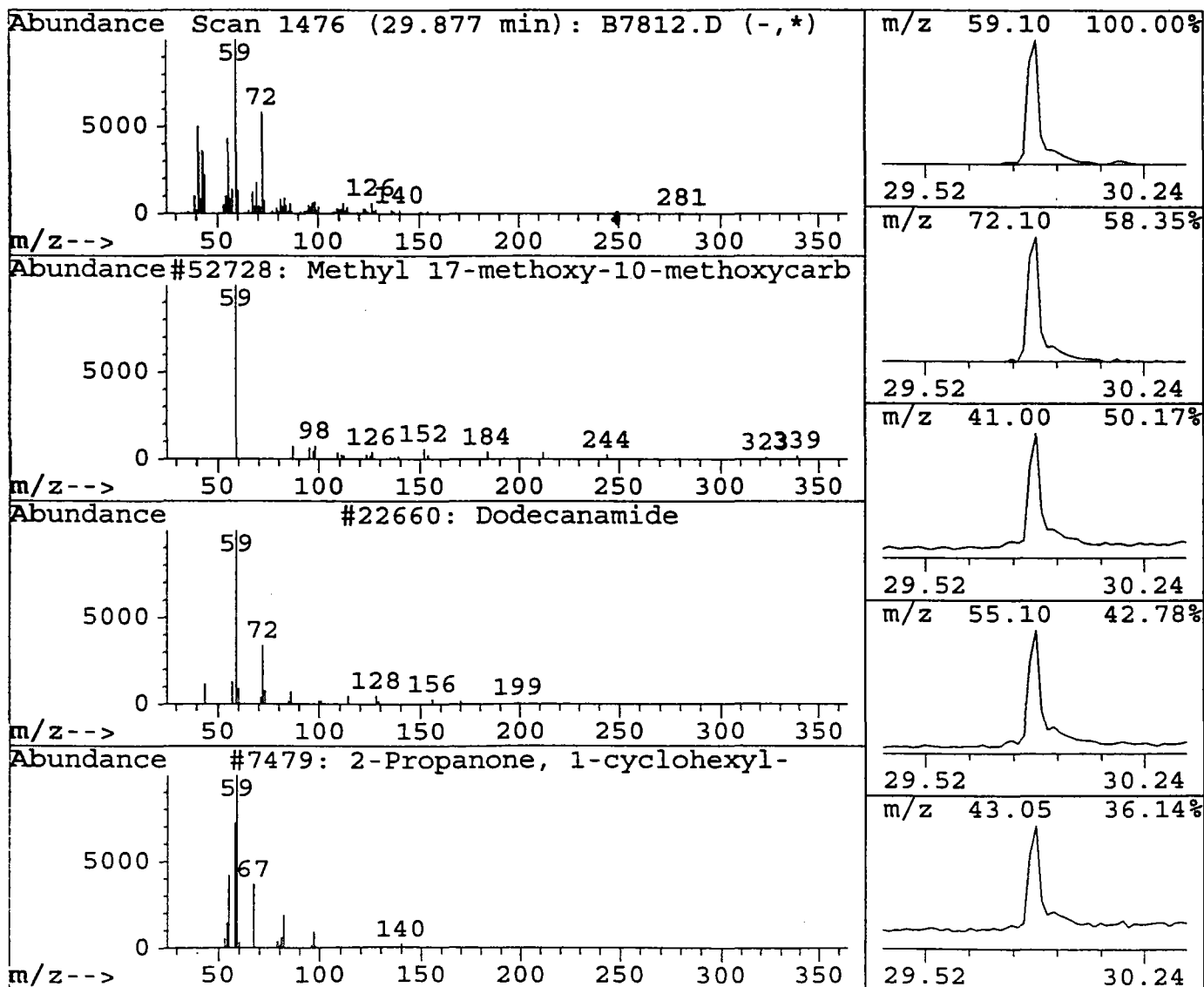
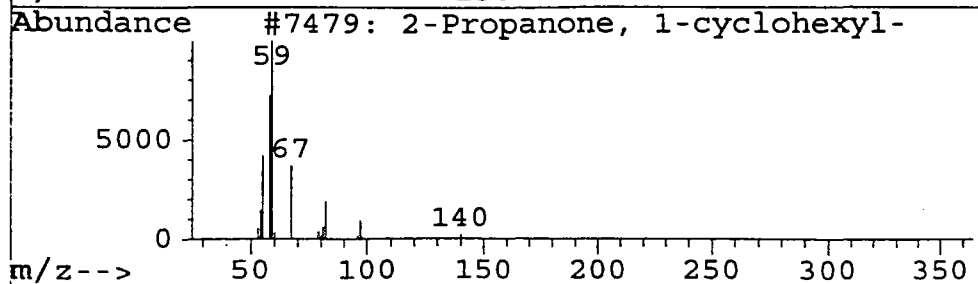
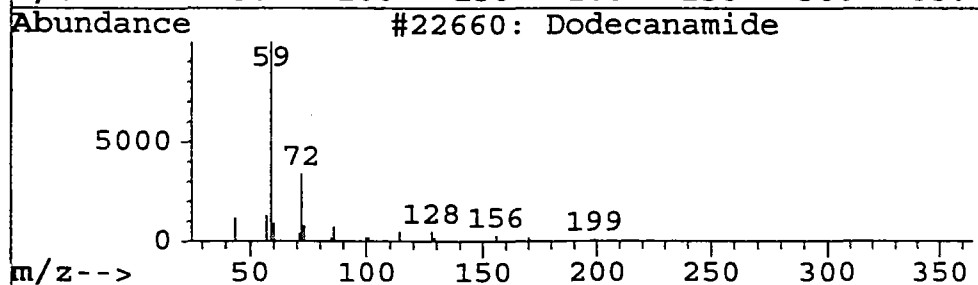
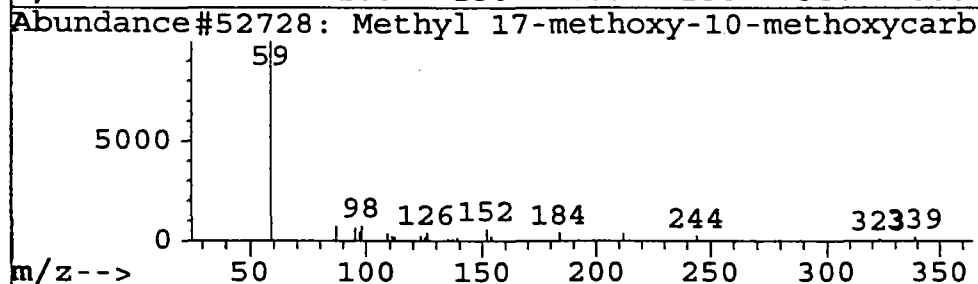
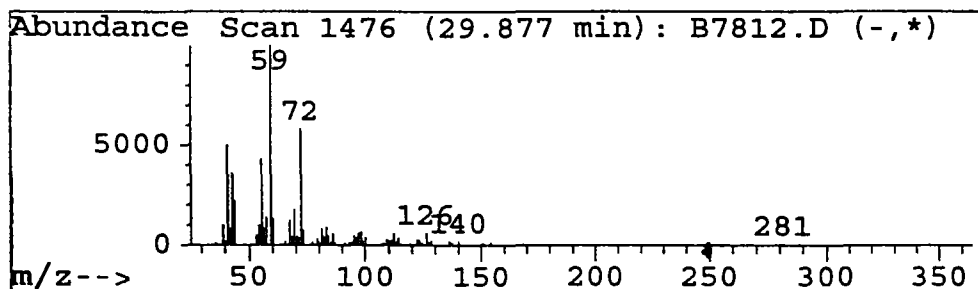
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 29.88 | 6.60 ug/ml | 95507 | Chrysene-d12     | 30.90 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Methyl 17-methoxy-10-methoxycarbony | 52728 | 000000-00-0 | 43   |
| 2          | Dodecanamide                        | 22660 | 001120-16-7 | 40   |
| 3          | 2-Propanone, 1-cyclohexyl-          | 7479  | 000103-78-6 | 38   |
| 4          | Hydrazine, 1,1-dimethyl-2-(1-methyl | 5486  | 075267-97-9 | 38   |
| 5          | Pentanamide, 4-methyl-              | 3136  | 001119-29-5 | 37   |





2C  
WATER SEMIVOLATILE SURROGATE RECOVERY

179

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

|    | SAMPLE NO. | S1<br>(NBZ) # | S2<br>(FBP) # | S3<br>(TPH) # | # | # | # | # | # | TOT<br>OUT |
|----|------------|---------------|---------------|---------------|---|---|---|---|---|------------|
| 01 | SBLK02     | 29            | 23            | 38            |   |   |   |   |   |            |
| 02 | 9522265B   | 44            | 37            | 66            |   |   |   |   |   |            |
| 03 | 9522845B   | 60            | 49            | 73            |   |   |   |   |   |            |
| 04 | SBLK03     | 68            | 67            | 89            |   |   |   |   |   |            |
| 05 | 9523339B   | 73            | 69            | 60            |   |   |   |   |   |            |
| 06 | 9523341B   | 61            | 60            | 63            |   |   |   |   |   |            |
| 07 | 9523342B   | 74            | 70            | 68            |   |   |   |   |   |            |
| 08 | 9523343B   | 64            | 62            | 72            |   |   |   |   |   |            |
| 09 | 9523530B   | 64            | 61            | 65            |   |   |   |   |   |            |
| 10 | 9523531B   | 73            | 67            | 69            |   |   |   |   |   |            |
| 11 | 9523533B   | 40            | 39            | 64            |   |   |   |   |   |            |
| 12 | 9523534B   | 81            | 67            | 76            |   |   |   |   |   |            |
| 13 | 9523535B   | 70            | 69            | 68            |   |   |   |   |   |            |
| 14 | 9523536B   | 62            | 65            | 68            |   |   |   |   |   |            |
| 15 | SBLK04     | 62            | 61            | 68            |   |   |   |   |   |            |
| 16 | 9523789B   | 57            | 61            | 72            |   |   |   |   |   |            |
| 17 | 9523792B   | 60            | 64            | 70            |   |   |   |   |   |            |
| 18 | 9523787B   | 39            | 43            | 63            |   |   |   |   |   |            |
| 19 | SBLK05     | 57            | 55            | 63            |   |   |   |   |   |            |
| 20 | 22654MS    | 91            | 63            | 82            |   |   |   |   |   |            |
| 21 | 22654MSD   | 74            | 61            | 72            |   |   |   |   |   |            |
| 22 | 22659MS    | 75            | 67            | 80            |   |   |   |   |   |            |
| 23 | 22659MSD   | 78            | 65            | 78            |   |   |   |   |   |            |
| 24 |            |               |               |               |   |   |   |   |   |            |
| 25 |            |               |               |               |   |   |   |   |   |            |
| 26 |            |               |               |               |   |   |   |   |   |            |
| 27 |            |               |               |               |   |   |   |   |   |            |
| 28 |            |               |               |               |   |   |   |   |   |            |
| 29 |            |               |               |               |   |   |   |   |   |            |
| 30 |            |               |               |               |   |   |   |   |   |            |

S1 (NBZ) = Nitrobenzene-d5  
S2 (FBP) = 2-Fluorobiphenyl  
S3 (TPH) = Terphenyl-d14

QC LIMITS  
(22-101)  
(20-94)  
(35-127)

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits  
D Surrogate diluted out

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK03

181

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7810.D

Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95

% Moisture: \_\_\_\_\_ decanted: (Y/N): N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               | U    | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               | U    | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               | U    | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               | U    | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               | U    | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               | U    | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               | U    | U |
| 67-72-1   | Hexachloroethane              | 1               | U    | U |
| 98-95-3   | Nitrobenzene                  | 2               | U    | U |
| 78-59-1   | Isophorone                    | 1               | U    | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               | U    | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               | U    | U |
| 91-20-3   | Naphthalene                   | 2               | U    | U |
| 87-68-3   | Hexachlorobutadiene           | 2               | U    | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              | U    | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               | U    | U |
| 131-11-3  | Dimethylphthalate             | 1               | U    | U |
| 208-96-8  | Acenaphthylene                | 5               | U    | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               | U    | U |
| 83-32-9   | Acenaphthene                  | 3               | U    | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               | U    | U |
| 84-66-2   | Diethylphthalate              | 1               | U    | U |
| 86-73-7   | Fluorene                      | 3               | U    | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               | U    | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               | U    | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               | U    | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               | U    | U |
| 118-74-1  | Hexachlorobenzene             | 2               | U    | U |
| 85-01-08  | Phenanthrene                  | 2               | U    | U |
| 120-12-7  | Anthracene                    | 2               | U    | U |
| 84-74-2   | Di-n-butylphthalate           | 5               | U    | U |
| 206-44-0  | Fluoranthene                  | 1               | U    | U |
| 92-87-5   | Benzidine                     | 1               | U    | U |



1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. **183**

**SBLK03**

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7810.D

Level: (low/med) \_\_\_\_\_ Date Received: 5/22/95

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Concentration Units:

Number TICs found: 2 (ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT    | Est. Conc | Q |
|------------|---------------|-------|-----------|---|
| 1.         | Unknown       | 29.86 | 8         | J |
| 2.         | Unknown       | 34.37 | 5         | J |
| 3.         |               |       |           |   |
| 4.         |               |       |           |   |
| 5.         |               |       |           |   |
| 6.         |               |       |           |   |
| 7.         |               |       |           |   |
| 8.         |               |       |           |   |
| 9.         |               |       |           |   |
| 10.        |               |       |           |   |
| 11.        |               |       |           |   |
| 12.        |               |       |           |   |
| 13.        |               |       |           |   |
| 14.        |               |       |           |   |
| 15.        |               |       |           |   |
| 16.        |               |       |           |   |
| 17.        |               |       |           |   |
| 18.        |               |       |           |   |
| 19.        |               |       |           |   |
| 20.        |               |       |           |   |
| 21.        |               |       |           |   |
| 22.        |               |       |           |   |
| 23.        |               |       |           |   |
| 24.        |               |       |           |   |
| 25.        |               |       |           |   |
| 26.        |               |       |           |   |
| 27.        |               |       |           |   |
| 28.        |               |       |           |   |
| 29.        |               |       |           |   |
| 30.        |               |       |           |   |

Data File : c:\hpchem\1\data2\b7810.d

Vial: 9

Acq On : 3 Jun 95 4:06 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 5 15:43 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 31802    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.92 | 136  | 131302   | 40.00 | ug/mL | 0.17     |
| 32) Acenaphthene-d10      | 18.27 | 164  | 86836    | 40.00 | ug/mL | 0.22     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 142609   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.88 | 240  | 151919   | 40.00 | ug/mL | 0.30     |
| 73) Perylene-d12          | 34.91 | 264  | 122270   | 40.00 | ug/mL | 0.31     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.62  | 112 | 39963  | 44.43 | ug/mL | 44.43%    |
| 3) Phenol-d5                | 8.53  | 99  | 41380  | 27.79 | ug/mL | 27.79%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 101686 | 67.97 | ug/mL | 67.97%    |
| 36) 2-Fluorobiphenyl        | 16.40 | 172 | 173985 | 66.80 | ug/mL | 66.80%    |
| 54) 2,4,6-Tribromophenol    | 20.69 | 330 | 34408  | 89.34 | ug/mL | 89.34%    |
| 67) Terphenyl-d14           | 27.95 | 244 | 360667 | 89.45 | ug/mL | 89.45%    |

Target Compounds

Qvalue

-----  
(#) = qualifier out of range (m) = manual integration

b7810.d BNACLP.M

Mon Jun 05 16:17:06 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7810.d

Vial: 9

Acq On : 3 Jun 95 4:06 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

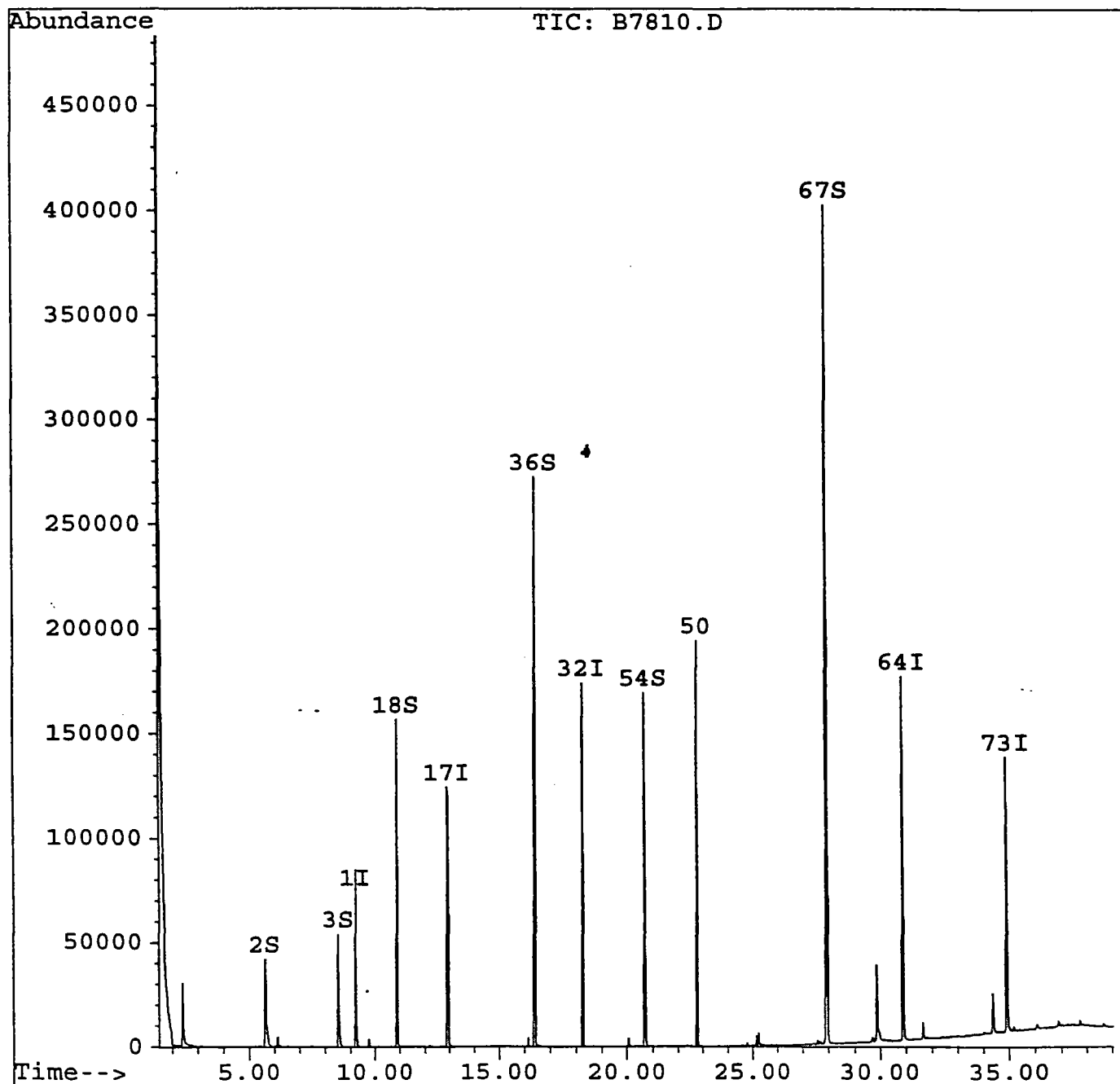
Quant Time: Jun 5 15:43 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7810.d

Vial: 9

Acq On : 3 Jun 95 4:06 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

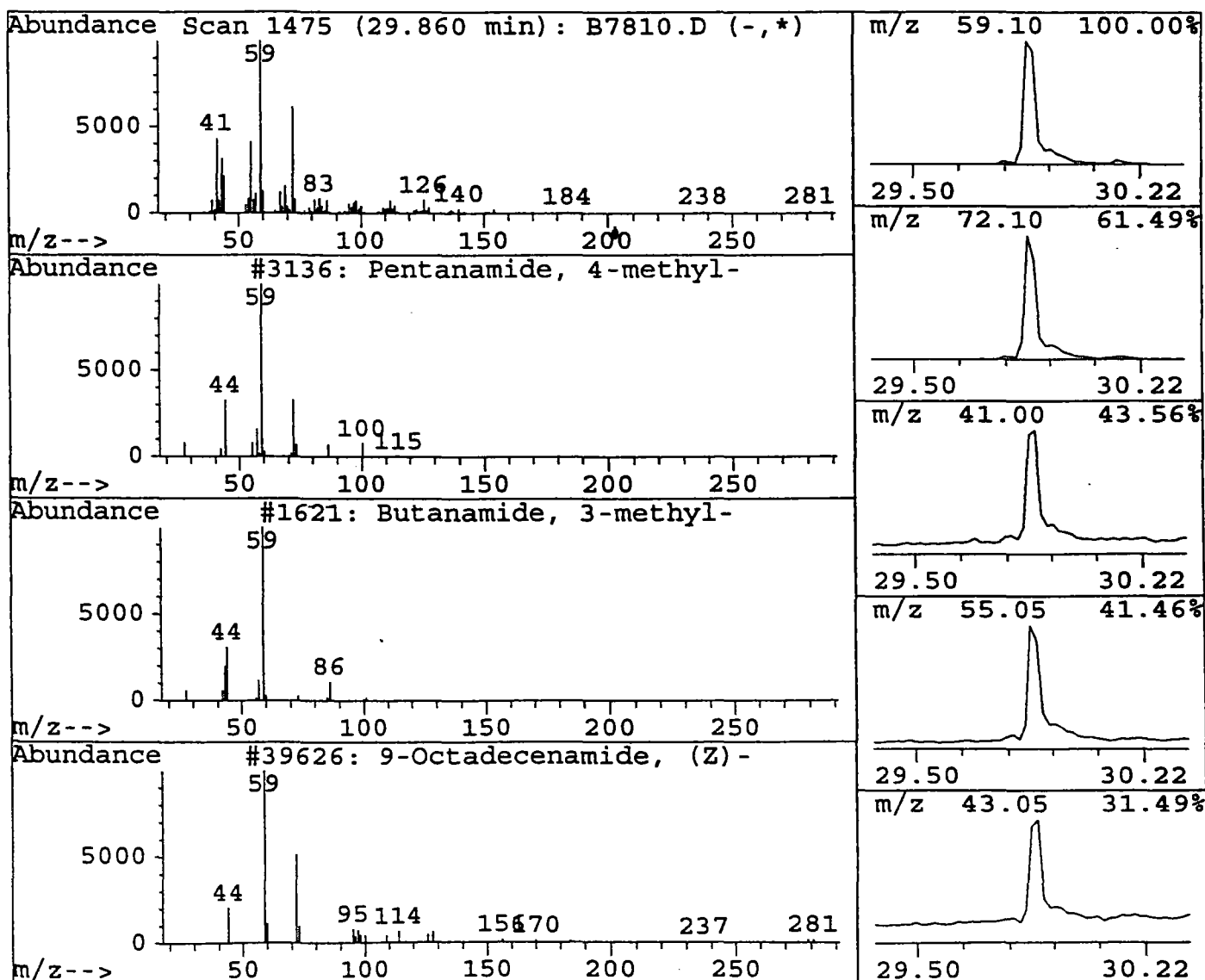
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 29.86 | 8.47 ug/ml | 96921 | Chrysene-d12     | 30.88 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Pentanamide, 4-methyl-              | 3136  | 001119-29-5 | 50   |
| 2          | Butanamide, 3-methyl-               | 1621  | 000541-46-8 | 47   |
| 3          | 9-Octadecenamide, (Z)-              | 39626 | 000301-02-0 | 43   |
| 4          | 2,3-Dimethyl-4-penten-2-ol          | 3046  | 019781-52-3 | 38   |
| 5          | Hydrazine, 1,1-dimethyl-2-(1-methyl | 5486  | 075267-97-9 | 38   |



Data File : c:\hpchem\1\data2\b7810.d

Vial: 9

Acq On : 3 Jun 95 4:06 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

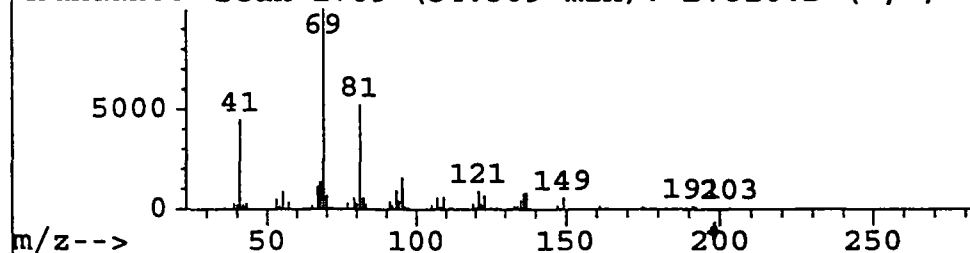
Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

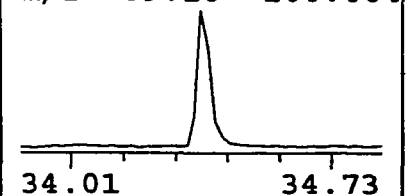
| R.T.  | Conc       | Area  | Relative to ISTD | R.T.  |
|-------|------------|-------|------------------|-------|
| 34.37 | 5.41 ug/ml | 50573 | Perylene-d12     | 34.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | 2,6,10-Dodecatrien-1-ol, 3,7,11-tri | 28243 | 004602-84-0 | 64   |
| 2          | (E,E)-7,11,15-Trimethyl-3-methylene | 38200 | 070901-63-2 | 56   |
| 3          | 3,7,11-Tridecatrienitrile, 4,8,12   | 30165 | 006006-01-5 | 56   |
| 4          | 1,6-Octadiene, 3,5-dimethyl-, cis-  | 7016  | 000000-00-0 | 53   |
| 5          | 2,6-Octadien-1-ol, 3,7-dimethyl-, ( | 67079 | 000106-25-2 | 53   |

Abundance Scan 1709 (34.369 min): B7810.D (-,\*)

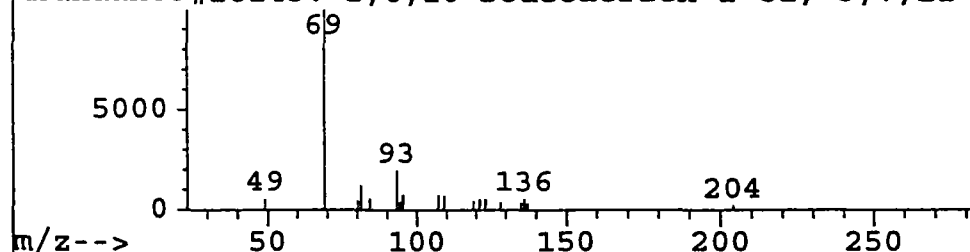


m/z 69.10 100.00%



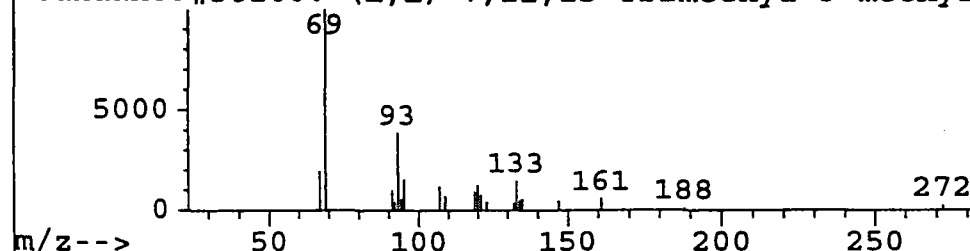
m/z 81.10 52.44%

Abundance#28243: 2,6,10-Dodecatrien-1-ol, 3,7,11-



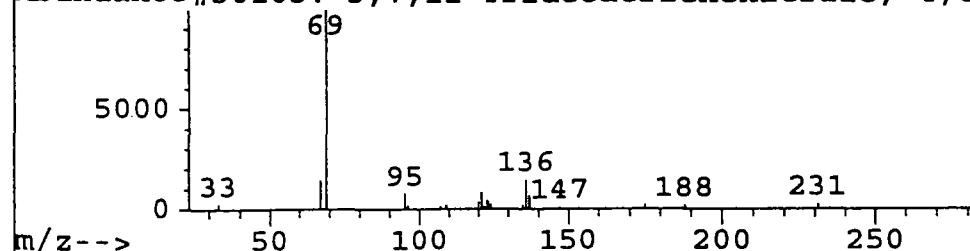
m/z 41.00 45.10%

Abundance#38200: (E,E)-7,11,15-Trimethyl-3-methyl



m/z 95.10 15.70%

Abundance#30165: 3,7,11-Tridecatrienitrile, 4,8



m/z 68.05 13.60%



4B  
SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 188

SBLK05

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: B7825.D Lab Sample ID: BLANK5

Instrument ID: ABNA Date Extracted: 5/23/95

Matrix: (soil/water) WATER Date Analyzed: 6/4/95

Level: (low/med) \_\_\_\_\_ Time Analyzed: 0435

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 22654MS    | 22654MS          | B7826.D        | 06/04/95         |
| 02 | 22654MSD   | 22654MSD         | B7827.D        | 06/04/95         |
| 03 | 22659MS    | 22659MS          | B7828.D        | 06/04/95         |
| 04 | 22659MSD   | 22659MSD         | B7829.D        | 06/04/95         |
| 05 |            |                  |                |                  |
| 06 |            |                  |                |                  |
| 07 |            |                  |                |                  |
| 08 |            |                  |                |                  |
| 09 |            |                  |                |                  |
| 10 |            |                  |                |                  |
| 11 |            |                  |                |                  |
| 12 |            |                  |                |                  |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. **189**

**SBLK05**

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7825.D

Level: (low/med) \_\_\_\_\_ Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 62-75-9   | N-nitrosodimethylamine      | 2                    | U    |
| 108-95-2  | Phenol                      | 2                    | U    |
| 111-44-4  | bis(2-Chloroethyl)ether     | 1                    | U    |
| 95-57-8   | 2-Chlorophenol              | 2                    | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | 2                    | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | 1                    | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | 2                    | U    |
| 108-60-1  | bis(2-chloroisopropyl)ether | 5                    | U    |
| 621-64-7  | N-Nitroso-Di-n-propylamine  | 2                    | U    |
| 67-72-1   | Hexachloroethane            | 1                    | U    |
| 98-95-3   | Nitrobenzene                | 2                    | U    |
| 78-59-1   | Isophorone                  | 1                    | U    |
| 88-75-5   | 2-Nitrophenol               | 3                    | U    |
| 105-67-9  | 2,4-Dimethylphenol          | 3                    | U    |
| 111-91-1  | bis(2-Chloroethoxy)methane  | 3                    | U    |
| 120-83-2  | 2,4-Dichlorophenol          | 3                    | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | 2                    | U    |
| 91-20-3   | Naphthalene                 | 2                    | U    |
| 87-68-3   | Hexachlorobutadiene         | 2                    | U    |
| 59-50-7   | 4-Chloro-3-methylphenol     | 3                    | U    |
| 77-47-4   | Hexachlorocyclopentadiene   | 12                   | U    |
| 88-06-2   | 2,4,6-Trichlorophenol       | 3                    | U    |
| 91-58-7   | 2-Chloronaphthalene         | 1                    | U    |
| 131-11-3  | Dimethylphthalate           | 1                    | U    |
| 208-96-8  | Acenaphthylene              | 5                    | U    |
| 606-20-2  | 2,6-Dinitrotoluene          | 2                    | U    |
| 83-32-9   | Acenaphthene                | 3                    | U    |
| 51-28-5   | 2,4-Dinitrophenol           | 24                   | U    |
| 100-02-7  | 4-Nitrophenol               | 21                   | U    |
| 121-14-2  | 2,4-Dinitrotoluene          | 3                    | U    |
| 84-66-2   | Diethylphthalate            | 1                    | U    |
| 86-73-7   | Fluorene                    | 3                    | U    |
| 7005-72-3 | 4-Chlorophenyl-phenylether  | 3                    | U    |

3/90

## Quantitation Report

191

Data File : c:\hpchem\1\data2\b7825.d Vial: 24  
Acq On : 4 Jun 95 4:35 am Operator: SCOTTV  
Sample : BLANK.,..... Converted from RTE d Inst : ABNA  
Misc : BT Multiplr: 1.00  
Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M  
Title : CLP BNA Calibration  
Last Update : Wed May 31 10:06:36 1995  
Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 43303    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.92 | 136  | 177127   | 40.00 | ug/mL | 0.17     |
| 32) Acenaphthene-d10      | 18.27 | 164  | 122916   | 40.00 | ug/mL | 0.22     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 199698   | 40.00 | ug/mL | 0.26     |
| 64) Chrysene-d12          | 30.88 | 240  | 216974   | 40.00 | ug/mL | 0.30     |
| 73) Perylene-d12          | 34.91 | 264  | 174620   | 40.00 | ug/mL | 0.31     |

| System Monitoring Compounds |       |     |        |             | %Recovery |
|-----------------------------|-------|-----|--------|-------------|-----------|
| 2) 2-Fluorophenol           | 5.64  | 112 | 78262  | 63.90 ug/mL | 63.90%    |
| 3) Phenol-d5                | 8.53  | 99  | 133633 | 65.92 ug/mL | 65.92%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 114709 | 56.84 ug/mL | 56.84%    |
| 36) 2-Fluorobiphenyl        | 16.40 | 172 | 202657 | 54.96 ug/mL | 54.96%    |
| 54) 2,4,6-Tribromophenol    | 20.70 | 330 | 47874  | 88.77 ug/mL | 88.77%    |
| 67) Terphenyl-d14           | 27.93 | 244 | 363044 | 63.04 ug/mL | 63.04%    |

Target Compounds

Qvalue

4

-----  
(#) = qualifier out of range (m) = manual integration

b7825.d BNACLP.M

Mon Jun 05 16:42:11 1995

BNA

Page 1

# Quantitation Report

192

Data File : c:\hpchem\1\data2\b7825.d

Acq On : 4 Jun 95 4:35 am

Sample : BLANK.....

Misc :

Quant Time: Jun 5 16:06 1995

Vial: 24

Operator: SCOTTV

Converted from RTE d Inst : ABNA

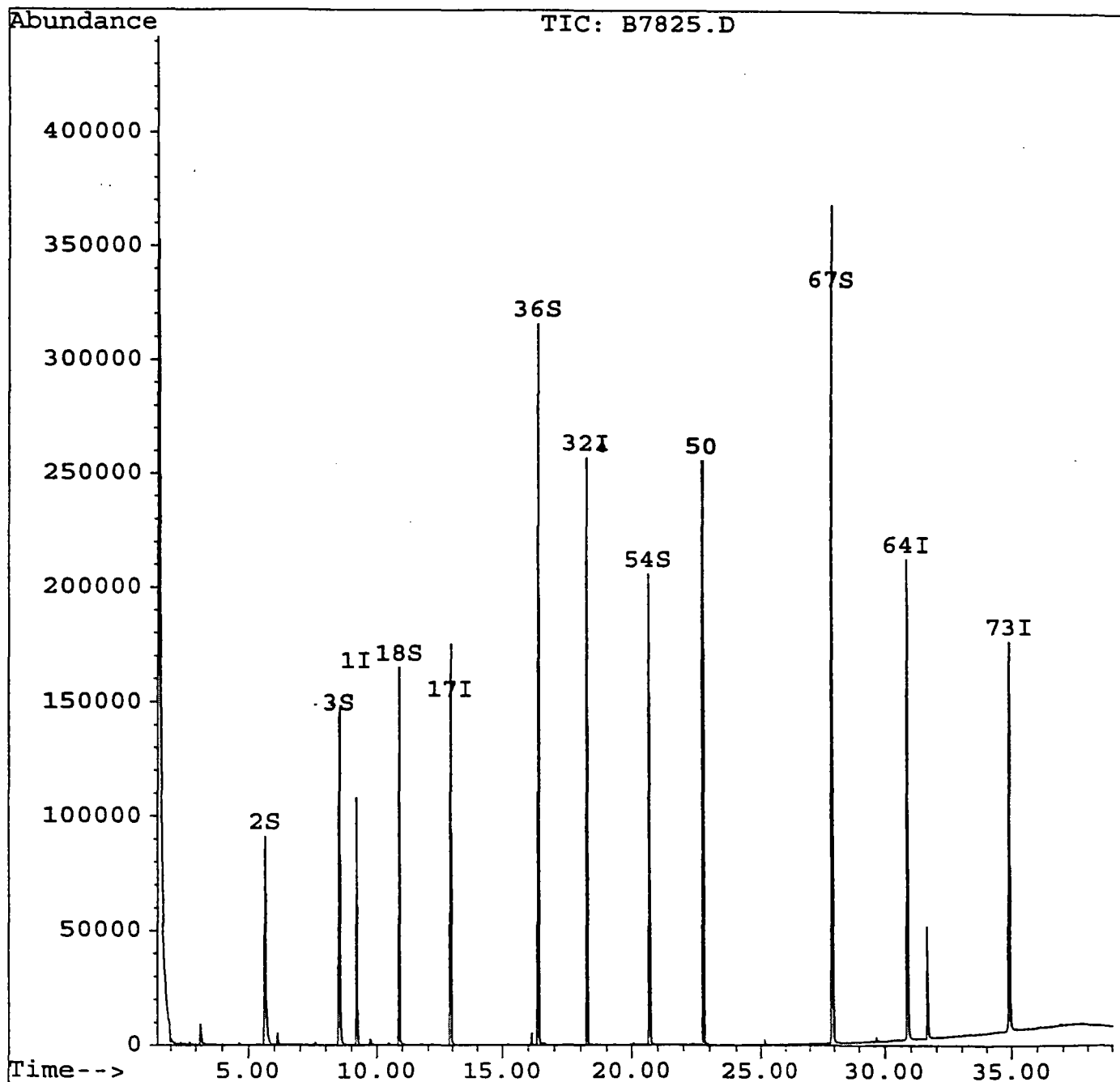
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 10:06:36 1995  
 Response via : Initial Calibration

Non-Spiked Sample: B7742.D

Spike  
Sample

Spike  
Duplicate Sample

File ID : B7826.D | B7827.D  
 Sample : 22654MS..... Converted from RTE data file >B7826::D5

| Compound             | Sample<br>Conc | Spike<br>Added | Spike<br>Res | Dup<br>Res | Spike<br>%Rec | Dup<br>%Rec | RPD | QC<br>RPD | Limits<br>% Rec |
|----------------------|----------------|----------------|--------------|------------|---------------|-------------|-----|-----------|-----------------|
| N-nitrosodimethylami | 0.0            | 100            | 108          | 91         | 108           | 91          | 17  | 100       | 1-300           |
| Phenol               | 0.0            | 100            | 69           | 64         | 69            | 64          | 7   | 23        | 5-112           |
| bis(2-Chloroethyl)et | 0.0            | 100            | 77           | 68         | 77            | 68          | 13  | 55        | 12-158          |
| 2-Chlorophenol       | 0.0            | 100            | 76           | 67         | 76            | 67          | 13  | 29        | 23-134          |
| 1,3-Dichlorobenzene  | 0.0            | 100            | 57           | 50         | 57            | 50          | 14  | 42        | 1-172           |
| 1,4-Dichlorobenzene  | 0.0            | 100            | 58           | 51         | 58            | 51          | 13  | 32        | 20-124          |
| 1,2-Dichlorobenzene  | 0.0            | 100            | 62           | 53         | 62            | 53          | 15  | 31        | 32-129          |
| bis(2-chloroisopropy | 0.0            | 100            | 134          | 118        | 134           | 118         | 13  | 46        | 36-166          |
| N-Nitroso-Di-n-propy | 0.0            | 100            | 78           | 66         | 78            | 66          | 16  | 55        | 1-230           |
| Hexachloroethane     | 0.0            | 100            | 50           | 42         | 50            | 42          | 18  | 25        | 40-113          |
| Nitrobenzene         | 0.2            | 100            | 84           | 71         | 83            | 71          | 17  | 39        | 35-180          |
| Isophorone           | 0.0            | 100            | 70           | 59         | 70            | 59          | 17  | 63        | 21-196          |
| 2-Nitrophenol        | 0.0            | 100            | 79           | 65         | 79            | 65          | 19  | 35        | 29-182          |
| 2,4-Dimethylphenol   | 0.0            | 100            | 43           | 40         | 43            | 40          | 7   | 26        | 32-119          |
| bis(2-Chloroethoxy)m | 0.0            | 100            | 58           | 49         | 58            | 49          | 18  | 35        | 33-184          |
| 2,4-Dichlorophenol   | 0.0            | 100            | 79           | 67         | 79            | 67          | 16  | 26        | 39-135          |
| 1,2,4-Trichlorobenze | 0.0            | 100            | 67           | 59         | 67            | 59          | 13  | 28        | 44-142          |
| Naphthalene          | 0.0            | 100            | 71           | 61         | 71            | 61          | 15  | 30        | 21-133          |
| Hexachlorobutadiene  | 0.0            | 100            | 55           | 49         | 55            | 49          | 11  | 26        | 24-116          |
| 4-Chloro-3-methylphe | 0.0            | 100            | 73           | 63         | 73            | 63          | 15  | 37        | 22-147          |
| 2-Chloronaphthalene  | 0.0            | 100            | 77           | 68         | 77            | 68          | 12  | 13        | 60-118          |
| 2,4,6-Trichloropheno | 0.0            | 100            | 57           | 52         | 57            | 52          | 8   | 32        | 37-144          |
| Dimethylphthalate    | 0.0            | 100            | 44           | 35         | 44            | 35          | 22  | 23        | 1-112           |
| Acenaphthylene       | 0.0            | 100            | 56           | 50         | 56            | 50          | 12  | 40        | 33-145          |
| 2,6-Dinitrotoluene   | 0.0            | 100            | 73           | 71         | 73            | 71          | 3   | 30        | 50-158          |
| Acenaphthene         | 0.0            | 100            | 77           | 71         | 77            | 71          | 8   | 28        | 47-145          |
| 2,4-Dinitrophenol    | 0.0            | 100            | 68           | 65         | 68            | 65          | 4   | 50        | 1-191           |
| 4-Nitrophenol        | 0.5            | 100            | 76           | 70         | 76            | 70          | 8   | 47        | 1-132           |
| 2,4-Dinitrotoluene   | 0.0            | 100            | 75           | 68         | 75            | 68          | 9   | 22        | 39-139          |
| Diethylphthalate     | 0.1            | 100            | 47           | 41         | 47            | 41          | 15  | 27        | 1-114           |
| Fluorene             | 0.9            | 100            | 75           | 69         | 74            | 68          | 9   | 21        | 59-121          |
| 4-Chlorophenyl-pheny | 0.0            | 100            | 77           | 69         | 77            | 69          | 11  | 33        | 25-158          |
| 4,6-Dinitro-2-methyl | 0.0            | 100            | 76           | 70         | 76            | 70          | 8   | 93        | 1-181           |
| 4-Bromophenyl-phenyl | 0.0            | 100            | 78           | 72         | 78            | 72          | 8   | 23        | 53-127          |
| Hexachlorobenzene    | 0.0            | 100            | 90           | 82         | 90            | 82          | 10  | 25        | 1-152           |
| Pentachlorophenol    | 0.0            | 100            | 100          | 93         | 100           | 93          | 7   | 49        | 14-176          |
| Phenanthrene         | 0.0            | 100            | 81           | 75         | 81            | 75          | 9   | 21        | 54-120          |
| Anthracene           | 0.0            | 100            | 96           | 83         | 96            | 83          | 14  | 32        | 52-115          |
| Di-n-butylphthalate  | 0.2            | 100            | 77           | 71         | 77            | 71          | 8   | 17        | 1-118           |
| Fluoranthene         | 0.0            | 100            | 95           | 88         | 95            | 88          | 8   | 33        | 26-137          |
| Pyrene               | 0.0            | 100            | 68           | 65         | 68            | 65          | 5   | 25        | 52-115          |
| Butylbenzylphthalate | 0.3            | 100            | 65           | 58         | 64            | 57          | 12  | 23        | 1-152           |
| Benzo[a]anthracene   | 0.1            | 100            | 65           | 58         | 65            | 58          | 11  | 28        | 33-143          |
| 3,3'-Dichlorobenzidi | 0.0            | 100            | 81           | 74         | 81            | 74          | 9   | 71        | 1-262           |

|                       |     |     |     |     |     |     |    |    |        |     |
|-----------------------|-----|-----|-----|-----|-----|-----|----|----|--------|-----|
| Chrysene              | 0.1 | 100 | 118 | 106 | 118 | 106 | 10 | 48 | 17-168 | 194 |
| is (2-Ethylhexyl) pht | 0.4 | 100 | 71  | 63  | 71  | 62  | 13 | 41 | 8-158  |     |
| Di-n-octylphthalate   | 0.0 | 100 | 67  | 59  | 67  | 59  | 13 | 31 | 4-146  |     |
| Benzo[b]fluoranthene  | 0.0 | 100 | 53  | 48  | 53  | 48  | 11 | 39 | 24-159 |     |
| Benzo[k]fluoranthene  | 0.1 | 100 | 108 | 99  | 108 | 99  | 8  | 32 | 11-162 |     |
| Benzo[a]pyrene        | 0.1 | 100 | 101 | 90  | 101 | 90  | 12 | 39 | 17-163 |     |
| Indeno[1,2,3-cd]pyre  | 0.0 | 100 | 42  | 38  | 42  | 38  | 10 | 45 | 1-171  |     |
| Dibenz[a,h]anthracen  | 0.0 | 100 | 47  | 50  | 47  | 50  | 5  | 70 | 1-227  |     |
| Benzo[g,h,i]perylene  | 0.0 | 100 | 54  | 48  | 54  | 48  | 11 | 59 | 1-219  |     |

BNACLP.M

Tue Jun 13 13:08:56 1995

BNA

Data File : c:\hpcchem\1\data2\b7826.d

Acq On : 4 Jun 95 5:25 am

Sample : 22654MS.....

Misc :

Quant Time: Jun 13 13:06 1995

Vial: 25

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 33780    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 129967   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 93254    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 155903   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.91 | 240  | 148922   | 40.00 | ug/mL | 0.33     |
| 73) Perylene-d12          | 34.91 | 264  | 65345    | 40.00 | ug/mL | 0.31     |

| System Monitoring Compounds |       |     |        |        |       | %Recovery |
|-----------------------------|-------|-----|--------|--------|-------|-----------|
| 2) 2-Fluorophenol           | 5.66  | 112 | 86730  | 90.77  | ug/mL | 90.77%    |
| 3) Phenol-d5                | 8.57  | 99  | 147096 | 93.02  | ug/mL | 93.02%    |
| 18) Nitrobenzene-d5         | 10.90 | 82  | 134034 | 90.52  | ug/mL | 90.52%    |
| 36) 2-Fluorobiphenyl        | 16.41 | 172 | 175522 | 62.75  | ug/mL | 62.75%    |
| 54) 2,4,6-Tribromophenol    | 20.71 | 330 | 46665  | 110.83 | ug/mL | 110.83%   |
| 67) Terphenyl-d14           | 27.94 | 244 | 322279 | 81.53  | ug/mL | 81.53%    |

| Target Compounds                |       |     |        |        |        | Qvalue |
|---------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 2.43  | 74  | 52801  | 108.13 | ug/mlm | 0      |
| 5) Pyridine                     | 1.58  | 79  | 3052   | 8.44   | ug/mL  | 100    |
| 6) Phenol                       | 8.61  | 94  | 97169  | 68.99  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.61 | 93  | 132335 | 77.35  | ug/mL  | 96     |
| 8) 2-Chlorophenol               | 8.63  | 128 | 81945  | 76.45  | ug/mL  | 90     |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146 | 66629  | 56.96  | ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146 | 69858  | 57.89  | ug/mL  | 100    |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146 | 70561  | 61.55  | ug/mL  | 98     |
| 13) bis(2-chloroisopropyl) ethe | 10.30 | 45  | 211229 | 133.86 | ug/mL# | 65     |
| 15) N-Nitroso-Di-n-propylamine  | 10.69 | 70  | 88152  | 77.56  | ug/mL  | 95     |
| 16) Hexachloroethane            | 10.61 | 117 | 31123  | 49.97  | ug/mL  | 89     |
| 19) Nitrobenzene                | 10.96 | 77  | 115194 | 83.63  | ug/mL# | 85     |
| 20) Isophorone                  | 11.75 | 82  | 203312 | 70.04  | ug/mL  | 98     |
| 21) 2-Nitrophenol               | 11.88 | 139 | 53977  | 78.97  | ug/mL# | 85     |
| 22) 2,4-Dimethylphenol          | 12.33 | 107 | 55100  | 43.09  | ug/mLm | 1      |
| 23) bis(2-Chloroethoxy) methane | 8.72  | 93  | 86556  | 58.41  | ug/mL  | 98     |
| 24) 2,4-Dichlorophenol          | 12.67 | 162 | 76577  | 79.05  | ug/mL  | 98     |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180 | 68935  | 66.95  | ug/mL  | 98     |
| 26) Naphthalene                 | 13.00 | 128 | 225507 | 70.91  | ug/mL# | 90     |
| 27) 4-Chloroaniline             | 13.00 | 127 | 28186  | 18.73  | ug/mL# | 1      |
| 28) Hexachlorobutadiene         | 13.52 | 225 | 33083  | 55.03  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107 | 91543  | 73.39  | ug/mL  | 95     |
| 30) 2-Chloronaphthalene         | 16.60 | 162 | 173185 | 76.58  | ug/mlm | 95     |
| 31) 2-Methylnaphthalene         | 15.04 | 142 | 68690  | 26.91  | ug/mL# | 18     |
| 34) 2,4,6-Trichlorophenol       | 16.12 | 196 | 54836  | 56.62  | ug/mL  | 98     |
| 35) 2,4,5-Trichlorophenol       | 16.12 | 196 | 54836  | 72.58  | ug/mL  | 98     |
| 37) 2-Nitroaniline              | 17.93 | 65  | 3806   | 2.97   | ug/mL# | 100    |
| 38) Dimethylphthalate           | 17.83 | 163 | 132688 | 43.80  | ug/mL  | 100    |

(#)=qualifier out of range (m)=manual integration

b7826.d BNACLP.M

Tue Jun 13 13:09:53 1995

BNA

Page 1



Data File : c:\hpchem\1\data2\b7826.d

Vial: 25

Acq On : 4 Jun 95 5:25 am

Operator: SCOTTV

Sample : 22654MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 221369   | 55.71  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 52674    | 72.83  | ug/mL  | 98     |
| 42) Acenaphthene               | 18.37 | 153  | 184037   | 77.01  | ug/mL  | 98     |
| 43) 2,4-Dinitrophenol          | 18.68 | 184  | 27438    | 68.35  | ug/mL# | 82     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 29448    | 76.25  | ug/mL  | 93     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 203714   | 74.87  | ug/mL# | 33     |
| 47) Diethylphthalate           | 20.07 | 149  | 159610   | 47.45  | ug/mL  | 100    |
| 48) Fluorene                   | 19.97 | 166  | 219880   | 74.92  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 106703   | 76.76  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2333     | 3.60   | ug/mL# | 26     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 38799    | 75.54  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.57 | 169  | 120798   | 60.97  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 341255   | 72.29  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 63010    | 78.44  | ug/mL  | 93     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 75708    | 90.48  | ug/mL# | 81     |
| 58) Pentachlorophenol          | 22.31 | 266  | 53483    | 99.80  | ug/mL  | 98     |
| 59) Phenanthrene               | 22.87 | 178  | 347261   | 81.41  | ug/mL  | 99     |
| 60) Anthracene                 | 22.87 | 178  | 375780   | 95.56  | ug/mL  | 98     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 485216   | 77.50  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.13 | 202  | 383198   | 95.00  | ug/mL  | 95     |
| 65) Benzidine                  | 27.15 | 184  | 31355    | 19.25  | ug/ml  | 100    |
| 66) Pyrene                     | 27.13 | 202  | 382718   | 68.46  | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 231108   | 64.56  | ug/mL  | 98     |
| 69) Benzo[a]anthracene         | 30.89 | 228  | 364541   | 64.61  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.03 | 252  | 116175   | 80.76  | ug/mL  | 99     |
| 71) Chrysene                   | 30.89 | 228  | 369164   | 117.64 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 362642   | 71.41  | ug/mL  | 98     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 561704   | 67.50  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.94 | 252  | 214943   | 53.34  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 33.94 | 252  | 210450   | 108.25 | ug/mL  | 91     |
| 77) Benzo[a]pyrene             | 34.04 | 252  | 202935   | 101.27 | ug/mL  | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.41 | 276  | 31241    | 42.27  | ug/mL# | 76     |
| 79) Dibenz[a,h]anthracene      | 37.53 | 278  | 33601    | 47.21  | ug/mL# | 91     |
| 80) Benzo[g,h,i]perylene       | 37.41 | 276  | 31328    | 53.91  | ug/mL# | 91     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

197

Data File : c:\hpchem\1\data2\b7826.d

Acq On : 4 Jun 95 5:25 am

Sample : 22654MS.....

Misc :

Quant Time: Jun 13 13:06 1995

Vial: 25

Operator: SCOTTV

Converted from RTE d Inst : ABNA

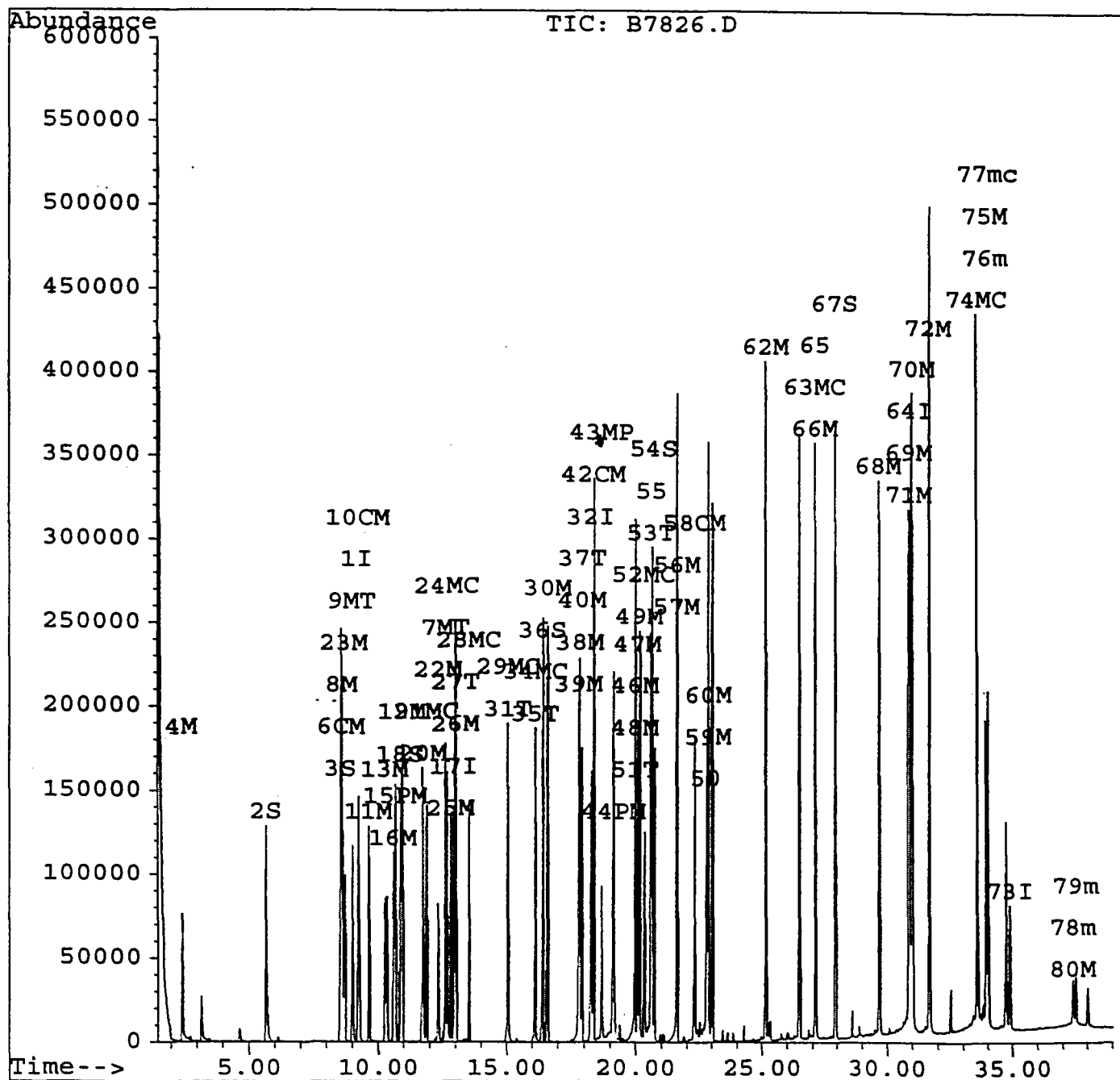
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



## Quantitation Report

198

Data File : c:\hpchem\1\data2\b7827.d

Vial: 26

Acq On : 4 Jun 95 6:15 am

Operator: SCOTTV

Sample : 22654MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 35303    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 144937   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 99611    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 164759   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.91 | 240  | 152801   | 40.00 | ug/mL | 0.33     |
| 73) Perylene-d12          | 34.91 | 264  | 66464    | 40.00 | ug/mL | 0.31     |

| System Monitoring Compounds |       |     |        |              | %Recovery |
|-----------------------------|-------|-----|--------|--------------|-----------|
| 2) 2-Fluorophenol           | 5.66  | 112 | 82094  | 82.21 ug/mL  | 82.21%    |
| 3) Phenol-d5                | 8.57  | 99  | 140345 | 84.92 ug/mL  | 84.92%    |
| 18) Nitrobenzene-d5         | 10.90 | 82  | 122579 | 74.23 ug/mL  | 74.23%    |
| 36) 2-Fluorobiphenyl        | 16.41 | 172 | 181198 | 60.64 ug/mL  | 60.64%    |
| 54) 2,4,6-Tribromophenol    | 20.71 | 330 | 47406  | 106.54 ug/mL | 106.54%   |
| 67) Terphenyl-d14           | 27.94 | 244 | 291235 | 71.81 ug/mL  | 71.81%    |

| Target Compounds               |       |     |        |               | Qvalue |
|--------------------------------|-------|-----|--------|---------------|--------|
| 4) N-nitrosodimethylamine      | 2.43  | 74  | 46421  | 90.97 ug/mlm  | 100    |
| 5) Pyridine                    | 1.58  | 79  | 3239   | 8.57 ug/mL    | 100    |
| 6) Phenol                      | 8.61  | 94  | 94440  | 64.16 ug/mL   | 100    |
| 7) bis(2-Chloroethyl)ether     | 12.59 | 93  | 122019 | 68.25 ug/mL   | 93     |
| 8) 2-Chlorophenol              | 8.63  | 128 | 74868  | 66.83 ug/mL#  | 87     |
| 9) 1,3-Dichlorobenzene         | 9.01  | 146 | 60664  | 49.63 ug/mL   | 97     |
| 10) 1,4-Dichlorobenzene        | 9.26  | 146 | 63929  | 50.69 ug/mL   | 97     |
| 11) 1,2-Dichlorobenzene        | 9.65  | 146 | 63514  | 53.01 ug/mL   | 98     |
| 13) bis(2-chloroisopropyl)ethe | 10.26 | 45  | 194225 | 117.78 ug/mL# | 64     |
| 15) N-Nitroso-Di-n-propylamine | 10.67 | 70  | 78184  | 65.82 ug/mL   | 99     |
| 16) Hexachloroethane           | 10.61 | 117 | 27204  | 41.80 ug/mL   | 93     |
| 19) Nitrobenzene               | 10.96 | 77  | 108893 | 70.89 ug/mL   | 92     |
| 20) Isophorone                 | 11.75 | 82  | 190833 | 58.95 ug/mL   | 99     |
| 21) 2-Nitrophenol              | 11.88 | 139 | 49518  | 64.97 ug/mL#  | 85     |
| 22) 2,4-Dimethylphenol         | 12.33 | 107 | 57269  | 40.16 ug/mLm  | 1      |
| 23) bis(2-Chloroethoxy)methane | 8.72  | 93  | 80511  | 48.72 ug/mL   | 99     |
| 24) 2,4-Dichlorophenol         | 12.67 | 162 | 72662  | 67.26 ug/mL   | 99     |
| 25) 1,2,4-Trichlorobenzene     | 12.83 | 180 | 67428  | 58.72 ug/mL   | 99     |
| 26) Naphthalene                | 13.00 | 128 | 216145 | 60.94 ug/mL#  | 91     |
| 27) 4-Chloroaniline            | 13.00 | 127 | 27276  | 16.26 ug/mL#  | 4      |
| 28) Hexachlorobutadiene        | 13.52 | 225 | 33024  | 49.25 ug/mL   | 99     |
| 29) 4-Chloro-3-methylphenol    | 15.04 | 107 | 87494  | 62.90 ug/mL   | 94     |
| 30) 2-Chloronaphthalene        | 16.58 | 162 | 170492 | 67.60 ug/mL   | 97     |
| 31) 2-Methylnaphthalene        | 15.04 | 142 | 66426  | 23.33 ug/mL#  | 18     |
| 34) 2,4,6-Trichlorophenol      | 16.12 | 196 | 53903  | 52.11 ug/mL   | 99     |
| 35) 2,4,5-Trichlorophenol      | 16.12 | 196 | 53903  | 66.79 ug/mL   | 99     |
| 37) 2-Nitroaniline             | 17.93 | 65  | 3941   | 2.88 ug/mL#   | 100    |
| 38) Dimethylphthalate          | 17.83 | 163 | 113606 | 35.11 ug/mL   | 99     |

(#)=qualifier out of range (m)=manual integration

b7827.d BNACLP.M

Tue Jun 13 13:10:49 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7827.d

Vial: 26

Acq On : 4 Jun 95 6:15 am

Operator: SCOTTV

Sample : 22654MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 210414   | 49.57  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 54747    | 70.87  | ug/mL  | 92     |
| 42) Acenaphthene               | 18.37 | 153  | 181623   | 71.15  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.68 | 184  | 28083    | 65.49  | ug/mL# | 78     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 28931    | 70.14  | ug/mL  | 91     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 198956   | 68.45  | ug/mL# | 33     |
| 47) Diethylphthalate           | 20.07 | 149  | 146204   | 40.69  | ug/mL  | 99     |
| 48) Fluorene                   | 19.97 | 166  | 215505   | 68.74  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 102158   | 68.80  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2275     | 3.32   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 38003    | 70.01  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.57 | 169  | 120181   | 57.40  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 326407   | 65.42  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 61314    | 72.23  | ug/mL  | 92     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 72489    | 81.98  | ug/mL# | 80     |
| 58) Pentachlorophenol          | 22.31 | 266  | 52714    | 93.08  | ug/mL  | 99     |
| 59) Phenanthrene               | 22.87 | 178  | 336724   | 74.69  | ug/mL  | 98     |
| 60) Anthracene                 | 22.87 | 178  | 345412   | 83.11  | ug/mL  | 97     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 472693   | 71.44  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.13 | 202  | 375315   | 88.04  | ug/mL  | 93     |
| 65) Benzidine                  | 27.15 | 184  | 42901    | 25.67  | ug/ml  | 100    |
| 66) Pyrene                     | 27.13 | 202  | 374572   | 65.30  | ug/mL# | 88     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 211242   | 57.51  | ug/mL  | 99     |
| 69) Benzo[a]anthracene         | 30.87 | 228  | 336521   | 58.13  | ug/mL  | 100    |
| 70) 3,3'-Dichlorobenzidine     | 31.03 | 252  | 109427   | 74.14  | ug/mL# | 96     |
| 71) Chrysene                   | 30.87 | 228  | 341333   | 106.01 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 327633   | 62.88  | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 500739   | 59.16  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.94 | 252  | 196612   | 47.97  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 33.94 | 252  | 196612   | 99.43  | ug/mL  | 93     |
| 77) Benzo[a]pyrene             | 33.94 | 252  | 182768   | 89.67  | ug/mL  | 100    |
| 78) Indeno[1,2,3-cd]pyrene     | 37.41 | 276  | 28662    | 38.13  | ug/mL# | 78     |
| 79) Dibenz[a,h]anthracene      | 37.53 | 278  | 36034    | 49.77  | ug/mL# | 92     |
| 80) Benzo[g,h,i]perylene       | 37.41 | 276  | 28604    | 48.40  | ug/mL  | 93     |

(#) = qualifier out of range (m) = manual integration

Data File : c:\hpchem\1\data2\b7827.d

Vial: 26 200

Acq On : 4 Jun 95 6:15 am

Operator: SCOTTV

Sample : 22654MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

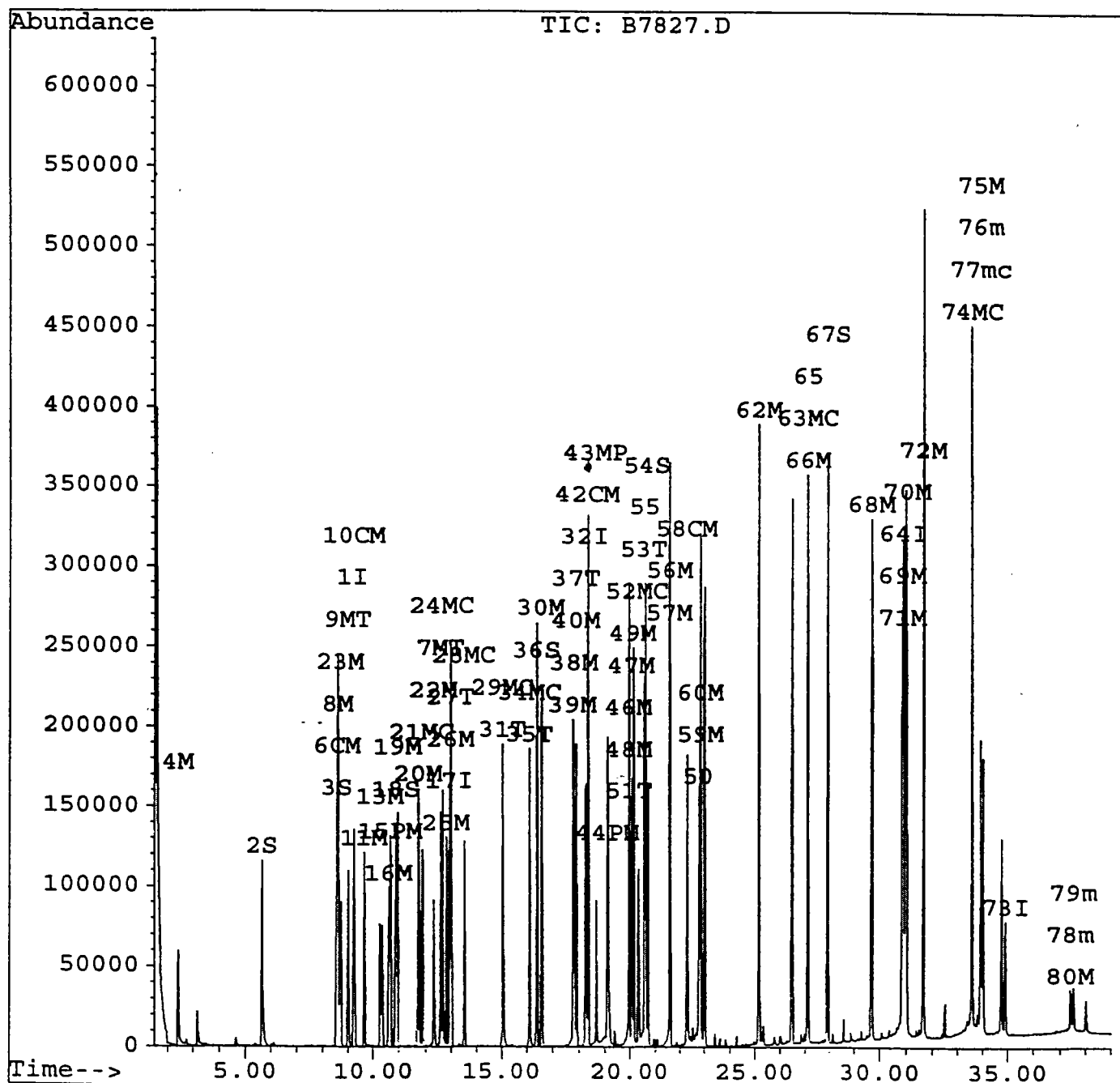
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 10:06:36 1995  
 Response via : Initial Calibration

Non-Spiked Sample: B7741.D

Spike  
Sample

Spike  
Duplicate Sample

File ID : B7828.D | B7829.D  
 Sample : 22659MS..... Converted from RTE data file >B7828::D5

| Compound             | Sample<br>Conc | Spike<br>Added | Spike<br>Res | Dup<br>Res | Spike<br>%Rec | Dup<br>%Rec | RPD | QC Limits<br>RPD % Rec |
|----------------------|----------------|----------------|--------------|------------|---------------|-------------|-----|------------------------|
| N-nitrosodimethylami | 0.0            | 100            | 83           | 85         | 83            | 85          | 1   | 100   1-300            |
| Phenol               | 0.0            | 100            | 65           | 65         | 65            | 65          | 0   | 23   5-112             |
| bis(2-Chloroethyl)et | 0.0            | 100            | 66           | 64         | 66            | 64          | 2   | 55   12-158            |
| 2-Chlorophenol       | 0.0            | 100            | 65           | 65         | 65            | 65          | 1   | 29   23-134            |
| 1,3-Dichlorobenzene  | 0.0            | 100            | 48           | 48         | 48            | 48          | 1   | 42   1-172             |
| 1,4-Dichlorobenzene  | 0.0            | 100            | 49           | 50         | 49            | 50          | 2   | 32   20-124            |
| 1,2-Dichlorobenzene  | 0.0            | 100            | 52           | 53         | 52            | 53          | 1   | 31   32-129            |
| bis(2-chloroisopropy | 0.0            | 100            | 118          | 119        | 118           | 119         | 1   | 46   36-166            |
| N-Nitroso-Di-n-propy | 0.0            | 100            | 67           | 65         | 67            | 65          | 3   | 55   1-230             |
| Hexachloroethane     | 0.0            | 100            | 51           | 42         | 51            | 42          | 19  | 25   40-113            |
| Nitrobenzene         | 0.1            | 100            | 62           | 66         | 62            | 66          | 6   | 39   35-180            |
| Isophorone           | 0.0            | 100            | 60           | 63         | 60            | 63          | 5   | 63   21-196            |
| 2-Nitrophenol        | 0.0            | 100            | 63           | 65         | 63            | 65          | 4   | 35   29-182            |
| 2,4-Dimethylphenol   | 0.0            | 100            | 34           | 32         | 34            | 32          | 7   | 26   32-119            |
| bis(2-Chloroethoxy)m | 0.0            | 100            | 47           | 50         | 47            | 50          | 6   | 35   33-184            |
| 2,4-Dichlorophenol   | 0.0            | 100            | 68           | 68         | 68            | 68          | 1   | 26   39-135            |
| 1,2,4-Trichlorobenze | 0.0            | 100            | 57           | 60         | 57            | 60          | 6   | 28   44-142            |
| Naphthalene          | 0.0            | 100            | 63           | 66         | 63            | 66          | 4   | 30   21-133            |
| Hexachlorobutadiene  | 0.0            | 100            | 50           | 52         | 50            | 52          | 4   | 26   24-116            |
| 4-Chloro-3-methylphe | 0.0            | 100            | 63           | 63         | 63            | 63          | 1   | 37   22-147            |
| 2-Chloronaphthalene  | 0.0            | 100            | 67           | 70         | 67            | 70          | 4   | 13   60-118            |
| 2,4,6-Trichloropheno | 0.0            | 100            | 55           | 54         | 55            | 54          | 3   | 32   37-144            |
| Dimethylphthalate    | 0.0            | 100            | 38           | 34         | 38            | 34          | 11  | 23   1-112             |
| Acenaphthylene       | 0.0            | 100            | 52           | 52         | 52            | 52          | 0   | 40   33-145            |
| 2,6-Dinitrotoluene   | 0.0            | 100            | 76           | 74         | 76            | 74          | 3   | 30   50-158            |
| Acenaphthene         | 0.0            | 100            | 75           | 76         | 75            | 76          | 1   | 28   47-145            |
| 2,4-Dinitrophenol    | 0.0            | 100            | 67           | 66         | 67            | 66          | 2   | 50   1-191             |
| 4-Nitrophenol        | 0.6            | 100            | 79           | 80         | 79            | 79          | 0   | 47   1-132             |
| 2,4-Dinitrotoluene   | 0.0            | 100            | 71           | 74         | 71            | 74          | 3   | 22   39-139            |
| Diethylphthalate     | 0.0            | 100            | 49           | 48         | 49            | 48          | 2   | 27   1-114             |
| Fluorene             | 0.7            | 100            | 71           | 74         | 70            | 73          | 3   | 21   59-121            |
| 4-Chlorophenyl-pheny | 0.0            | 100            | 70           | 74         | 70            | 74          | 5   | 33   25-158            |
| 4,6-Dinitro-2-methyl | 0.0            | 100            | 75           | 72         | 75            | 72          | 4   | 93   1-181             |
| 4-Bromophenyl-phenyl | 0.0            | 100            | 73           | 76         | 73            | 76          | 3   | 23   53-127            |
| Hexachlorobenzene    | 0.0            | 100            | 84           | 84         | 84            | 84          | 1   | 25   1-152             |
| Pentachlorophenol    | 0.0            | 100            | 90           | 92         | 90            | 92          | 2   | 49   14-176            |
| Phenanthrene         | 0.0            | 100            | 79           | 76         | 79            | 76          | 3   | 21   54-120            |
| Anthracene           | 0.0            | 100            | 88           | 84         | 88            | 84          | 5   | 32   52-115            |
| Di-n-butylphthalate  | 0.1            | 100            | 80           | 79         | 80            | 79          | 1   | 17   1-118             |
| Fluoranthene         | 0.0            | 100            | 96           | 96         | 96            | 96          | 0   | 33   26-137            |
| Pyrene               | 0.0            | 100            | 67           | 68         | 67            | 68          | 2   | 25   52-115            |
| Butylbenzylphthalate | 0.2            | 100            | 67           | 68         | 67            | 67          | 0   | 23   1-152             |
| Benzo[a]anthracene   | 0.1            | 100            | 65           | 64         | 65            | 64          | 1   | 28   33-143            |
| 3,3'-Dichlorobenzidi | 0.0            | 100            | 20           | 31         | 20            | 31          | 46  | 71   1-262             |

|                      |     |     |     |     |     |     |   |    |        |
|----------------------|-----|-----|-----|-----|-----|-----|---|----|--------|
| Chrysene             | 0.1 | 100 | 117 | 117 | 117 | 117 | 0 | 48 | 17-168 |
| bis(2-Ethylhexyl)pht | 0.4 | 100 | 76  | 74  | 75  | 73  | 3 | 41 | 8-158  |
| Di-n-octylphthalate  | 0.0 | 100 | 65  | 68  | 65  | 68  | 6 | 31 | 4-146  |
| Benzo[b]fluoranthene | 0.0 | 100 | 52  | 51  | 52  | 51  | 2 | 39 | 24-159 |
| Benzo[k]fluoranthene | 0.1 | 100 | 108 | 106 | 108 | 106 | 2 | 32 | 11-162 |
| Benzo[a]pyrene       | 0.1 | 100 | 104 | 103 | 104 | 102 | 2 | 39 | 17-163 |
| Indeno[1,2,3-cd]pyre | 0.0 | 100 | 42  | 39  | 42  | 39  | 8 | 45 | 1-171  |
| Dibenz[a,h]anthracen | 0.0 | 100 | 52  | 48  | 52  | 48  | 8 | 70 | 1-227  |
| Benzo[g,h,i]perylene | 0.0 | 100 | 53  | 49  | 53  | 49  | 9 | 59 | 1-219  |

202

BNACLP.M

Tue Jun 13 13:39:34 1995

BNA

Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 28616    | 40.00 | ug/mL | 0.17      |
| 17) Naphthalene-d8        | 12.94 | 136  | 119812   | 40.00 | ug/mL | 0.19      |
| 32) Acenaphthene-d10      | 18.26 | 164  | 81829    | 40.00 | ug/mL | 0.21      |
| 50) Phenanthrene-d10      | 22.77 | 188  | 135678   | 40.00 | ug/mL | 0.25      |
| 64) Chrysene-d12          | 30.90 | 240  | 133913   | 40.00 | ug/mL | 0.32      |
| 73) Perylene-d12          | 34.89 | 264  | 64806    | 40.00 | ug/mL | 0.30      |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |       |       |        |
|--------------------------|-------|-----|--------|-------|-------|--------|
| 2) 2-Fluorophenol        | 5.64  | 112 | 38324  | 47.35 | ug/mL | 47.35% |
| 3) Phenol-d5             | 8.55  | 99  | 92701  | 69.20 | ug/mL | 69.20% |
| 18) Nitrobenzene-d5      | 10.88 | 82  | 102452 | 75.05 | ug/mL | 75.05% |
| 36) 2-Fluorobiphenyl     | 16.41 | 172 | 163275 | 66.52 | ug/mL | 66.52% |
| 54) 2,4,6-Tribromophenol | 20.71 | 330 | 33951  | 92.66 | ug/mL | 92.66% |
| 67) Terphenyl-d14        | 27.93 | 244 | 283818 | 79.85 | ug/mL | 79.85% |

## Target Compounds

Qvalue

|                                 |       |     |        |        |        |     |
|---------------------------------|-------|-----|--------|--------|--------|-----|
| 4) N-nitrosodimethylamine       | 2.41  | 74  | 34539  | 83.50  | ug/mlm | 0   |
| 5) Pyridine                     | 1.54  | 79  | 2567   | 8.38   | ug/ml  | 100 |
| 6) Phenol                       | 8.59  | 94  | 77522  | 64.98  | ug/mL  | 100 |
| 7) bis(2-Chloroethyl) ether     | 12.59 | 93  | 95053  | 65.59  | ug/mL  | 96  |
| 8) 2-Chlorophenol               | 8.61  | 128 | 59112  | 65.10  | ug/mL  | 95  |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146 | 47356  | 47.79  | ug/mL  | 98  |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146 | 50047  | 48.96  | ug/mL  | 99  |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146 | 50447  | 51.95  | ug/mL  | 97  |
| 13) bis(2-chloroisopropyl) ethe | 10.28 | 45  | 157284 | 117.66 | ug/mL# | 66  |
| 15) N-Nitroso-Di-n-propylamine  | 10.67 | 70  | 64689  | 67.19  | ug/mL  | 99  |
| 16) Hexachloroethane            | 10.61 | 117 | 26874  | 50.94  | ug/mLm | 92  |
| 19) Nitrobenzene                | 10.94 | 77  | 78667  | 61.95  | ug/mL# | 76  |
| 20) Isophorone                  | 11.75 | 82  | 159932 | 59.77  | ug/mL  | 99  |
| 21) 2-Nitrophenol               | 11.88 | 139 | 39464  | 62.63  | ug/mL  | 87  |
| 22) 2,4-Dimethylphenol          | 12.33 | 107 | 40415  | 34.28  | ug/mLm | 1   |
| 23) bis(2-Chloroethoxy) methane | 8.70  | 93  | 64392  | 47.13  | ug/mL  | 98  |
| 24) 2,4-Dichlorophenol          | 12.67 | 162 | 60633  | 67.90  | ug/mL  | 98  |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180 | 53810  | 56.69  | ug/mL  | 99  |
| 26) Naphthalene                 | 13.00 | 128 | 185978 | 63.43  | ug/mL# | 91  |
| 27) 4-Chloroaniline             | 13.00 | 127 | 23324  | 16.82  | ug/mL# | 8   |
| 28) Hexachlorobutadiene         | 13.52 | 225 | 27583  | 49.77  | ug/mL  | 98  |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107 | 71878  | 62.51  | ug/mL  | 92  |
| 30) 2-Chloronaphthalene         | 16.58 | 162 | 140364 | 67.32  | ug/ml  | 95  |
| 31) 2-Methylnaphthalene         | 15.04 | 142 | 56186  | 23.87  | ug/mL# | 18  |
| 34) 2,4,6-Trichlorophenol       | 16.12 | 196 | 47014  | 55.32  | ug/mL  | 97  |
| 35) 2,4,5-Trichlorophenol       | 16.12 | 196 | 47014  | 70.91  | ug/mL  | 98  |
| 37) 2-Nitroaniline              | 17.93 | 65  | 3809   | 3.39   | ug/mL# | 100 |
| 38) Dimethylphthalate           | 17.83 | 163 | 100094 | 37.65  | ug/mL  | 99  |

(#)= qualifier out of range (m) = manual integration

b7828.d BNACLP.M

Tue Jun 13 13:40:34 1995

BNA

Page 1



Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 181282   | 51.99  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 48485    | 76.40  | ug/mL  | 81     |
| 42) Acenaphthene               | 18.37 | 153  | 158243   | 75.46  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 23597    | 66.99  | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.14 | 109  | 26892    | 79.36  | ug/mL  | 88     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 169896   | 71.16  | ug/mL# | 34     |
| 47) Diethylphthalate           | 20.07 | 149  | 145441   | 49.27  | ug/mL  | 98     |
| 48) Fluorene                   | 19.97 | 166  | 183372   | 71.21  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 85539    | 70.12  | ug/mL  | 98     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 1902     | 3.37   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 33506    | 74.96  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 89532    | 51.93  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 282944   | 68.87  | ug/mL  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 51088    | 73.08  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 60888    | 83.62  | ug/mL# | 75     |
| 58) Pentachlorophenol          | 22.31 | 266  | 42101    | 90.27  | ug/mL  | 99     |
| 59) Phenanthrene               | 22.85 | 178  | 292342   | 78.75  | ug/mL  | 99     |
| 60) Anthracene                 | 22.85 | 178  | 302620   | 88.42  | ug/mL  | 99     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 437772   | 80.34  | ug/mL  | 99     |
| 63) Fluoranthene               | 27.12 | 202  | 337156   | 96.04  | ug/mL  | 94     |
| 65) Benzidine                  | 27.93 | 184  | 3699     | 2.53   | ug/mL  | 100    |
| 66) Pyrene                     | 27.12 | 202  | 336460   | 66.93  | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.70 | 149  | 217209   | 67.48  | ug/mL  | 87     |
| 69) Benzo[a]anthracene         | 30.88 | 228  | 328642   | 64.77  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 25385    | 19.62  | ug/mLm | 97     |
| 71) Chrysene                   | 30.88 | 228  | 330668   | 117.19 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.67 | 149  | 345135   | 75.58  | ug/mL  | 100    |
| 74) Di-n-octylphthalate        | 33.58 | 149  | 533567   | 64.65  | ug/mL  | 100    |
| 75) Benzo[b]fluoranthene       | 34.03 | 252  | 207506   | 51.92  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 34.03 | 252  | 207506   | 107.62 | ug/mL  | 92     |
| 77) Benzo[a]pyrene             | 34.03 | 252  | 207506   | 104.42 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.42 | 276  | 30768    | 41.98  | ug/mL# | 84     |
| 79) Dibenz[a,h]anthracene      | 37.54 | 278  | 36991    | 52.40  | ug/mL  | 94     |
| 80) Benzo[g,h,i]perylene       | 37.42 | 276  | 30768    | 53.39  | ug/mL  | 97     |

(#) = qualifier out of range (m) = manual integration

b7828.d BNACLP.M

Tue Jun 13 13:40:40 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

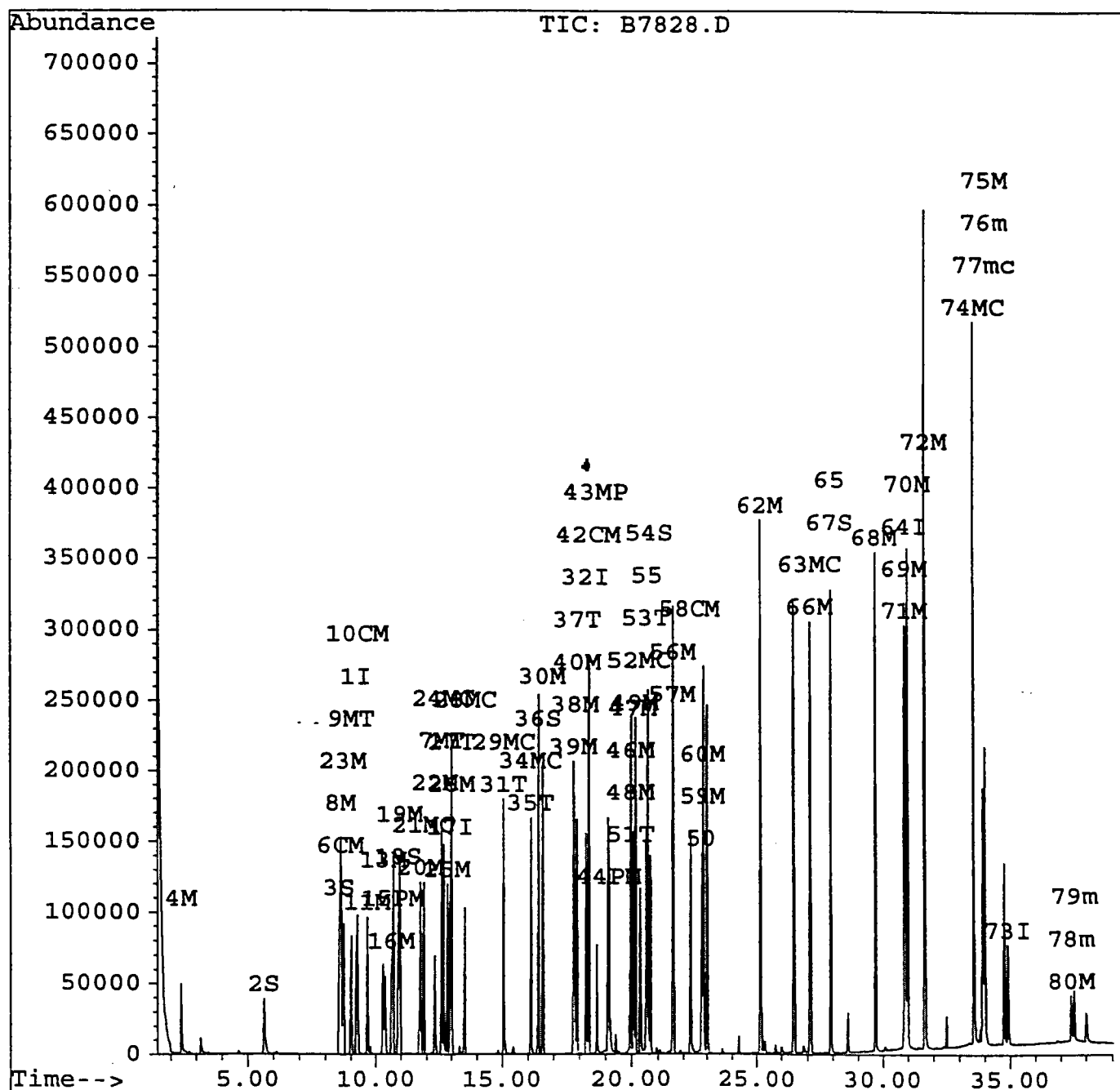
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7829.d

Vial: 28

Acq On : 4 Jun 95 7:54 am

Operator: SCOTTV

Sample : 22659MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units     | Dev (Min) |
|--------------------------------|-------|------|----------|--------|-----------|-----------|
| 1) 1,4-Dichlorobenzene-d4      | 9.21  | 152  | 30456    | 40.00  | ug/mL     | 0.17      |
| 17) Naphthalene-d8             | 12.94 | 136  | 121585   | 40.00  | ug/mL     | 0.19      |
| 32) Acenaphthene-d10           | 18.26 | 164  | 84364    | 40.00  | ug/mL     | 0.21      |
| 50) Phenanthrene-d10           | 22.77 | 188  | 145091   | 40.00  | ug/mL     | 0.25      |
| 64) Chrysene-d12               | 30.90 | 240  | 140877   | 40.00  | ug/mL     | 0.32      |
| 73) Perylene-d12               | 34.90 | 264  | 65773    | 40.00  | ug/mL     | 0.30      |
| System Monitoring Compounds    |       |      |          |        |           |           |
|                                |       |      |          |        | %Recovery |           |
| 2) 2-Fluorophenol              | 5.62  | 112  | 46772    | 54.29  | ug/mL     | 54.29%    |
| 3) Phenol-d5                   | 8.55  | 99   | 107330   | 75.28  | ug/mL     | 75.28%    |
| 18) Nitrobenzene-d5            | 10.88 | 82   | 108636   | 78.42  | ug/mL     | 78.42%    |
| 36) 2-Fluorobiphenyl           | 16.41 | 172  | 165709   | 65.48  | ug/mL     | 65.48%    |
| 54) 2,4,6-Tribromophenol       | 20.71 | 330  | 39093    | 99.77  | ug/mL     | 99.77%    |
| 67) Terphenyl-d14              | 27.93 | 244  | 291732   | 78.02  | ug/mL     | 78.02%    |
| Target Compounds               |       |      |          |        |           |           |
|                                |       |      |          |        | Qvalue    |           |
| 4) N-nitrosodimethylamine      | 2.41  | 74   | 37285    | 84.69  | ug/mlm    | 0         |
| 5) Pyridine                    | 1.56  | 79   | 2539     | 7.79   | ug/ml     | 100       |
| 6) Phenol                      | 8.59  | 94   | 82228    | 64.76  | ug/mL     | 100       |
| 7) bis(2-Chloroethyl)ether     | 12.60 | 93   | 99103    | 64.25  | ug/mL     | 98        |
| 8) 2-Chlorophenol              | 8.61  | 128  | 63241    | 65.44  | ug/mL     | 94        |
| 9) 1,3-Dichlorobenzene         | 9.01  | 146  | 51022    | 48.38  | ug/mL     | 97        |
| 10) 1,4-Dichlorobenzene        | 9.26  | 146  | 54214    | 49.83  | ug/mL     | 99        |
| 11) 1,2-Dichlorobenzene        | 9.65  | 146  | 54332    | 52.57  | ug/mL     | 98        |
| 13) bis(2-chloroisopropyl)ethe | 10.28 | 45   | 169096   | 118.86 | ug/mL#    | 65        |
| 15) N-Nitroso-Di-n-propylamine | 10.67 | 70   | 66550    | 64.95  | ug/mL     | 99        |
| 16) Hexachloroethane           | 10.61 | 117  | 23688    | 42.19  | ug/mL     | 96        |
| 19) Nitrobenzene               | 10.94 | 77   | 84987    | 65.95  | ug/mL#    | 77        |
| 20) Isophorone                 | 11.75 | 82   | 169858   | 62.55  | ug/mL     | 99        |
| 21) 2-Nitrophenol              | 11.88 | 139  | 41660    | 65.15  | ug/mL     | 88        |
| 22) 2,4-Dimethylphenol         | 12.33 | 107  | 38383    | 32.08  | ug/mLm    | 1         |
| 23) bis(2-Chloroethoxy)methane | 8.70  | 93   | 69472    | 50.11  | ug/mL     | 100       |
| 24) 2,4-Dichlorophenol         | 12.67 | 162  | 61214    | 67.55  | ug/mL     | 97        |
| 25) 1,2,4-Trichlorobenzene     | 12.83 | 180  | 58047    | 60.26  | ug/mL     | 99        |
| 26) Naphthalene                | 13.00 | 128  | 195977   | 65.87  | ug/mL#    | 91        |
| 27) 4-Chloroaniline            | 13.00 | 127  | 24740    | 17.58  | ug/mL#    | 10        |
| 28) Hexachlorobutadiene        | 13.50 | 225  | 28998    | 51.56  | ug/mL     | 97        |
| 29) 4-Chloro-3-methylphenol    | 15.04 | 107  | 73983    | 63.40  | ug/mL     | 98        |
| 30) 2-Chloronaphthalene        | 16.58 | 162  | 148187   | 70.04  | ug/mL     | 98        |
| 31) 2-Methylnaphthalene        | 15.04 | 142  | 56674    | 23.73  | ug/mL#    | 18        |
| 34) 2,4,6-Trichlorophenol      | 16.12 | 196  | 47065    | 53.72  | ug/mL     | 98        |
| 35) 2,4,5-Trichlorophenol      | 16.12 | 196  | 47065    | 68.86  | ug/mL     | 99        |
| 37) 2-Nitroaniline             | 17.93 | 65   | 3818     | 3.30   | ug/mL#    | 100       |
| 38) Dimethylphthalate          | 17.83 | 163  | 92844    | 33.88  | ug/mL     | 99        |

(#)=qualifier out of range (m)=manual integration

b7829.d BNACLP.M

Tue Jun 13 13:41:28 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7829.d

Vial: 28

Acq On : 4 Jun 95 7:54 am

Operator: SCOTTV

Sample : 22659MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 187395   | 52.13  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 48705    | 74.44  | ug/mL  | 81     |
| 42) Acenaphthene               | 18.37 | 153  | 164599   | 76.13  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 23948    | 65.95  | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 27839    | 79.68  | ug/mL  | 90     |
| 46) 2,4-Dinitrotoluene         | 19.95 | 165  | 181124   | 73.58  | ug/mL# | 31     |
| 47) Diethylphthalate           | 20.07 | 149  | 147246   | 48.39  | ug/mL  | 98     |
| 48) Fluorene                   | 19.95 | 166  | 195315   | 73.56  | ug/mL  | 100    |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 92973    | 73.93  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2140     | 3.55   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 34580    | 72.34  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 103444   | 56.10  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 304015   | 69.20  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 56539    | 75.63  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 65629    | 84.28  | ug/mL# | 76     |
| 58) Pentachlorophenol          | 22.31 | 266  | 45874    | 91.98  | ug/mL  | 96     |
| 59) Phenanthrene               | 22.85 | 178  | 302063   | 76.09  | ug/mL  | 100    |
| 60) Anthracene                 | 22.85 | 178  | 307177   | 83.93  | ug/mL  | 99     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 462525   | 79.38  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.12 | 202  | 360324   | 95.98  | ug/mL  | 93     |
| 65) Benzidine                  | 27.93 | 184  | 3521     | 2.29   | ug/ml  | 100    |
| 66) Pyrene                     | 27.12 | 202  | 359722   | 68.02  | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 229144   | 67.66  | ug/mL  | 98     |
| 69) Benzo[a]anthracene         | 30.88 | 228  | 343280   | 64.31  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 42496    | 31.23  | ug/mLm | 95     |
| 71) Chrysene                   | 30.88 | 228  | 346867   | 116.85 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.68 | 149  | 354135   | 73.72  | ug/mL  | 97     |
| 74) Di-n-octylphthalate        | 33.58 | 149  | 572669   | 68.37  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 34.03 | 252  | 206742   | 50.97  | ug/mL  | 98     |
| 76) Benzo[k]fluoranthene       | 34.03 | 252  | 206742   | 105.65 | ug/mL  | 95     |
| 77) Benzo[a]pyrene             | 34.03 | 252  | 206742   | 102.50 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.42 | 276  | 28894    | 38.84  | ug/mL  | 89     |
| 79) Dibenz[a,h]anthracene      | 37.52 | 278  | 34681    | 48.41  | ug/mL# | 86     |
| 80) Benzo[g,h,i]perylene       | 37.42 | 276  | 28610    | 48.92  | ug/mL  | 100    |

(#) = qualifier out of range (m) = manual integration

b7829.d BNACLP.M

Tue Jun 13 13:41:36 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7829.d

Acq On : 4 Jun 95 7:54 am

Sample : 22659MSD.....

Misc :

Quant Time: Jun 13 13:38 1995

Vial: 28

Operator: SCOTTV

Inst : ABNA

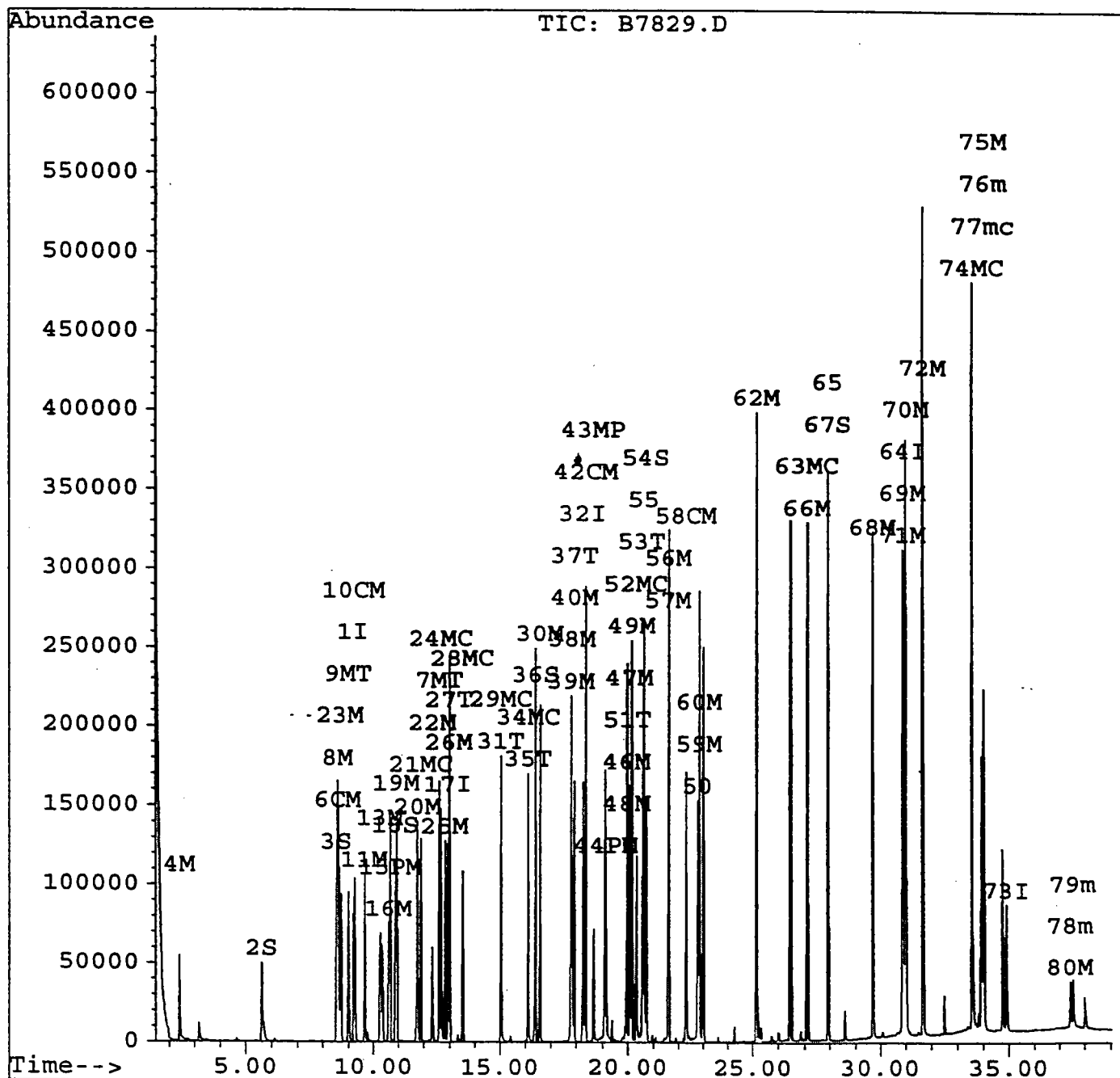
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Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

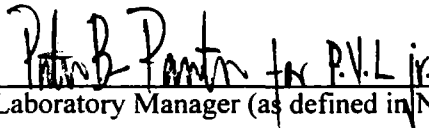
Response via : Multiple Level Calibration



New Jersey Department of Environmental Protection  
Division of Water Resources  
Bureau of Underground Storage Tanks  
CN-029, Trenton, New Jersey 08625

**LABORATORY AUTHENTICATION STATEMENT**

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

  
Laboratory Manager (as defined in N.J.A.C. 7:18)

# EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials



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Suite C-13  
Houston, TX 77092  
(713) 686-3635

## ANALYTICAL DATA REPORT FOR U.S. ARMY, FORT MONMOUTH SELFM-PW-EV Building 173 Fort Monmouth, NJ 07703

PROJECT : #94518093636

EMSL Project: # 95063946

| Field Sample No.<br>& Location      | Laboratory<br>Sample ID | Matrix  | Date & Time<br>of Collection | Date<br>Received |
|-------------------------------------|-------------------------|---------|------------------------------|------------------|
| 1868.1, Trip Blank                  | 95-26458                | Aqueous | 6/14/95, @ 0600              | 6/14/95          |
| 1868.2, Field Blank                 | 95-26459                | Aqueous | 6/14/95 @ 1400               | 6/14/95          |
| 1868.3, MW1-2931777,<br>Bldg. #2000 | 95-26460                | Aqueous | 6/14/95 @ 1017               | 6/14/95          |

Laboratory Name

Certification No.

Supervisor/Manager Signature

Printed Name

Date

EMSL ANALYTICAL, INC.

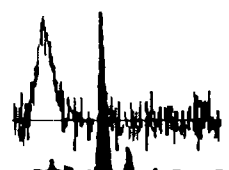
NJDEP No. 04653

PADER No. 68-367

NY-ELAP No. 10896

*Paul V. Laraia*  
Paul V. Laraia

*07-17-95*



REPORT NARRATIVE

All initial runs for the Ft. Monmouth P.O. #IJO #95-0091/SAI were analyzed within hold. The samples were taken by EMSL between the dates of 5/18/95 thru 5/25/95.

There was a problem with the water used for the field and trip blanks. On certain days the field crew used DI water from the incorrect system resulting in low level contamination of Toluene, 2-Chlorotoluene and sometimes Chlorobenzene. However the resultant concentrations of these compounds were very low and the samples accompanying these field and trip blanks did not show these compounds to be present.



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| . Initial Calibration Data                                |             |
| . Continuing Calibration DFTPP Tune                       |             |
| . Continuing Calibration Data                             |             |
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EMSL

SAMPLE DATA SUMMARY PACKAGE

Attention: Charles Appleby  
U.S. Army - Fort Monmouth  
SELF-M-PW-EV  
Building 173  
Fort Monmouth, NJ 07703

Project #: 95063946  
Date Received: 06/14/95 16:30

The following results are for BN by 625 with Library Search

| Lab #      | Conc.              | Unit | Client Designation    |
|------------|--------------------|------|-----------------------|
| 95 0026459 | ;see attached ug/l |      | Field Blank           |
| 95 0026460 | ;see attached ug/l |      | Bldg.2000 MW1-2931777 |

The following results are for Volatiles by 524.2 w/ Library Search

| Lab #      | Conc.              | Unit | Client Designation    |
|------------|--------------------|------|-----------------------|
| 95 0026458 | ;see attached ug/l |      | Trip Blank            |
| 95 0026459 | ;see attached ug/l |      | Field Blank           |
| 95 0026460 | ;see attached ug/l |      | Bldg.2000 MW1-2931777 |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

005

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1868-1

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |      |
|------------|---------------------------|----------------------|------|
|            |                           | (ug/L or ug/Kg)      | ug/L |
|            |                           |                      | Q    |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U    |
| 74-87-3    | Chloromethane             | 1.9                  |      |
| 75-01-4    | Vinyl chloride            | .50                  | U    |
| 74-83-9    | Bromomethane              | .50                  | U    |
| 75-00-3    | Chloroethane              | .50                  | U    |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U    |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U    |
| 75-09-2    | Methylene chloride        | 1.8                  | B    |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U    |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U    |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U    |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U    |
| 74-97-1    | Bromochloromethane        | .50                  | U    |
| 67-66-3    | Chloroform                | .50                  | U    |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U    |
| 56-23-1    | Carbon tetrachloride      | .50                  | U    |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U    |
| 71-43-2    | Benzene                   | .50                  | U    |
| 107-06-2   | 1,2-Dichloroethane        | 12                   |      |
| 79-01-6    | Trichloroethene           | .50                  | U    |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U    |
| 74-95-3    | Dibromomethane            | .50                  | U    |
| 75-27-4    | Bromodichloromethane      | .50                  | U    |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U    |
| 108-88-3   | Toluene                   | .50                  | U    |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U    |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U    |
| 127-18-4   | Tetrachloroethene         | .50                  | U    |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U    |
| 124-48-1   | Dibromochloromethane      | .50                  | U    |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U    |
| 108-90-7   | Chlorobenzene             | .50                  | U    |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U    |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

006

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1868.1

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  | U    |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  | U    |
| 135-98-8  | sec-Butylbenzene            | .50                  | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .50                  | U    |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

007

1868-1

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg# 2000

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name             | RT    | Est. Conc. | Q |
|-------------|---------------------------|-------|------------|---|
| 1. 107-04-0 | Ethane, 1-bromo-2-chloro- | 13.88 | 4          | J |
| 2.          |                           |       |            |   |
| 3.          |                           |       |            |   |
| 4.          |                           |       |            |   |
| 5.          |                           |       |            |   |
| 6.          |                           |       |            |   |
| 7.          |                           |       |            |   |
| 8.          |                           |       |            |   |
| 9.          |                           |       |            |   |
| 10.         |                           |       |            |   |
| 11.         |                           |       |            |   |
| 12.         |                           |       |            |   |
| 13.         |                           |       |            |   |
| 14.         |                           |       |            |   |
| 15.         |                           |       |            |   |
| 16.         |                           |       |            |   |
| 17.         |                           |       |            |   |
| 18.         |                           |       |            |   |
| 19.         |                           |       |            |   |
| 20.         |                           |       |            |   |
| 21.         |                           |       |            |   |
| 22.         |                           |       |            |   |
| 23.         |                           |       |            |   |
| 24.         |                           |       |            |   |
| 25.         |                           |       |            |   |
| 26.         |                           |       |            |   |
| 27.         |                           |       |            |   |
| 28.         |                           |       |            |   |
| 29.         |                           |       |            |   |
| 30.         |                           |       |            |   |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

008

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1868.2

Project No.: FT. MONMOUTH NJ Bldg# 2100

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |      |
|------------|---------------------------|----------------------|------|
|            |                           | (ug/L or ug Kg)      | ug/L |
|            |                           |                      | Q    |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U    |
| 74-87-3    | Chloromethane             | 1.1                  |      |
| 75-01-4    | Vinyl chloride            | .50                  | U    |
| 74-83-9    | Bromomethane              | .50                  | U    |
| 75-00-3    | Chloroethane              | .50                  | U    |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U    |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U    |
| 75-09-2    | Methylene chloride        | 1.6                  | U    |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U    |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U    |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U    |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U    |
| 74-97-1    | Bromochloromethane        | .50                  | U    |
| 67-66-3    | Chloroform                | .50                  | U    |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U    |
| 56-23-1    | Carbon tetrachloride      | .50                  | U    |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U    |
| 71-43-2    | Benzene                   | .50                  | U    |
| 107-06-2   | 1,2-Dichloroethane        | 11                   |      |
| 79-01-6    | Trichloroethene           | .50                  | U    |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U    |
| 74-95-3    | Dibromomethane            | .50                  | U    |
| 75-27-4    | Bromodichloromethane      | .50                  | U    |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U    |
| 108-88-3   | Toluene                   | .50                  | U    |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U    |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U    |
| 127-18-4   | Tetrachloroethene         | .50                  | U    |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U    |
| 124-48-1   | Dibromochloromethane      | .50                  | U    |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U    |
| 108-90-7   | Chlorobenzene             | .50                  | U    |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U    |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

009

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1868-2

Project No.: FT. MONMOUTH NJ Bldg# 2000

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  | U    |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  | U    |
| 135-98-8  | sec-Butylbenzene            | .50                  | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .50                  | U    |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

010

1868-2

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg# 2000

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name             | RT    | Est. Conc. | Q |
|-------------|---------------------------|-------|------------|---|
| 1. 107-04-0 | Ethane, 1-bromo-2-chloro- | 13.88 | 4          | J |
| 2.          |                           |       |            |   |
| 3.          |                           |       |            |   |
| 4.          |                           |       |            |   |
| 5.          |                           |       |            |   |
| 6.          |                           |       |            |   |
| 7.          |                           |       |            |   |
| 8.          |                           |       |            |   |
| 9.          |                           |       |            |   |
| 10.         |                           |       |            |   |
| 11.         |                           |       |            |   |
| 12.         |                           |       |            |   |
| 13.         |                           |       |            |   |
| 14.         |                           |       |            |   |
| 15.         |                           |       |            |   |
| 16.         |                           |       |            |   |
| 17.         |                           |       |            |   |
| 18.         |                           |       |            |   |
| 19.         |                           |       |            |   |
| 20.         |                           |       |            |   |
| 21.         |                           |       |            |   |
| 22.         |                           |       |            |   |
| 23.         |                           |       |            |   |
| 24.         |                           |       |            |   |
| 25.         |                           |       |            |   |
| 26.         |                           |       |            |   |
| 27.         |                           |       |            |   |
| 28.         |                           |       |            |   |
| 29.         |                           |       |            |   |
| 30.         |                           |       |            |   |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ETL# 1868.2

LDG # 2000

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

9526459B

011

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water)

WATER

Lab Sample ID: 9526459B

Sample wt/vol:

1000.0 (g/mL ML

Lab File ID: B7998.D

Level: (low/med)

Date Received: 6/14/95

% Moisture: \_\_\_\_\_

decanted: (Y/N): N

Date Extracted: 6/20/95

Concentrated Extract Volume:

1000 (uL)

Date Analyzed: 6/23/95

Injection Volume:

1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               |      | U |
| 67-72-1   | Hexachloroethane              | 1               |      | U |
| 98-95-3   | Nitrobenzene                  | 2               |      | U |
| 78-59-1   | Isophorone                    | 1               |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               |      | U |
| 91-20-3   | Naphthalene                   | 2               |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2               |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               |      | U |
| 131-11-3  | Dimethylphthalate             | 1               |      | U |
| 208-96-8  | Acenaphthylene                | 5               |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               |      | U |
| 83-32-9   | Acenaphthene                  | 3               |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               |      | U |
| 84-66-2   | Diethylphthalate              | 1               |      | U |
| 86-73-7   | Fluorene                      | 3               |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               |      | U |
| 118-74-1  | Hexachlorobenzene             | 2               |      | U |
| 85-01-08  | Phenanthrene                  | 2               |      | U |
| 120-12-7  | Anthracene                    | 2               |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5               |      | U |
| 206-44-0  | Fluoranthene                  | 1               |      | U |
| 92-87-5   | Benzidine                     | 1               |      | U |



1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. **013**  
**9526459B**

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 9526459B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B7998.D

Level: (low/med) \_\_\_\_\_

Date Received: 6/14/95

% Moisture: \_\_\_\_\_ decanted: (Y/N) N

Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc | Q |
|------------|---------------|----|-----------|---|
| 1.         | NONE FOUND    |    |           |   |
| 2.         |               |    |           |   |
| 3.         |               |    |           |   |
| 4.         |               |    |           |   |
| 5.         |               |    |           |   |
| 6.         |               |    |           |   |
| 7.         |               |    |           |   |
| 8.         |               |    |           |   |
| 9.         |               |    |           |   |
| 10.        |               |    |           |   |
| 11.        |               |    |           |   |
| 12.        |               |    |           |   |
| 13.        |               |    |           |   |
| 14.        |               |    |           |   |
| 15.        |               |    |           |   |
| 16.        |               |    |           |   |
| 17.        |               |    |           |   |
| 18.        |               |    |           |   |
| 19.        |               |    |           |   |
| 20.        |               |    |           |   |
| 21.        |               |    |           |   |
| 22.        |               |    |           |   |
| 23.        |               |    |           |   |
| 24.        |               |    |           |   |
| 25.        |               |    |           |   |
| 26.        |               |    |           |   |
| 27.        |               |    |           |   |
| 28.        |               |    |           |   |
| 29.        |               |    |           |   |
| 30.        |               |    |           |   |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

014

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

18683

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: 1-2931777

Matrix: (soil/water) WATER

Lab Sample ID: 9526460

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8689.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |      |
|------------|---------------------------|----------------------|------|
|            |                           | (ug/L or ug/Kg)      | ug/L |
|            |                           |                      | Q    |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U    |
| 74-87-3    | Chloromethane             | .50                  | U    |
| 75-01-4    | Vinyl chloride            | .50                  | U    |
| 74-83-9    | Bromomethane              | .50                  | U    |
| 75-00-3    | Chloroethane              | .50                  | U    |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U    |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U    |
| 75-09-2    | Methylene chloride        | .80                  | 6    |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U    |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U    |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U    |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U    |
| 74-97-1    | Bromochloromethane        | .50                  | U    |
| 67-66-3    | Chloroform                | .50                  | U    |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U    |
| 56-23-1    | Carbon tetrachloride      | .50                  | U    |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U    |
| 71-43-2    | Benzene                   | .50                  | U    |
| 107-06-2   | 1,2-Dichloroethane        | .50                  | U    |
| 79-01-6    | Trichloroethene           | .50                  | U    |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U    |
| 74-95-3    | Dibromomethane            | .50                  | U    |
| 75-27-4    | Bromodichloromethane      | .50                  | U    |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U    |
| 108-88-3   | Toluene                   | .50                  | U    |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U    |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U    |
| 127-18-4   | Tetrachloroethene         | .50                  | U    |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U    |
| 124-48-1   | Dibromochloromethane      | .50                  | U    |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U    |
| 108-90-7   | Chlorobenzene             | .50                  | U    |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U    |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

015

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1868.3

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: 1-2931777

Matrix: (soil/water) WATER

Lab Sample ID: 9526460

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8689.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .60                  |      |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | 1.1                  |      |
| 135-98-8  | sec-Butylbenzene            | .50                  |      |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  |      |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .60                  |      |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1868-3

016

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#: 2000

NJDEPMW#: 1-293,777

Matrix: (soil/water) WATER

Lab Sample ID: 9526460V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8689.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:                      (uL)

Soil Aliquot Volume:                      (uL)

Concentration Units:

Number TICs found: 15

(ug/L or ug/Kg) ug/L

| CAS Number    | Compound Name                | RT    | Est. Conc. | Q |
|---------------|------------------------------|-------|------------|---|
| 1. 25340-17-4 | Benzene, diethyl-            | 21.75 | 2          | J |
| 2. 1074-43-7  | Benzene, 1-methyl-3-propyl-  | 21.78 | 2          | J |
| 3. 135-98-8   | Benzene, (1-methylpropyl)-   | 22.24 | 2          | J |
| 4. 1758-88-9  | Benzene, 2-ethyl-1,4-dimethy | 22.59 | 3          | J |
| 5.            | Unknown                      | 22.81 | 2          | J |
| 6.            | Unknown                      | 22.86 | 1          | J |
| 7. 527-53-7   | Benzene, 1,2,3,5-tetramethyl | 23.32 | 2          | J |
| 8. 488-23-3   | Benzene, 1,2,3,4-tetramethyl | 23.42 | 2          | J |
| 9.            | Unknown Hydrocarbon          | 24.21 | 2          | J |
| 10.           | Unknown                      | 24.22 | 1          | J |
| 11.           | Unknown                      | 25.09 | 2          | J |
| 12.           | Unknown                      | 25.58 | 2          | J |
| 13.           | Unknown                      | 25.76 | 2          | J |
| 14.           | Unknown                      | 26.58 | 2          | J |
| 15.           | Unknown                      | 26.59 | 1          | J |
| 16.           |                              |       |            |   |
| 17.           |                              |       |            |   |
| 18.           |                              |       |            |   |
| 19.           |                              |       |            |   |
| 20.           |                              |       |            |   |
| 21.           |                              |       |            |   |
| 22.           |                              |       |            |   |
| 23.           |                              |       |            |   |
| 24.           |                              |       |            |   |
| 25.           |                              |       |            |   |
| 26.           |                              |       |            |   |
| 27.           |                              |       |            |   |
| 28.           |                              |       |            |   |
| 29.           |                              |       |            |   |
| 30.           |                              |       |            |   |

ARMY  
FMETL# 1868.3  
NG# 2000

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FORT MONMOUTH, NJ  
US ARMY

9526460B

017

Lab Name: EMSL ANALYTICAL

FMETL#

Site:

BLDG#

NJDEP#

MW1-2931777

Matrix: (soil/water)

WATER

Lab Sample ID: 9526460B

Sample wt/vol:

1000.0 (g/mL ML

Lab File ID: B8035.D

Level: (low/med)

Date Received: 6/14/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 6/21/95

Concentrated Extract Volume:

1000 (uL)

Date Analyzed: 6/26/95

Injection Volume:

1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH:

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               | U    |   |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               | U    |   |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               | U    |   |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               | U    |   |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               | U    |   |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               | U    |   |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               | U    |   |
| 67-72-1   | Hexachloroethane              | 1               | U    |   |
| 98-95-3   | Nitrobenzene                  | 2               | U    |   |
| 78-59-1   | Isophorone                    | 1               | U    |   |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               | U    |   |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               | U    |   |
| 91-20-3   | Naphthalene                   | 2               | U    |   |
| 87-68-3   | Hexachlorobutadiene           | 2               | U    |   |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              | U    |   |
| 91-58-7   | 2-Chloronaphthalene           | 1               | U    |   |
| 131-11-3  | Dimethylphthalate             | 1               | U    |   |
| 208-96-8  | Acenaphthylene                | 5               | U    |   |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               | U    |   |
| 83-32-9   | Acenaphthene                  | 3               | U    |   |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               | U    |   |
| 84-66-2   | Diethylphthalate              | 1               | U    |   |
| 86-73-7   | Fluorene                      | 3               | U    |   |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               | U    |   |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               | U    |   |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               | U    |   |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               | U    |   |
| 118-74-1  | Hexachlorobenzene             | 2               | U    |   |
| 85-01-08  | Phenanthrene                  | 2               | U    |   |
| 120-12-7  | Anthracene                    | 2               | U    |   |
| 84-74-2   | Di-n-butylphthalate           | 5               | U    |   |
| 206-44-0  | Fluoranthene                  | 1               | U    |   |
| 92-87-5   | Benzidine                     | 1               | U    |   |





SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

9526460B

Lab Name: EMSL ANALYTICAL

US ARMY

FMETL# 1868.3

Site: \_\_\_\_\_

BLDG# 2000NJDEP# MW-2931777Matrix: (soil/water) WATERLab Sample ID: 9526460BSample wt/vol: 1000.0 (g/mL) MLLab File ID: B8035.D

Level: (low/med) \_\_\_\_\_

Date Received: 6/14/95% Moisture: \_\_\_\_\_ decanted: (Y/N) NDate Extracted: 6/21/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 6/26/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

Number TICs found: 1(ug/L or ug/Kg) ug/L

| CAS Number   | Compound Name                | RT   | Est. Conc | Q |
|--------------|------------------------------|------|-----------|---|
| 1. 3724-55-8 | 2-Pentanone, 4-hydroxy-4-met | 4.49 | 68        | J |
| 2.           |                              |      |           |   |
| 3.           |                              |      |           |   |
| 4.           |                              |      |           |   |
| 5.           |                              |      |           |   |
| 6.           |                              |      |           |   |
| 7.           |                              |      |           |   |
| 8.           |                              |      |           |   |
| 9.           |                              |      |           |   |
| 10.          |                              |      |           |   |
| 11.          |                              |      |           |   |
| 12.          |                              |      |           |   |
| 13.          |                              |      |           |   |
| 14.          |                              |      |           |   |
| 15.          |                              |      |           |   |
| 16.          |                              |      |           |   |
| 17.          |                              |      |           |   |
| 18.          |                              |      |           |   |
| 19.          |                              |      |           |   |
| 20.          |                              |      |           |   |
| 21.          |                              |      |           |   |
| 22.          |                              |      |           |   |
| 23.          |                              |      |           |   |
| 24.          |                              |      |           |   |
| 25.          |                              |      |           |   |
| 26.          |                              |      |           |   |
| 27.          |                              |      |           |   |
| 28.          |                              |      |           |   |
| 29.          |                              |      |           |   |
| 30.          |                              |      |           |   |

BLDG.#: 2000 MW#: 1 NJDEPE WELL ID # 2931777 020

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 6-14-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: overcast drizzle

ELEVATION OF CASING SURVEY MARK:           

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 14.77 FT

DEPTH FROM SURVEYORS MARK TO SCREEN:            FT 0.15 to screen

LENGTH OF SCREENED SECTION:            FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 11.09 FT

ELEVATION OF GW PRIOR TO PURGING:            FT from screen

THICKNESS OF LNAPL PRIOR TO PURGING:            ~~0~~ FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: <1 PPM 0909 none detected

D.O. 1.5 ppm

① pH: 4.43 TEMP: 16.5 °C, SPECIFIC CONDUCTIVITY: 436 µS/cm

DEPTH OF WELL:            FT

HEIGHT OF WATER:            FT

EVACUATED GAL. H2O: 8 GAL (3.67 X .65 X 3 = 7.176)

PURGING START TIME: 09:25 END TIME: 10:05

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 50 GAL. see comments

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 12.56 FT

② DISSOLVED OXYGEN: 2.1 ppm pH: 4.21 TEMP: 15.8 °C

SPECIFIC CONDUCTIVITY: 461 µS/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 10:11 END TIME: 10:17

③ DISSOLVED OXYGEN: 1.7 ppm pH: 4.45 TEMP: 15.4 °C

SPECIFIC CONDUCTIVITY: 470 µS/cm

Color none ODOR none

COMMENTS: on site 09:25 \* Due to recharge <0.5 gpm, purged 5 gallons and had to recharge enough to sample

## LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR  
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

|                                                                                                              | Check If<br>Complete |
|--------------------------------------------------------------------------------------------------------------|----------------------|
| 1. Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.              | <u>X</u>             |
| 2. Table of Contents                                                                                         | <u>X</u>             |
| 3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.                    | <u>X</u>             |
| 4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s.                                              | <u>X</u>             |
| 5. Document bound, paginated and legible.                                                                    | <u>X</u>             |
| 6. Chain of Custody                                                                                          | <u>X</u>             |
| 7. Methodology Summary                                                                                       | <u>X</u>             |
| 8. Laboratory Chronicle and Holding Time Check.                                                              | <u>X</u>             |
| 9. Results submitted on a dry weight basis (if applicable).                                                  | <u>X</u>             |
| 10. Method Detection Limits.                                                                                 | <u>X</u>             |
| 11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP. | <u>X</u>             |
| 12. Non-Conformance Summary                                                                                  | <u>X</u>             |

*Paul J. Jorgensen*

Laboratory Manager or Environmental  
Consultant's Signature

07-17-95

Date

## QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

### A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

#### Page #

- |              |                                                                                                                                                                     |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>1</u>     | 1. Name and address of the facility.                                                                                                                                |
| <u>1</u>     | 2. Name of the laboratory performing the sample analysis.                                                                                                           |
| <u>1</u>     | 3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.                                                                                 |
| <u>1</u>     | 4. Laboratory sample identification number.                                                                                                                         |
| <u>1</u>     | 5. Customer sample identification number corresponding to the laboratory sample identification.                                                                     |
| <u>1</u>     | 6. Sample Location (also on the site diagram).                                                                                                                      |
| <u>1</u>     | 7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges).<br>All sediment results must be reported on a dry weight basis. |
| <u>28-29</u> | 8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).                                                                                       |
| <u>1</u>     | 9. The signature of the person completing the report form.                                                                                                          |
| <u>1</u>     | 10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.                                      |
| <u>30</u>    | 11. A list of all parameters (constituents and conditions) for which the analyses were performed.                                                                   |
| <u>3-20</u>  | 12. Sample results and corresponding units for each parameter.                                                                                                      |

CHAIN OF CUSTODY

P.O. #: ISo # 95-0091 / SAI

95063946

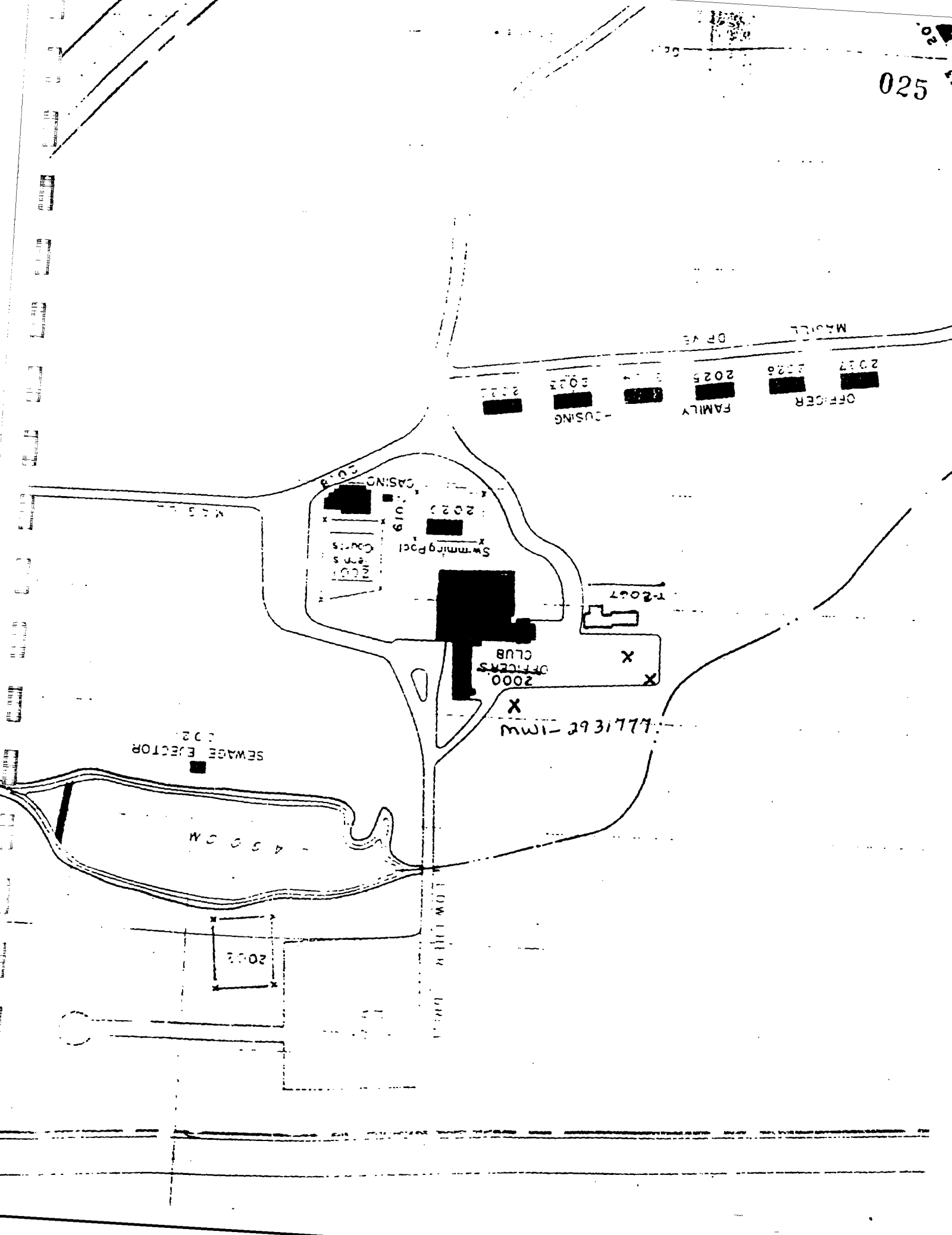
SRI-ENV CUC Form 01Page 1 of 1 Pages

Rev. A Date: 02 Apr 93

## Environmental Laboratory

### Certification Requirements

024





**EMSL ANALYTICAL, INC.**

## INTERNAL CHAIN OF CUSTODY



EMSL LAB ID NO. 95-26459, 95-26460

PROJECT NO. 95063946

## SAMPLE/CONTAINERS

## PARAMETERS

[illegible]

## INTERNAL CUSTODY

027

EMSL

Project #: 95063946Lab ID #'s: 95-26158 to 95-26159

## Analyst

Name (please print)

Signature

Date

1. Base/Neutrals

Scott Van EttenSV6/23, 26/95

2. Acids

3. Volatiles (GC)

4. Volatiles (GC/MS)

Scott KesslerS. Kessler6/22, 6/27/95

5. Base Neutrals/Acids

6. Gasoline

METHODOLOGY SUMMARY

## METHODOLOGY SUMMARY

### EPA Method 524.2 - Aqueous

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capillary column (DB-624 0.53 mm ID).

Method detection limits are as stated.

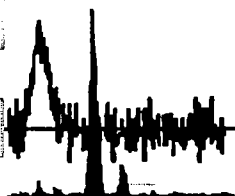
### Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. Reference is Federal Register, Vol. 40, No. 136, July, 1988.

An HP5890/5970B GC/MS is used with a DB-5 fused silica capillary column.

If tentatively identified compounds are requested, a computer program analyzes the non-priority pollutant/HSL/TCL compounds with standard mass spectra found in the latest version of the NIH/NBS/EPA mass spectral library.

Method detection limits are as stated.



LABORATORY CHRONICLE

Lab ID: 95-26458 to 95-26460

Client: U.S. Army, Fort Monmouth

|                                   | I | DATE        | II | <u>Hold Time</u> |
|-----------------------------------|---|-------------|----|------------------|
| Date Sampled                      |   | 6/14/95     |    |                  |
| Receipt/Refrigeration             |   | 6/14/95     |    |                  |
| Extractions                       |   |             |    |                  |
| 1. Semivolatile Organics, aqueous |   | 6/20, 21/95 |    | 7 days           |
| Analyses                          |   |             |    |                  |
| 1. Volatile Organics, aqueous     |   | 6/22, 27/95 |    | 14 days          |
| 2. Semivolatile Organics, aqueous |   | 6/23, 26/95 |    | 40 days          |

QC Supervisor  
Review & Approval(Signature) Peter B. Panton  
(Printed Name) Peter B. Panton

(Date)

07/18/95

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORM

|                                                                                                                                                                                                                 | No       | Yes      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| 1. Chromatograms Labeled/Compounds Identified<br>(Field Samples and Method Blanks)                                                                                                                              | _____    | <u>X</u> |
| 2. GC/MS Tune Specifications                                                                                                                                                                                    |          |          |
| a. BFB Meet Criteria                                                                                                                                                                                            | _____    | <u>X</u> |
| b. DFTPP Meet Criteria                                                                                                                                                                                          | _____    | <u>X</u> |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.                                                                                                               | _____    | <u>X</u> |
| 4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series. | _____    | <u>X</u> |
| 5. GC/MS Calibration - Initial Requirements                                                                                                                                                                     |          |          |
| a. Calibration Check Compounds                                                                                                                                                                                  | _____    | <u>X</u> |
| b. System Performance Check Compounds                                                                                                                                                                           | _____    | <u>X</u> |
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                                                                               | _____    | <u>X</u> |
| a. VOA Fraction <u>Methylene Chloride 1.5-2.1 ppb.</u>                                                                                                                                                          | _____    |          |
| b. B/N Fraction _____                                                                                                                                                                                           | _____    |          |
| c. Acid Fraction _____                                                                                                                                                                                          | _____    |          |
| 7. Surrogate Recoveries Meet Criteria                                                                                                                                                                           | _____    | <u>X</u> |
| If not met, list those compounds and their recoveries which fall outside the acceptable range:                                                                                                                  |          |          |
| a. VOA Fraction _____                                                                                                                                                                                           | _____    |          |
| b. B/N Fraction _____                                                                                                                                                                                           | _____    |          |
| c. Acid Fraction _____                                                                                                                                                                                          | _____    |          |
| If not met, were the calculations checked and the results qualified as "estimated"?                                                                                                                             |          |          |
| 8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)                                                 | <u>X</u> | _____    |
| a. VOA Fraction <u>Methylene Chloride 77% and 73%.</u>                                                                                                                                                          | _____    |          |
| b. B/N Fraction _____                                                                                                                                                                                           | _____    |          |
| c. Acid Fraction _____                                                                                                                                                                                          | _____    |          |
| 9. Internal Standard Area/Retention Time Shift Meet Criteria                                                                                                                                                    | _____    | <u>X</u> |

EMSL

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT, cont.

- |     |                                                                         | No             | Yes      |
|-----|-------------------------------------------------------------------------|----------------|----------|
| 10. | Extraction Holding Time Met                                             | _____          | <u>X</u> |
|     | If not met, list number of days exceeded for each sample:               | _____<br>_____ |          |
| 11. | Analysis Holding Time Met                                               | _____          | <u>X</u> |
|     | If not met, list number of days exceeded for each sample:               | _____<br>_____ |          |
| 12. | Definitions:                                                            |                |          |
|     | U=Not Detected. J=Detected, but below report detection limit.           |                |          |
|     | B=Compound found in blank. E=Estimated concentration. NA=Not Applicable |                |          |

Additional Comments: \_\_\_\_\_  
\_\_\_\_\_

Laboratory Manager

Paul Torais

Date:

07-17-95

EMSL

GC/MS VOLATILE ORGANIC DATA PACKAGE



VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab File ID: C8236.D BFB Injection Date: 05/26/95  
 Instrument ID: 5972-INSTRUMENT-1 BFB Injection Time: 0953  
 GC Column DB-62 ID: 0.53 (mm) Heated Purge: ( Y / N ) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 21.8                 |
| 75  | 30.0 - 60.0% of mass 95            | 52.3                 |
| 95  | Base peak, 100% relative abundance | 100.0                |
| 96  | 5.0 - 9.0% of mass 95              | 6.8                  |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 ) 1        |
| 174 | Greater than 50.0% of mass 95      | 57.2                 |
| 175 | 5.0 - 9.0% of mass 174             | 4.2 ( 7.4 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 55.4 ( 96.9 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.2 ( 5.8 ) 2        |

1-Value is % mass 174

2-Value is % mass 176

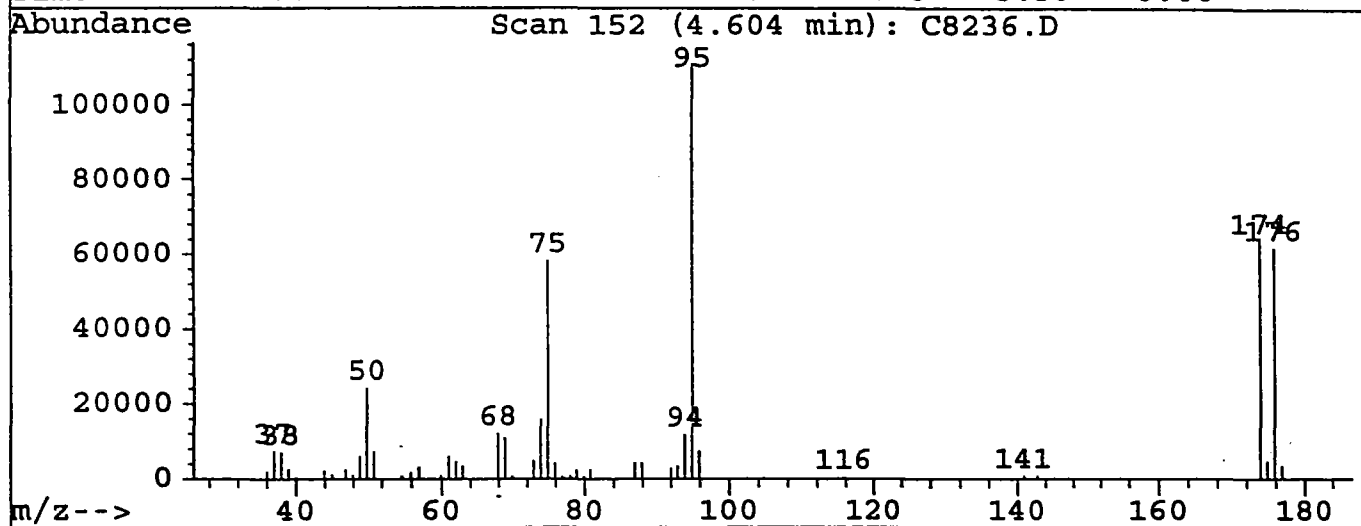
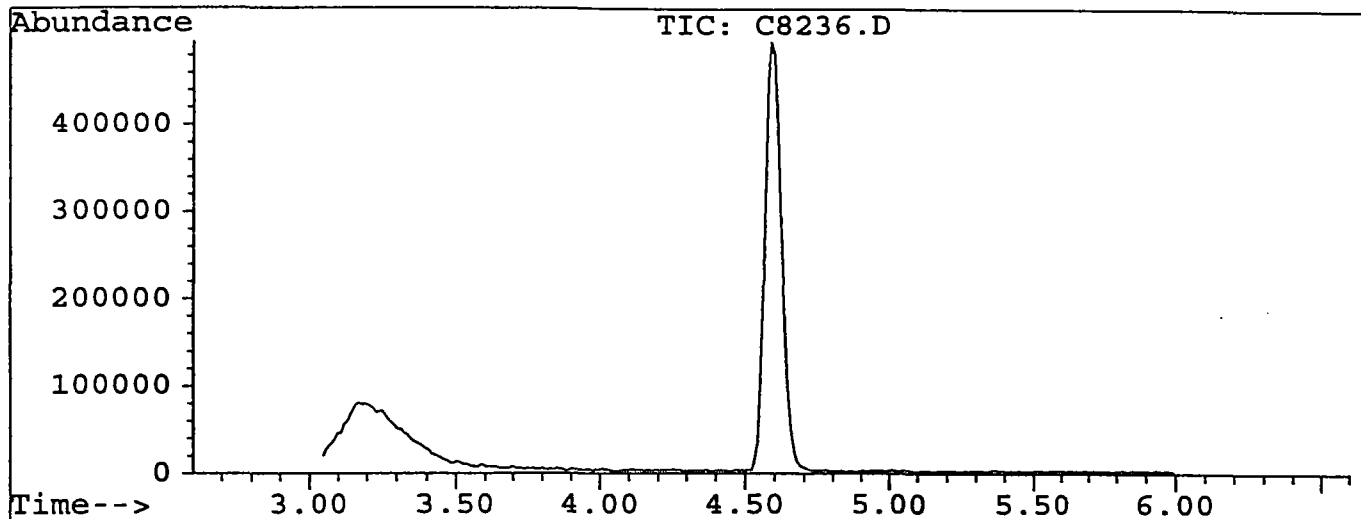
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| CLIENT    | LAB             | LAB     | DATE     | TIME     |
|-----------|-----------------|---------|----------|----------|
| SAMPLE ID | SAMPLE ID       | FILE ID | ANALYZED | ANALYZED |
| 01        | 4 PPB STANDARD  | C8237.D | 05/26/95 | 1035     |
| 02        | 10 PPB STANDARD | C8238.D | 05/26/95 | 1117     |
| 03        | 20 PPB STANDARD | C8239.D | 05/26/95 | 1151     |
| 04        | 30 PPB STANDARD | C8240.D | 05/26/95 | 1226     |
| 05        | 40 PPB STANDARD | C8241.D | 05/26/95 | 1300     |
| 06        |                 |         |          |          |
| 07        |                 |         |          |          |
| 08        |                 |         |          |          |
| 09        |                 |         |          |          |
| 10        |                 |         |          |          |
| 11        |                 |         |          |          |
| 12        |                 |         |          |          |
| 13        |                 |         |          |          |
| 14        |                 |         |          |          |
| 15        |                 |         |          |          |
| 16        |                 |         |          |          |
| 17        |                 |         |          |          |
| 18        |                 |         |          |          |
| 19        |                 |         |          |          |
| 20        |                 |         |          |          |
| 21        |                 |         |          |          |
| 22        |                 |         |          |          |

Data File : D:\HPCHEM\1\DATA\C8236.D  
 Acq On : 26 May 95 9:53 am  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 152

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 21.8      | 24232   | PASS             |
| 75          | 95           | 30           | 60           | 52.3      | 58152   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 111200  | PASS             |
| 96          | 95           | 5            | 9            | 6.8       | 7580    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 57.2      | 63568   | PASS             |
| 175         | 174          | 5            | 9            | 7.4       | 4678    | PASS             |
| 176         | 174          | 95           | 101          | 96.9      | 61624   | PASS             |
| 177         | 176          | 5            | 9            | 5.8       | 3577    | PASS             |

an 152 (4.604 min): C8236.D  
BFB TUNE

036

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.00 | 1948   | 50.95 | 7307   | 72.95 | 4912   | 92.05  | 2865   |
| 37.00 | 7455   | 54.75 | 959    | 73.95 | 15989  | 92.95  | 3574   |
| 38.00 | 7055   | 55.95 | 1728   | 74.95 | 58152  | 93.95  | 11832  |
| 39.00 | 2560   | 57.00 | 3162   | 75.95 | 4270   | 94.95  | 111200 |
| 40.00 | 629    | 59.90 | 1118   | 76.95 | 625    | 95.95  | 7580   |
| 43.90 | 2201   | 61.00 | 6169   | 78.00 | 812    | 115.75 | 506    |
| 45.00 | 1268   | 62.00 | 4780   | 78.90 | 2214   | 140.90 | 844    |
| 46.95 | 2491   | 62.90 | 3458   | 79.90 | 782    | 142.80 | 807    |
| 47.95 | 1002   | 67.95 | 12140  | 80.80 | 2619   | 173.95 | 63568  |
| 48.95 | 6125   | 68.95 | 11009  | 86.90 | 4356   | 174.85 | 4678   |
| 49.95 | 24232  | 69.95 | 836    | 87.95 | 4439   | 175.85 | 61624  |

152 (4.604 min): C8236.D  
BFB TUNE

| m/z   | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|-------|--------|-----|--------|-----|--------|-----|--------|
| 76.85 | 3577   |     |        |     |        |     |        |

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D  
 30 =C8240.D 40 =C8241.D

| Compound                | 4              | 10    | 20    | 30    | 40    | Avg    | %RSD  |
|-------------------------|----------------|-------|-------|-------|-------|--------|-------|
| Fluorobenzene           | -----ISTD----- |       |       |       |       |        |       |
| M Dichlorodifluorometha | 0.410          | 0.422 | 0.387 | 0.385 | 0.379 | 0.396  | 4.69  |
| M Chloromethane         | 0.227          | 0.249 | 0.227 | 0.232 | 0.232 | 0.233  | 3.89  |
| M Vinyl chloride        | 0.262          | 0.275 | 0.259 | 0.260 | 0.259 | 0.263  | 2.58  |
| M Bromomethane          | 0.193          | 0.197 | 0.170 | 0.166 | 0.164 | 0.178  | 8.95  |
| M Chloroethane          | 0.164          | 0.171 | 0.161 | 0.152 | 0.122 | 0.154  | 12.48 |
| M Trichlorofluoromethan | 0.583          | 0.600 | 0.585 | 0.589 | 0.581 | 0.588  | 1.25  |
| M 1,1-Dichloroethene    | 0.255          | 0.266 | 0.258 | 0.257 | 0.254 | 0.258  | 1.92  |
| M Methylene chloride    |                | 0.352 | 0.271 | 0.240 | 0.232 | 0.274  | 19.95 |
| M trans-1,2-Dichloroeth | 0.274          | 0.279 | 0.270 | 0.271 | 0.270 | 0.273  | 1.39  |
| Hexane                  |                |       |       |       |       | 0.000# | -1.00 |
| M 1,1-Dichloroethane    | 0.547          | 0.545 | 0.539 | 0.543 | 0.552 | 0.545  | 0.89  |
| M 2,2-Dichloropropane   | 0.561          | 0.546 | 0.527 | 0.525 | 0.514 | 0.534  | 3.50  |
| M cis-1,2-Dichloroethen | 0.263          | 0.262 | 0.253 | 0.251 | 0.256 | 0.257  | 2.11  |
| 2-Butanone              |                |       |       |       |       | 0.000# | -1.00 |
| M Bromochloromethane    | 0.089          | 0.088 | 0.089 | 0.089 | 0.094 | 0.090  | 2.82  |
| M Chloroform            | 0.511          | 0.509 | 0.507 | 0.507 | 0.524 | 0.512  | 1.38  |
| M 1,1,1-Trichloroethane | 0.573          | 0.566 | 0.561 | 0.564 | 0.567 | 0.566  | 0.77  |
| M Carbon tetrachloride  | 0.537          | 0.520 | 0.520 | 0.526 | 0.526 | 0.526  | 1.35  |
| M 1,1-Dichloropropene   | 0.498          | 0.506 | 0.486 | 0.494 | 0.488 | 0.495  | 1.59  |
| M Benzene               | 0.874          | 0.885 | 0.858 | 0.866 | 0.870 | 0.871  | 1.14  |
| M 1,2-Dichloroethane    | 0.206          | 0.210 | 0.214 | 0.214 | 0.225 | 0.214  | 3.36  |
| M Trichloroethene       | 0.387          | 0.388 | 0.383 | 0.386 | 0.386 | 0.386  | 0.51  |
| M 1,2-Dichloropropane   | 0.282          | 0.281 | 0.283 | 0.286 | 0.293 | 0.285  | 1.76  |
| M Dibromomethane        | 0.112          | 0.113 | 0.112 | 0.117 | 0.124 | 0.115  | 4.28  |
| M Bromodichloromethane  | 0.388          | 0.385 | 0.398 | 0.397 | 0.412 | 0.396  | 2.72  |
| M cis-1,3-Dichloroprope | 0.338          | 0.335 | 0.343 | 0.340 | 0.356 | 0.342  | 2.38  |
| M Toluene               | 0.646          | 0.605 | 0.610 | 0.613 | 0.619 | 0.619  | 2.61  |
| M trans-1,3-Dichloropro | 0.226          | 0.229 | 0.236 | 0.239 | 0.252 | 0.236  | 4.31  |
| M 1,1,2-Trichloroethane | 0.107          | 0.107 | 0.109 | 0.110 | 0.118 | 0.110  | 4.12  |
| M Tetrachloroethene     | 0.395          | 0.386 | 0.380 | 0.388 | 0.389 | 0.388  | 1.40  |
| M 1,3-Dichloropropane   | 0.217          | 0.213 | 0.221 | 0.218 | 0.226 | 0.219  | 2.24  |
| M Dibromochloromethane  | 0.208          | 0.205 | 0.215 | 0.216 | 0.231 | 0.215  | 4.72  |
| M 1,2-Dibromomethane    | 0.145          | 0.145 | 0.153 | 0.153 | 0.166 | 0.152  | 5.54  |
| M Chlorobenzene         | 0.650          | 0.638 | 0.636 | 0.640 | 0.657 | 0.644  | 1.38  |
| M 1,1,1,2-Tetrachloroet | 0.256          | 0.247 | 0.253 | 0.257 | 0.265 | 0.256  | 2.62  |
| M Ethylbenzene          | 1.316          | 1.279 | 1.288 | 1.308 | 1.320 | 1.302  | 1.38  |
| M Xylene (para & meta)  | 0.479          | 0.463 | 0.465 | 0.465 | 0.466 | 0.468  | 1.38  |
| M Xylene (Ortho)        | 0.417          | 0.409 | 0.412 | 0.413 | 0.418 | 0.414  | 0.93  |
| M Styrene               | 0.634          | 0.626 | 0.639 | 0.643 | 0.663 | 0.641  | 2.12  |
| M Bromoform             | 0.098          | 0.099 | 0.107 | 0.106 | 0.117 | 0.105  | 7.26  |
| M Isopropylbenzene      | 1.330          | 1.302 | 1.317 | 1.350 | 1.352 | 1.330  | 1.60  |
| S 4-Bromofluorobenzene  | 0.498          | 0.480 | 0.493 | 0.500 | 0.522 | 0.499  | 3.05  |

#) = Out of Range  
 VOA524.M

Fri May 26 16:06:32 1995

VOA

Page 1

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D  
 30 =C8240.D 40 =C8241.D

|     | Compound                | 4     | 10    | 20    | 30    | 40    | Avg   | %RSD  |
|-----|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 44) | M Bromobenzene          | 0.236 | 0.232 | 0.239 | 0.242 | 0.251 | 0.240 | 3.08  |
| 45) | M 1,1,2,2-Tetrachloroet | 0.110 | 0.112 | 0.121 | 0.120 | 0.127 | 0.118 | 6.04  |
| 46) | M 1,2,3-Trichloropropan | 0.143 | 0.138 | 0.144 | 0.141 | 0.150 | 0.143 | 2.93  |
| 47) | M n-Propylbenzene       | 1.736 | 1.684 | 1.719 | 1.754 | 1.761 | 1.731 | 1.79  |
| 48) | M 2-Chlorotoluene       | 0.967 | 0.923 | 0.956 | 0.968 | 0.988 | 0.960 | 2.50  |
| 49) | M 4-Chlorotoluene       | 1.153 | 1.113 | 1.108 | 1.151 | 1.176 | 1.140 | 2.54  |
| 50) | M 1,3,5-Trimethylbenzen | 1.107 | 1.066 | 1.095 | 1.117 | 1.122 | 1.101 | 2.04  |
| 51) | M tert-Butylbenzene     | 1.149 | 1.111 | 1.135 | 1.158 | 1.157 | 1.142 | 1.71  |
| 52) | M 1,2,4-Trimethylbenzen | 1.012 | 0.993 | 1.014 | 1.002 | 1.025 | 1.009 | 1.21  |
| 53) | M sec-Butylbenzene      | 1.707 | 1.634 | 1.688 | 1.722 | 1.715 | 1.693 | 2.10  |
| 54) | M 1,3-Dichlorobenzene   | 0.481 | 0.468 | 0.490 | 0.495 | 0.511 | 0.489 | 3.28  |
| 55) | M 4-Isopropyltoluene    | 1.257 | 1.228 | 1.267 | 1.280 | 1.290 | 1.264 | 1.88  |
| 56) | M 1,4-Dichlorobenzene   | 0.483 | 0.464 | 0.482 | 0.487 | 0.510 | 0.485 | 3.39  |
| 57) | S 1,2-Dichlorobenzene-d | 0.223 | 0.219 | 0.228 | 0.230 | 0.238 | 0.228 | 3.15  |
| 58) | M 1,2-Dichlorobenzene   | 0.371 | 0.351 | 0.359 | 0.366 | 0.374 | 0.364 | 2.53  |
| 59) | M n-Butylbenzene        | 1.362 | 1.297 | 1.353 | 1.381 | 1.382 | 1.355 | 2.55  |
| 60) | M 1,2-Dibromo-3-chlorop | 0.027 | 0.027 | 0.030 | 0.031 | 0.034 | 0.030 | 10.29 |
| 61) | M 1,2,4-Trichlorobenzen | 0.254 | 0.256 | 0.266 | 0.271 | 0.293 | 0.268 | 5.88  |
| 62) | M Hexachlorobutadiene   | 0.317 | 0.304 | 0.330 | 0.331 | 0.334 | 0.323 | 3.81  |
| 63) | M Naphthalene           | 0.219 | 0.220 | 0.225 | 0.233 | 0.262 | 0.232 | 7.66  |
| 64) | M 1,2,3-Trichlorobenzen | 0.183 | 0.175 | 0.184 | 0.186 | 0.207 | 0.187 | 6.31  |
| 65) | M Methyl-tert butyl eth | 0.289 | 0.286 | 0.292 | 0.288 | 0.306 | 0.292 | 2.82  |
| 66) | tert-Butyl Alcohol      |       | 0.004 | 0.005 | 0.005 | 0.005 | 0.004 | 8.73  |

Data File : d:\hpcchem\1\data\c8237.d  
 Acq On : 26 May 95 10:35 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:22 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.84 | 96   | 695393   | 5.00 | ug/L  | -0.09     |

| System Monitoring Compounds |       |     |        |           | %Recovery |
|-----------------------------|-------|-----|--------|-----------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95  | 138448 | 2.12 ug/L | 42.31%    |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152 | 62134  | 1.72 ug/L | 34.47%    |

| Target Compounds              |       |     |        |           | Qvalue |
|-------------------------------|-------|-----|--------|-----------|--------|
| 2) Dichlorodifluoromethane    | 3.28  | 85  | 227954 | 3.55 ug/L | 92     |
| 3) Chloromethane              | 3.65  | 50  | 126260 | 3.35 ug/L | 100    |
| 4) Vinyl chloride             | 3.86  | 62  | 145560 | 3.46 ug/L | 97     |
| 5) Bromomethane               | 4.54  | 94  | 107256 | 3.74 ug/L | 100    |
| 6) Chloroethane               | 4.76  | 64  | 91319  | 3.57 ug/L | 90     |
| 7) Trichlorofluoromethane     | 5.35  | 101 | 324396 | 3.90 ug/L | 91     |
| 8) 1,1-Dichloroethene         | 6.42  | 96  | 141941 | 3.68 ug/L | 98     |
| 9) Methylene chloride         | 7.41  | 84  | 319236 | 9.50 ug/L | 100    |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96  | 152530 | 3.73 ug/L | 94     |
| 12) 1,1-Dichloroethane        | 8.76  | 63  | 304419 | 3.74 ug/L | 95     |
| 13) 2,2-Dichloropropane       | 9.82  | 77  | 311983 | 4.42 ug/L | 99     |
| 14) cis-1,2-Dichloroethene    | 9.82  | 96  | 146539 | 3.80 ug/L | 99     |
| 16) Bromochloromethane        | 10.24 | 128 | 49545  | 3.27 ug/L | 88     |
| 17) Chloroform                | 10.40 | 83  | 284036 | 3.95 ug/L | 99     |
| 18) 1,1,1-Trichloroethane     | 10.73 | 97  | 318569 | 4.20 ug/L | 98     |
| 19) Carbon tetrachloride      | 11.03 | 117 | 299000 | 4.01 ug/L | 97     |
| 20) 1,1-Dichloropropene       | 11.01 | 75  | 277299 | 3.91 ug/L | 96     |
| 21) Benzene                   | 11.35 | 78  | 486262 | 3.81 ug/L | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62  | 114527 | 4.02 ug/L | 98     |
| 23) Trichloroethene           | 12.48 | 95  | 215417 | 3.81 ug/L | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63  | 156823 | 3.58 ug/L | 99     |
| 25) Dibromomethane            | 13.02 | 93  | 62165  | 3.54 ug/L | 95     |
| 26) Bromodichloromethane      | 13.30 | 83  | 215761 | 3.85 ug/L | 95     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75  | 187920 | 3.78 ug/L | 99     |
| 28) Toluene                   | 14.64 | 92  | 359379 | 4.19 ug/L | 98     |
| 29) trans-1,3-Dichloropropene | 14.99 | 75  | 125469 | 3.72 ug/L | 96     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83  | 59496  | 3.61 ug/L | 98     |
| 31) Tetrachloroethene         | 15.60 | 166 | 219930 | 3.61 ug/L | 90     |
| 32) 1,3-Dichloropropane       | 15.58 | 76  | 120535 | 3.72 ug/L | 100    |
| 33) Dibromochloromethane      | 15.99 | 129 | 115733 | 3.36 ug/L | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107 | 80701  | 3.46 ug/L | 99     |
| 35) Chlorobenzene             | 17.07 | 112 | 361810 | 3.72 ug/L | 96     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131 | 142326 | 3.50 ug/L | 95     |
| 37) Ethylbenzene              | 17.26 | 91  | 732369 | 4.06 ug/L | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106 | 533017 | 7.95 ug/L | 92     |
| 39) Xylene (Ortho)            | 18.17 | 106 | 231743 | 3.89 ug/L | 90     |
| 40) Styrene                   | 18.18 | 104 | 352838 | 3.78 ug/L | 87     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8237.d  
Acq On : 26 May 95 10:35 am  
Sample : 4 PPB STANDARD  
Misc :  
Quant Time: May 26 15:22 1995

Vial: 2 040  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

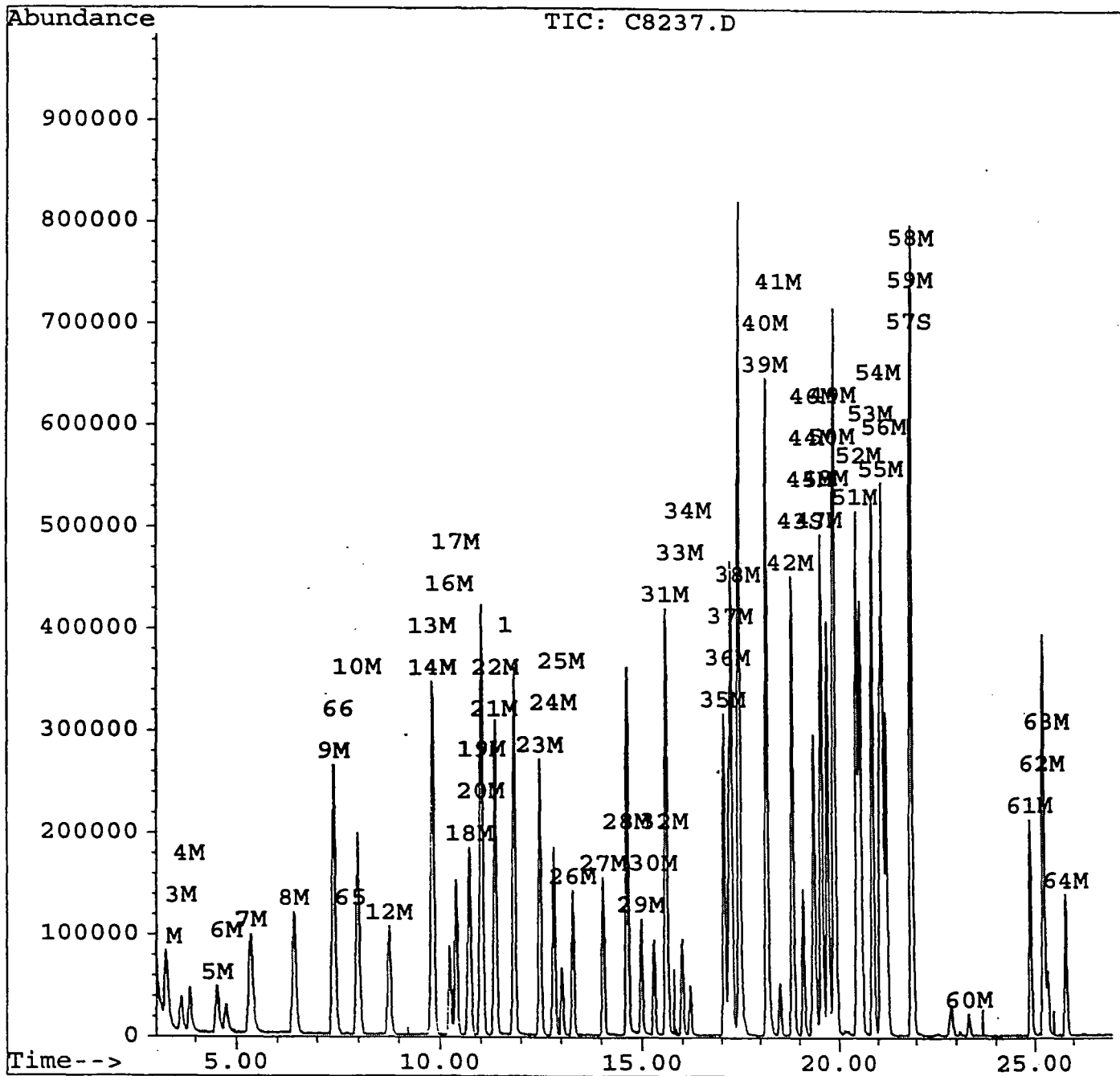
Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 54547    | 3.31 | ug/L   | 97     |
| 42) Isopropylbenzene           | 18.83 | 105  | 739665   | 3.93 | ug/L   | 89     |
| 44) Bromobenzene               | 19.38 | 156  | 131056   | 3.44 | ug/L # | 86     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 61247    | 3.65 | ug/L   | 98     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 79406    | 3.74 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.56 | 91   | 965762   | 4.01 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 538039   | 4.23 | ug/L   | 92     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 641340   | 4.20 | ug/L m | 96     |
| 50) 1,3,5-Trimethylbenzene     | 19.88 | 105  | 616118   | 4.04 | ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 639160   | 3.80 | ug/L   | 88     |
| 52) 1,2,4-Trimethylbenzene     | 20.57 | 105  | 562733   | 3.89 | ug/L   | 91     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 949602   | 3.96 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 267522   | 3.41 | ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 699174   | 3.73 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 268966   | 3.43 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 206476   | 3.45 | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.89 | 91   | 757856   | 3.95 | ug/L   | 95     |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 15013    | 3.81 | ug/L   | 81     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 141353   | 3.40 | ug/L   | 93     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 176270   | 4.13 | ug/L   | 97     |
| 63) Naphthalene                | 25.35 | 128  | 122077   | 3.12 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.82 | 180  | 101707   | 3.60 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 160639   | 4.38 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.72  | 59   | 2491     | 0.68 | ug/L m | 100    |

Data File : d:\hpchem\1\data\c8237.d  
 Acq On : 26 May 95 10:35 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:22 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration





Data File : d:\hpcchem\1\data\c8238.d  
 Acq On : 26 May 95 11:17 am  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:59 1995

Vial: 3  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.84 | 96   | 770985   | 5.00 | ug/L  | -0.09    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95   | 370331   | 5.10 | ug/L  | 102.07%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 169129   | 4.23 | ug/L  | 84.62%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.28  | 85   | 650612   | 9.13  | ug/L   | 100    |
| 3) Chloromethane              | 3.64  | 50   | 383966   | 9.18  | ug/L   | 96     |
| 4) Vinyl chloride             | 3.87  | 62   | 423851   | 9.09  | ug/L   | 98     |
| 5) Bromomethane               | 4.52  | 94   | 303978   | 9.57  | ug/L   | 93     |
| 6) Chloroethane               | 4.76  | 64   | 264421   | 9.32  | ug/L   | 94     |
| 7) Trichlorofluoromethane     | 5.34  | 101  | 924458   | 10.04 | ug/L   | 100    |
| 8) 1,1-Dichloroethene         | 6.42  | 96   | 410654   | 9.60  | ug/L   | 96     |
| 9) Methylene chloride         | 7.41  | 84   | 542259   | 14.55 | ug/L m | 99     |
| 10) trans-1,2-Dichloroethene  | 7.97  | 96   | 429522   | 9.48  | ug/L   | 100    |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 840489   | 9.32  | ug/L   | 97     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 841576   | 10.74 | ug/L   | 96     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 403406   | 9.42  | ug/L   | 98     |
| 16) Bromochloromethane        | 10.24 | 128  | 135650   | 8.08  | ug/L # | 88     |
| 17) Chloroform                | 10.40 | 83   | 785334   | 9.85  | ug/L   | 99     |
| 18) 1,1,1-Trichloroethane     | 10.73 | 97   | 873470   | 10.39 | ug/L   | 99     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 801421   | 9.70  | ug/L   | 100    |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 780145   | 9.93  | ug/L   | 96     |
| 21) Benzene                   | 11.35 | 78   | 1364187  | 9.64  | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 323971   | 10.26 | ug/L   | 99     |
| 23) Trichloroethene           | 12.48 | 95   | 597831   | 9.52  | ug/L   | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 432807   | 8.91  | ug/L   | 99     |
| 25) Dibromomethane            | 13.03 | 93   | 174304   | 8.95  | ug/L   | 99     |
| 26) Bromodichloromethane      | 13.29 | 83   | 593524   | 9.55  | ug/L   | 96     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 516054   | 9.37  | ug/L   | 96     |
| 28) Toluene                   | 14.64 | 92   | 932739   | 9.81  | ug/L   | 100    |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 353858   | 9.46  | ug/L   | 95     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 165554   | 9.05  | ug/L   | 98     |
| 31) Tetrachloroethene         | 15.61 | 166  | 594723   | 8.81  | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 328378   | 9.15  | ug/L   | 99     |
| 33) Dibromochloromethane      | 15.99 | 129  | 315396   | 8.25  | ug/L   | 98     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 223316   | 8.62  | ug/L   | 93     |
| 35) Chlorobenzene             | 17.07 | 112  | 983363   | 9.11  | ug/L   | 94     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 380569   | 8.45  | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 1971808  | 9.86  | ug/L   | 99     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 1428718  | 19.21 | ug/L   | 96     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 630244   | 9.53  | ug/L   | 96     |
| 40) Styrene                   | 18.19 | 104  | 965656   | 9.34  | ug/L   | 94     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpcchem\1\data\c8238.d  
 Acq On : 26 May 95 11:17 am  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:59 1995

Vial: 3 043  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

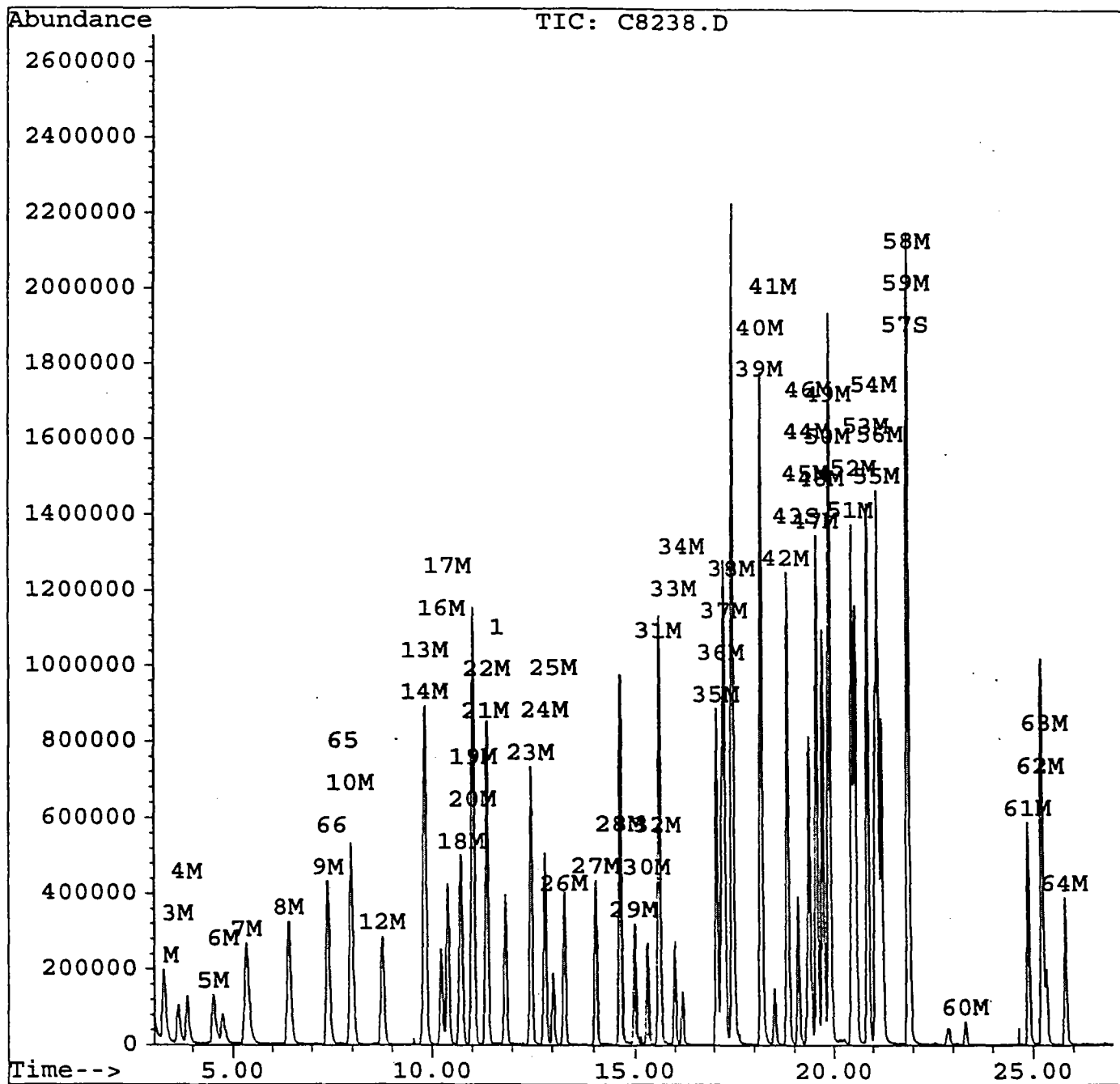
| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 153005   | 8.38  | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 2008385  | 9.63  | ug/L m | 45     |
| 44) Bromobenzene               | 19.38 | 156  | 357587   | 8.46  | ug/L   | 94     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 171968   | 9.24  | ug/L   | 97     |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 213285   | 9.05  | ug/L   | 98     |
| 47) n-Propylbenzene            | 19.57 | 91   | 2596029  | 9.72  | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 1422833  | 10.08 | ug/L   | 95     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 1716410  | 10.14 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 1643038  | 9.71  | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 1713787  | 9.19  | ug/L   | 90     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 1530473  | 9.54  | ug/L   | 94     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 2518935  | 9.48  | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 722076   | 8.30  | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 1893823  | 9.12  | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 715067   | 8.22  | ug/L m | 94     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 541575   | 8.16  | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.89 | 91   | 2000405  | 9.41  | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 41781    | 9.56  | ug/L   | 95     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 394479   | 8.55  | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 469504   | 9.93  | ug/L   | 98     |
| 63) Naphthalene                | 25.34 | 128  | 339645   | 7.82  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 269640   | 8.61  | ug/L   | 95     |
| 65) Methyl-tert butyl ether    | 7.99  | 73   | 440628   | 10.83 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.72  | 59   | 12035    | 2.96  | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8238.d  
Acq On : 26 May 95 11:17 am  
Sample : 10 PPB STANDARD  
Misc :  
Quant Time: May 26 15:59 1995

Vial: 3 044  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration



Data File : d:\hpchem\1\data\c8239.d  
 Acq On : 26 May 95 11:51 am  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:53 1995

Vial: 4  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.84 | 96   | 715239   | 5.00 | ug/L  | -0.09     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 705539   | 10.48 | ug/L  | 209.62%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 325789   | 8.79  | ug/L  | 175.71%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 1105977  | 16.74 | ug/L  | 99     |
| 3) Chloromethane              | 3.66  | 50   | 650013   | 16.75 | ug/L  | 99     |
| 4) Vinyl chloride             | 3.89  | 62   | 740002   | 17.11 | ug/L  | 100    |
| 5) Bromomethane               | 4.52  | 94   | 485674   | 16.48 | ug/L  | 93     |
| 6) Chloroethane               | 4.74  | 64   | 459311   | 17.45 | ug/L  | 92     |
| 7) Trichlorofluoromethane     | 5.35  | 101  | 1674654  | 19.60 | ug/L  | 95     |
| 8) 1,1-Dichloroethene         | 6.43  | 96   | 738739   | 18.61 | ug/L  | 98     |
| 9) Methylene chloride         | 7.40  | 84   | 775969   | 22.45 | ug/L  | 96     |
| 10) trans-1,2-Dichloroethene  | 7.98  | 96   | 771488   | 18.36 | ug/L  | 100    |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 1541660  | 18.42 | ug/L  | 99     |
| 13) 2,2-Dichloropropane       | 9.84  | 77   | 1507599  | 20.74 | ug/L  | 95     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 723609   | 18.22 | ug/L  | 95     |
| 16) Bromochloromethane        | 10.24 | 128  | 255840   | 16.43 | ug/L  | # 87   |
| 17) Chloroform                | 10.40 | 83   | 1450799  | 19.62 | ug/L  | m 0    |
| 18) 1,1,1-Trichloroethane     | 10.72 | 97   | 1604334  | 20.57 | ug/L  | m 0    |
| 19) Carbon tetrachloride      | 11.03 | 117  | 1488607  | 19.42 | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.01 | 75   | 1391827  | 19.09 | ug/L  | 99     |
| 21) Benzene                   | 11.36 | 78   | 2454890  | 18.69 | ug/L  | 98     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 611769   | 20.89 | ug/L  | 98     |
| 23) Trichloroethene           | 12.48 | 95   | 1094910  | 18.80 | ug/L  | 90     |
| 24) 1,2-Dichloropropane       | 12.84 | 63   | 809803   | 17.96 | ug/L  | 99     |
| 25) Dibromomethane            | 13.03 | 93   | 321601   | 17.80 | ug/L  | 98     |
| 26) Bromodichloromethane      | 13.30 | 83   | 1137821  | 19.73 | ug/L  | 96     |
| 27) cis-1,3-Dichloropropene   | 14.05 | 75   | 981011   | 19.20 | ug/L  | 95     |
| 28) Toluene                   | 14.64 | 92   | 1745202  | 19.79 | ug/L  | 98     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 675693   | 19.48 | ug/L  | m 53   |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 312764   | 18.44 | ug/L  | 95     |
| 31) Tetrachloroethene         | 15.61 | 166  | 1088014  | 17.38 | ug/L  | 97     |
| 32) 1,3-Dichloropropane       | 15.59 | 76   | 630863   | 18.95 | ug/L  | 96     |
| 33) Dibromochloromethane      | 16.00 | 129  | 614117   | 17.31 | ug/L  | 97     |
| 34) 1,2-Dibromomethane        | 16.20 | 107  | 438464   | 18.25 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.06 | 112  | 1819994  | 18.18 | ug/L  | 94     |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 725017   | 17.35 | ug/L  | m 0    |
| 37) Ethylbenzene              | 17.26 | 91   | 3685485  | 19.86 | ug/L  | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 2660124  | 38.56 | ug/L  | 90     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 1177400  | 19.20 | ug/L  | 88     |
| 40) Styrene                   | 18.19 | 104  | 1828264  | 19.06 | ug/L  | 91     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpcchem\1\data\c8239.d  
Acq On : 26 May 95 11:51 am  
Sample : 20 PPB STANDARD  
Misc :  
Quant Time: May 26 15:53 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

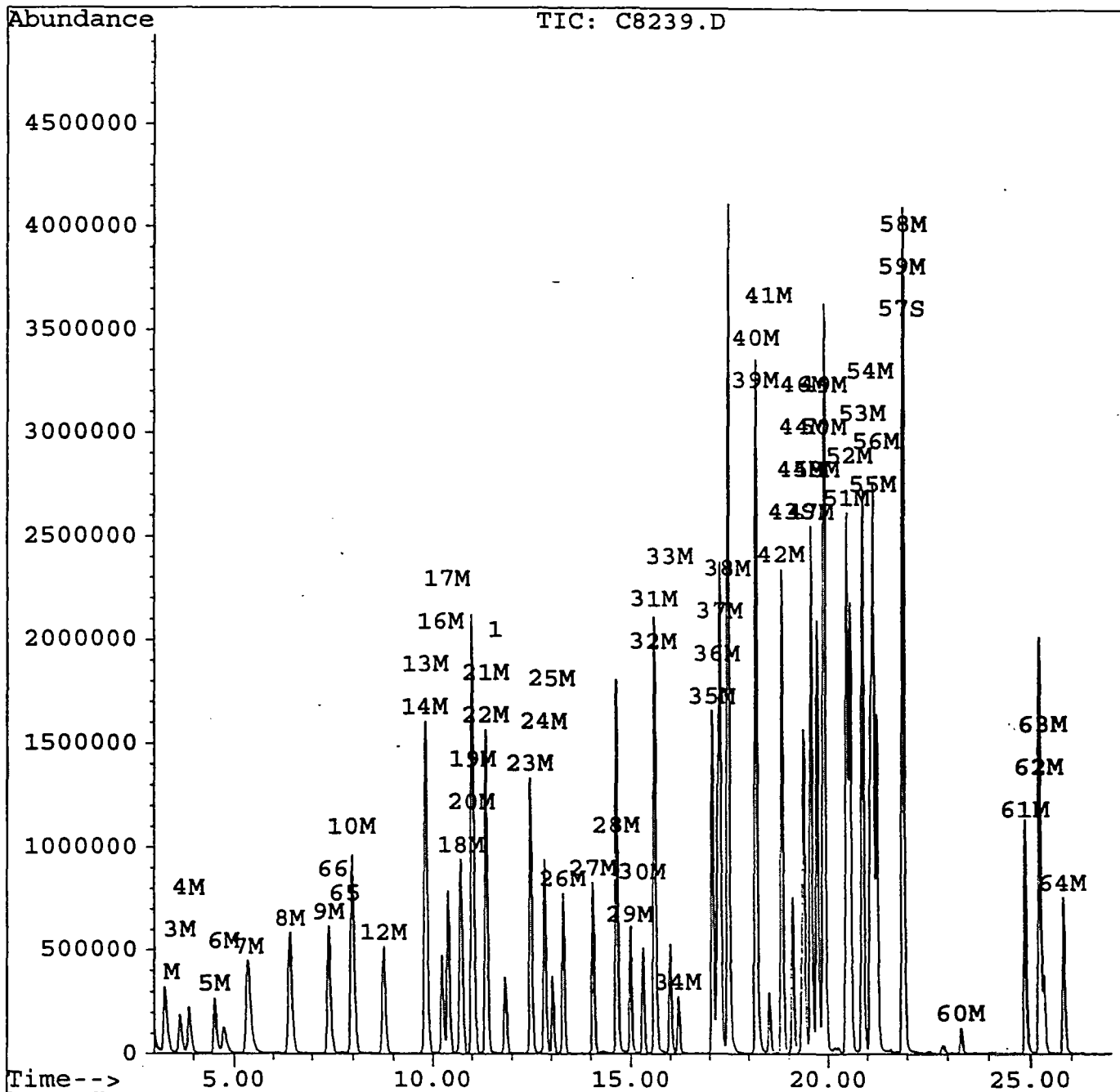
| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.50 | 173  | 304765   | 18.00 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 3768696  | 19.48 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 682381   | 17.40 | ug/L # | 89     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 345604   | 20.02 | ug/L   | 97     |
| 46) 1,2,3-Trichloropropane     | 19.39 | 75   | 411958   | 18.84 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.57 | 91   | 4919179  | 19.86 | ug/L   | 98     |
| 48) 2-Chlorotoluene            | 19.72 | 91   | 2734593  | 20.88 | ug/L   | 93     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 3170150  | 20.18 | ug/L   | 92     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 3133027  | 19.95 | ug/L   | 97     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 3247650  | 18.76 | ug/L   | 89     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 2901790  | 19.49 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 4827977  | 19.58 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 1403188  | 17.40 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 3624786  | 18.82 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.24 | 146  | 1378003  | 17.08 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 1028245  | 16.71 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.89 | 91   | 3870404  | 19.62 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 87006    | 21.47 | ug/L   | 87     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 759956   | 17.76 | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 943039   | 21.49 | ug/L   | 97     |
| 63) Naphthalene                | 25.33 | 128  | 643210   | 15.97 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 527272   | 18.16 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 836258   | 22.17 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.73  | 59   | 26154    | 6.93  | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8239.d  
 Acq On : 26 May 95 11:51 am  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:53 1995

Vial: 4 047  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration



Data File : d:\hpchem\1\data\c8240.d  
 Acq On : 26 May 95 12:26 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:31 1995

Vial: 5 048  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.83 | 96   | 707858   | 5.00 | ug/L  | -0.10     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.09 | 95   | 1062620  | 15.95 | ug/L  | 319.00%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 489408   | 13.34 | ug/L  | 266.70%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 1634270  | 24.99 | ug/L   | 98     |
| 3) Chloromethane              | 3.66  | 50   | 984170   | 25.63 | ug/L   | 100    |
| 4) Vinyl chloride             | 3.88  | 62   | 1106079  | 25.84 | ug/L   | 100    |
| 5) Bromomethane               | 4.50  | 94   | 702972   | 24.10 | ug/L   | 92     |
| 6) Chloroethane               | 4.72  | 64   | 647108   | 24.84 | ug/L   | 99     |
| 7) Trichlorofluoromethane     | 5.32  | 101  | 2502534  | 29.59 | ug/L   | 99     |
| 8) 1,1-Dichloroethene         | 6.42  | 96   | 1092314  | 27.81 | ug/L   | 94     |
| 9) Methylene chloride         | 7.40  | 84   | 1020488  | 29.83 | ug/L   | 97     |
| 10) trans-1,2-Dichloroethene  | 7.96  | 96   | 1150685  | 27.67 | ug/L   | 95     |
| 12) 1,1-Dichloroethane        | 8.76  | 63   | 2307375  | 27.86 | ug/L   | 98     |
| 13) 2,2-Dichloropropane       | 9.83  | 77   | 2228288  | 30.98 | ug/L   | 97     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 1065313  | 27.11 | ug/L   | 93     |
| 16) Bromochloromethane        | 10.24 | 128  | 379255   | 24.61 | ug/L # | 82     |
| 17) Chloroform                | 10.40 | 83   | 2154764  | 29.45 | ug/L   | 99     |
| 18) 1,1,1-Trichloroethane     | 10.72 | 97   | 2396695  | 31.05 | ug/L   | 99     |
| 19) Carbon tetrachloride      | 11.03 | 117  | 2233730  | 29.45 | ug/L   | 100    |
| 20) 1,1-Dichloropropene       | 11.02 | 75   | 2098843  | 29.09 | ug/L   | 98     |
| 21) Benzene                   | 11.36 | 78   | 3677001  | 28.29 | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.37 | 62   | 906868   | 31.29 | ug/L   | 98     |
| 23) Trichloroethene           | 12.48 | 95   | 1640085  | 28.46 | ug/L   | 91     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 1214345  | 27.22 | ug/L   | 100    |
| 25) Dibromomethane            | 13.03 | 93   | 494826   | 27.67 | ug/L   | 97     |
| 26) Bromodichloromethane      | 13.30 | 83   | 1685621  | 29.53 | ug/L m | 66     |
| 27) cis-1,3-Dichloropropene   | 14.06 | 75   | 1443936  | 28.55 | ug/L m | 0      |
| 28) Toluene                   | 14.64 | 92   | 2604382  | 29.84 | ug/L   | 97     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 1013926  | 29.53 | ug/L   | 98     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 468063   | 27.88 | ug/L   | 99     |
| 31) Tetrachloroethene         | 15.60 | 166  | 1648174  | 26.60 | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 925183   | 28.08 | ug/L   | 100    |
| 33) Dibromochloromethane      | 16.00 | 129  | 918828   | 26.18 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 650390   | 27.36 | ug/L   | 94     |
| 35) Chlorobenzene             | 17.07 | 112  | 2720037  | 27.45 | ug/L m | 0      |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 1093624  | 26.44 | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 5555166  | 30.24 | ug/L   | 97     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 3951154  | 57.87 | ug/L   | 91     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 1755270  | 28.92 | ug/L   | 92     |
| 40) Styrene                   | 18.18 | 104  | 2731131  | 28.76 | ug/L   | 87     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8240.d  
 Acq On : 26 May 95 12:26 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:31 1995

Vial: 5 049  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.50 | 173  | 450885   | 26.90 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 5734485  | 29.95 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 1026534  | 26.45 | ug/L # | 88     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.33 | 83   | 508409   | 29.75 | ug/L m | 0      |
| 46) 1,2,3-Trichloropropane     | 19.39 | 75   | 599222   | 27.69 | ug/L # | 57     |
| 47) n-Propylbenzene            | 19.57 | 91   | 7449042  | 30.39 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 4112354  | 31.73 | ug/L   | 93     |
| 49) 4-Chlorotoluene            | 19.91 | 91   | 4889333  | 31.45 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.88 | 105  | 4744702  | 30.53 | ug/L   | 95     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 4918253  | 28.71 | ug/L   | 86     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 4256753  | 28.89 | ug/L   | 95     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 7312067  | 29.96 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 2102035  | 26.33 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.14 | 119  | 5435557  | 28.52 | ug/L   | 94     |
| 56) 1,4-Dichlorobenzene        | 21.23 | 146  | 2067871  | 25.90 | ug/L m | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 1555987  | 25.55 | ug/L m | 44     |
| 59) n-Butylbenzene             | 21.89 | 91   | 5865257  | 30.04 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.32 | 75   | 130755   | 32.60 | ug/L   | 85     |
| 61) 1,2,4-Trichlorobenzene     | 24.89 | 180  | 1151444  | 27.19 | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.22 | 225  | 1405948  | 32.37 | ug/L   | 97     |
| 63) Naphthalene                | 25.34 | 128  | 988735   | 24.80 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 788297   | 27.43 | ug/L   | 97     |
| 65) Methyl-tert butyl ether    | 8.01  | 73   | 1221403  | 32.71 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.76  | 59   | 39667    | 10.62 | ug/L   | 100    |

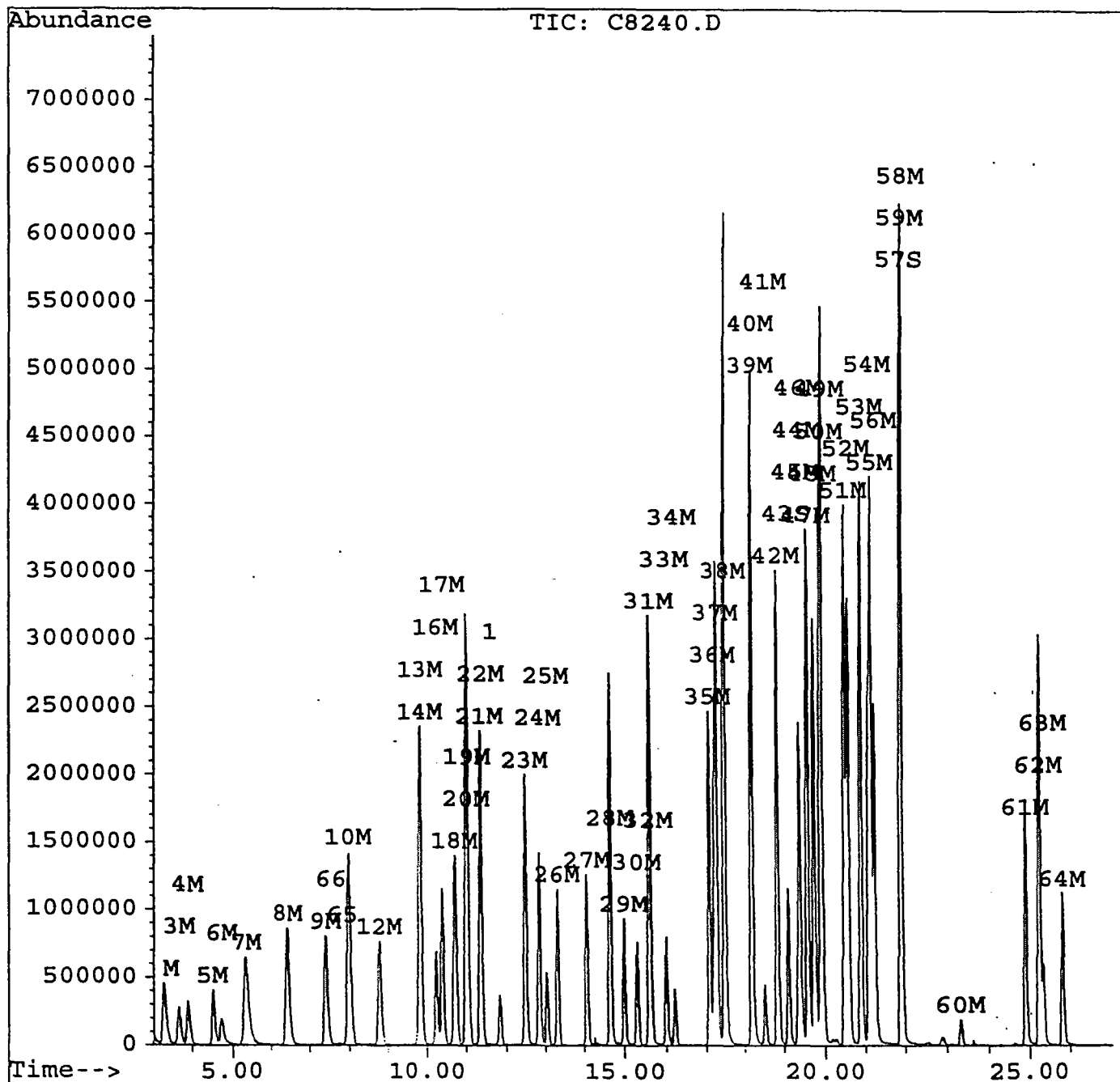
(#) = qualifier out of range (m) = manual integration



Data File : d:\hpchem\1\data\c8240.d  
 Acq On : 26 May 95 12:26 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:31 1995

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration



Data File : d:\hpchem\1\data\c8241.d  
 Acq On : 26 May 95 1:00 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: May 26 15:35 1995

Vial: 6 051  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Fri May 26 16:05:53 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.83 | 96   | 677208   | 5.00 | ug/L  | -0.10     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.10 | 95   | 1414597  | 22.19 | ug/L  | 443.88%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.88 | 152  | 645268   | 18.38 | ug/L  | 367.55%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.29  | 85   | 2050828  | 32.77 | ug/L   | 99     |
| 3) Chloromethane              | 3.66  | 50   | 1255453  | 34.18 | ug/L   | 98     |
| 4) Vinyl chloride             | 3.88  | 62   | 1403518  | 34.27 | ug/L   | 99     |
| 5) Bromomethane               | 4.50  | 94   | 887089   | 31.79 | ug/L   | 95     |
| 6) Chloroethane               | 4.68  | 64   | 660776   | 26.52 | ug/L   | 99     |
| 7) Trichlorofluoromethane     | 5.29  | 101  | 3146458  | 38.89 | ug/L   | 98     |
| 8) 1,1-Dichloroethene         | 6.40  | 96   | 1373656  | 36.56 | ug/L   | 94     |
| 9) Methylene chloride         | 7.39  | 84   | 1256580  | 38.40 | ug/L   | 93     |
| 10) trans-1,2-Dichloroethene  | 7.96  | 96   | 1461616  | 36.74 | ug/L m | 0      |
| 12) 1,1-Dichloroethane        | 8.74  | 63   | 2990291  | 37.74 | ug/L m | 0      |
| 13) 2,2-Dichloropropane       | 9.82  | 77   | 2784319  | 40.46 | ug/L   | 96     |
| 14) cis-1,2-Dichloroethene    | 9.83  | 96   | 1387660  | 36.91 | ug/L   | 95     |
| 16) Bromochloromethane        | 10.23 | 128  | 511825   | 34.71 | ug/L # | 88     |
| 17) Chloroform                | 10.39 | 83   | 2839115  | 40.56 | ug/L   | 100    |
| 18) 1,1,1-Trichloroethane     | 10.71 | 97   | 3074057  | 41.62 | ug/L   | 100    |
| 19) Carbon tetrachloride      | 11.02 | 117  | 2848789  | 39.26 | ug/L   | 100    |
| 20) 1,1-Dichloropropene       | 11.00 | 75   | 2646146  | 38.33 | ug/L   | 97     |
| 21) Benzene                   | 11.35 | 78   | 4715775  | 37.92 | ug/L   | 98     |
| 22) 1,2-Dichloroethane        | 11.36 | 62   | 1219926  | 43.99 | ug/L   | 100    |
| 23) Trichloroethene           | 12.48 | 95   | 2092020  | 37.94 | ug/L   | 92     |
| 24) 1,2-Dichloropropane       | 12.83 | 63   | 1588792  | 37.22 | ug/L   | 100    |
| 25) Dibromomethane            | 13.02 | 93   | 670030   | 39.16 | ug/L   | 97     |
| 26) Bromodichloromethane      | 13.30 | 83   | 2234626  | 40.92 | ug/L m | 85     |
| 27) cis-1,3-Dichloropropene   | 14.05 | 75   | 1927356  | 39.84 | ug/L   | 97     |
| 28) Toluene                   | 14.64 | 92   | 3353871  | 40.17 | ug/L   | 99     |
| 29) trans-1,3-Dichloropropene | 14.98 | 75   | 1365218  | 41.56 | ug/L   | 97     |
| 30) 1,1,2-Trichloroethane     | 15.30 | 83   | 640167   | 39.86 | ug/L   | 96     |
| 31) Tetrachloroethene         | 15.60 | 166  | 2106507  | 35.54 | ug/L   | 98     |
| 32) 1,3-Dichloropropane       | 15.58 | 76   | 1225150  | 38.86 | ug/L   | 98     |
| 33) Dibromochloromethane      | 15.99 | 129  | 1250833  | 37.25 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.19 | 107  | 896884   | 39.43 | ug/L   | 97     |
| 35) Chlorobenzene             | 17.07 | 112  | 3558221  | 37.53 | ug/L m | 0      |
| 36) 1,1,1,2-Tetrachloroethane | 17.20 | 131  | 1437465  | 36.33 | ug/L m | 0      |
| 37) Ethylbenzene              | 17.26 | 91   | 7148780  | 40.68 | ug/L   | 98     |
| 38) Xylene (para & meta)      | 17.47 | 106  | 5046126  | 77.25 | ug/L   | 90     |
| 39) Xylene (Ortho)            | 18.17 | 106  | 2266726  | 39.03 | ug/L   | 90     |
| 40) Styrene                   | 18.19 | 104  | 3590160  | 39.52 | ug/L   | 90     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpcchem\1\data\c8241.d  
Acq On : 26 May 95 1:00 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: May 26 15:35 1995

052  
Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.51 | 173  | 635283   | 39.62 | ug/L m | 0      |
| 42) Isopropylbenzene           | 18.83 | 105  | 7325849  | 39.99 | ug/L m | 45     |
| 44) Bromobenzene               | 19.37 | 156  | 1361555  | 36.68 | ug/L # | 90     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.32 | 83   | 689989   | 42.21 | ug/L m | 0      |
| 46) 1,2,3-Trichloropropane     | 19.40 | 75   | 810580   | 39.16 | ug/L   | 97     |
| 47) n-Propylbenzene            | 19.57 | 91   | 9540387  | 40.68 | ug/L   | 98     |
| 48) 2-Chlorotoluene            | 19.73 | 91   | 5352127  | 43.16 | ug/L   | 92     |
| 49) 4-Chlorotoluene            | 19.92 | 91   | 6372870  | 42.85 | ug/L m | 98     |
| 50) 1,3,5-Trimethylbenzene     | 19.89 | 105  | 6077505  | 40.88 | ug/L   | 95     |
| 51) tert-Butylbenzene          | 20.48 | 119  | 6270177  | 38.26 | ug/L   | 87     |
| 52) 1,2,4-Trimethylbenzene     | 20.56 | 105  | 5551247  | 39.38 | ug/L   | 93     |
| 53) sec-Butylbenzene           | 20.88 | 105  | 9291157  | 39.79 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.08 | 146  | 2769985  | 36.27 | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.15 | 119  | 6986951  | 38.31 | ug/L   | 95     |
| 56) 1,4-Dichlorobenzene        | 21.08 | 146  | 2761726  | 36.15 | ug/L   | 96     |
| 58) 1,2-Dichlorobenzene        | 21.91 | 146  | 2026169  | 34.77 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.89 | 91   | 7484823  | 40.07 | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.31 | 75   | 186592   | 48.63 | ug/L   | 86     |
| 61) 1,2,4-Trichlorobenzene     | 24.88 | 180  | 1588732  | 39.22 | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.23 | 225  | 1808777  | 43.53 | ug/L   | 98     |
| 63) Naphthalene                | 25.32 | 128  | 1420685  | 37.25 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.81 | 180  | 1119071  | 40.70 | ug/L   | 100    |
| 65) Methyl-tert butyl ether    | 8.00  | 73   | 1658962  | 46.44 | ug/L # | 100    |
| 66) tert-Butyl Alcohol         | 7.77  | 59   | 51615    | 14.45 | ug/L   | 100    |

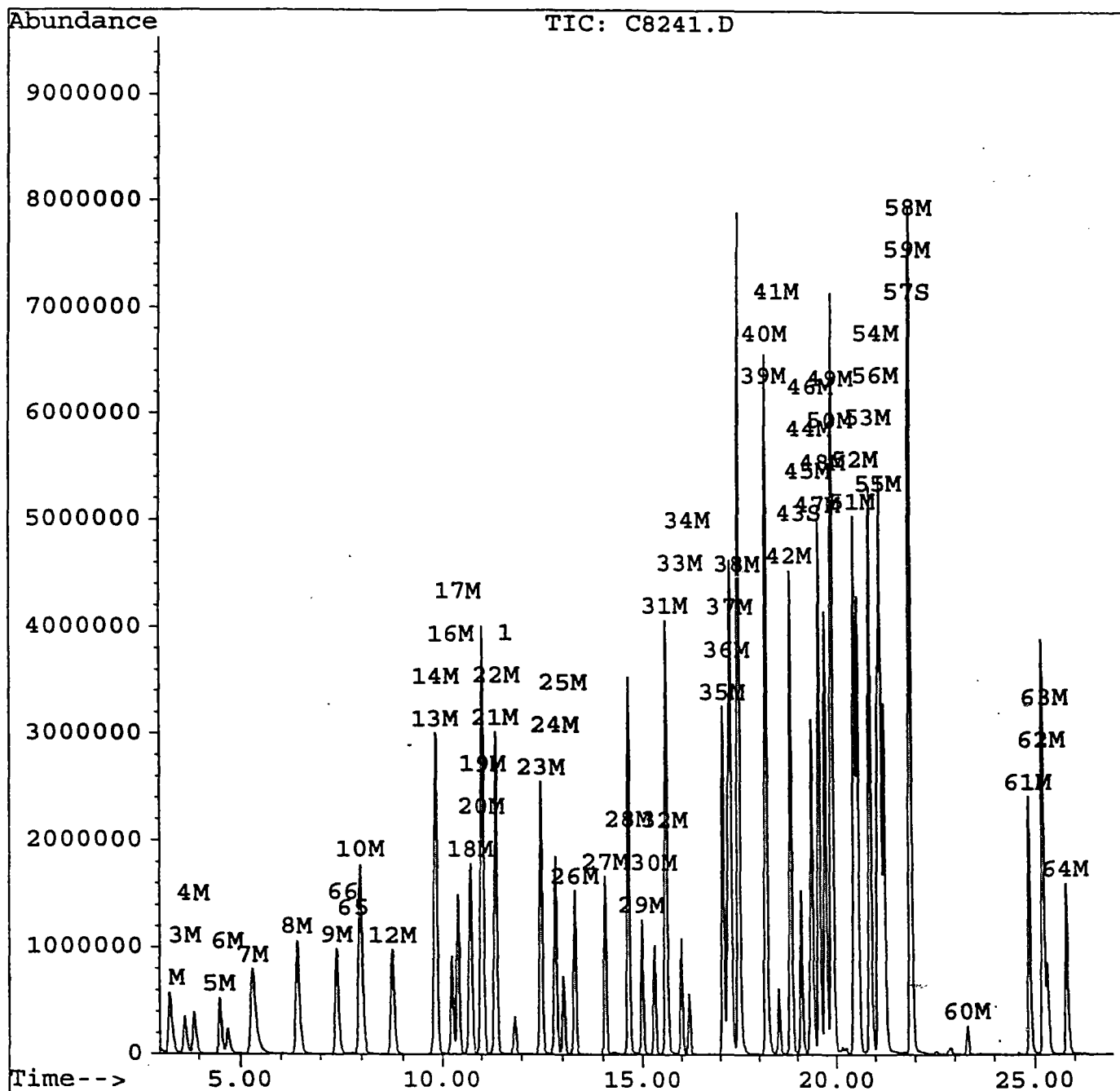
(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8241.d  
Acq On : 26 May 95 1:00 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: May 26 15:35 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

053

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Fri May 26 16:05:53 1995  
Response via : Multiple Level Calibration



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

054

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab File ID: C8651.D BFB Injection Date: 06/26/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1349  
 GC Column DB-62 ID: 0.53 (mm) Heated Purge: ( Y / N ) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 19.0                 |
| 75  | 30.0 - 60.0% of mass 95            | 45.9                 |
| 95  | Base peak, 100% relative abundance | 100.0                |
| 96  | 5.0 - 9.0% of mass 95              | 6.8                  |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 ) 1        |
| 174 | Greater than 50.0% of mass 95      | 60.1                 |
| 175 | 5.0 - 9.0% of mass 174             | 4.0 ( 6.7 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 58.6 ( 97.5 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.7 ( 6.3 ) 2        |

1-Value is % mass 174

2-Value is % mass 176

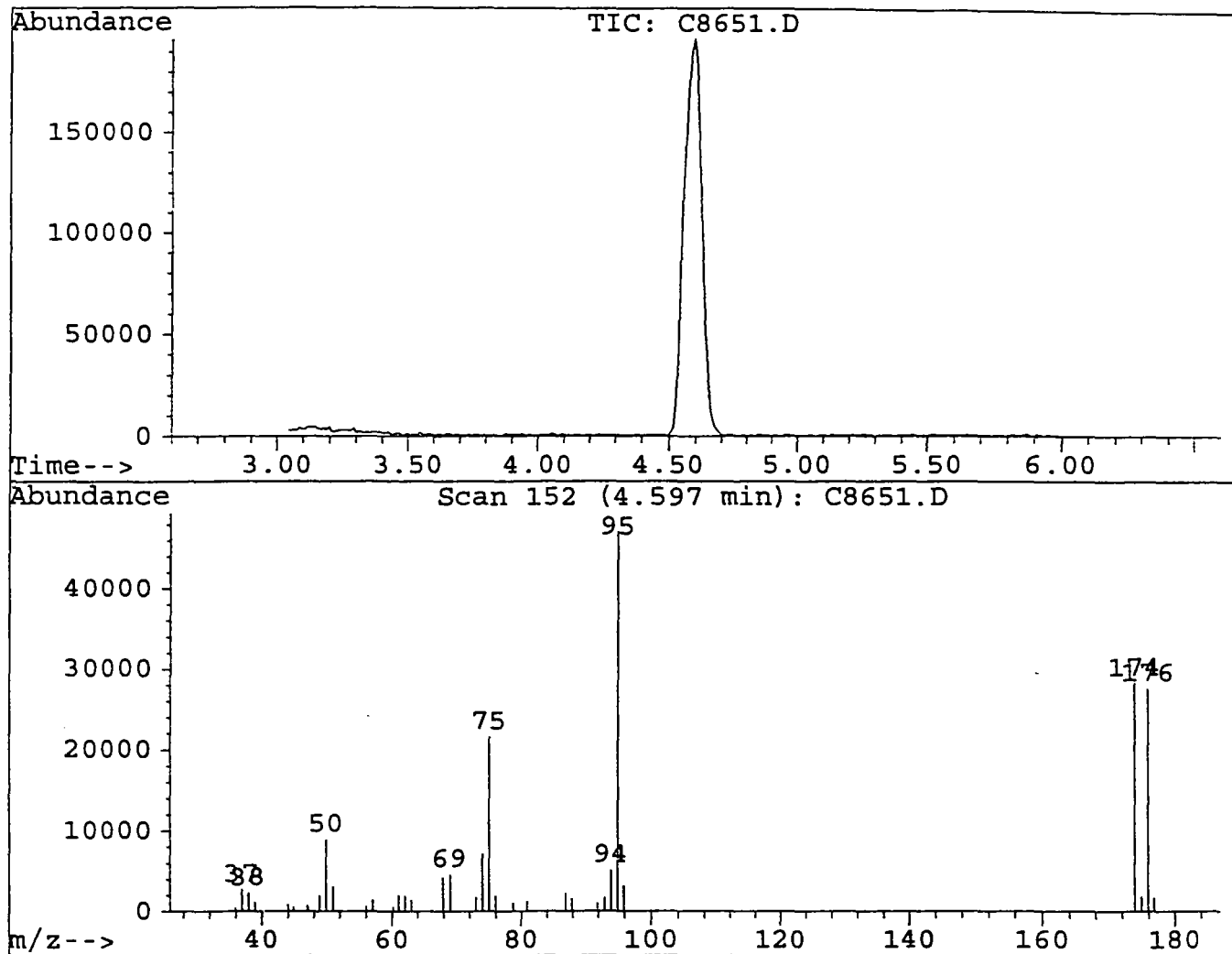
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| CLIENT<br>SAMPLE ID | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|---------------------|------------------|----------------|------------------|------------------|
| 01                  | 4 PPB STANDARD   | C8652.D        | 06/26/95         | 1412             |
| 02                  | 10 PPB STANDARD  | C8653.D        | 06/26/95         | 1450             |
| 03                  | 20 PPB STANDARD  | C8654.D        | 06/26/95         | 1534             |
| 04                  | 30 PPB STANDARD  | C8655.D        | 06/26/95         | 1635             |
| 05                  | 40 PPB STANDARD  | C8656.D        | 06/26/95         | 1711             |
| 06                  |                  |                |                  |                  |
| 07                  |                  |                |                  |                  |
| 08                  |                  |                |                  |                  |
| 09                  |                  |                |                  |                  |
| 10                  |                  |                |                  |                  |
| 11                  |                  |                |                  |                  |
| 12                  |                  |                |                  |                  |
| 13                  |                  |                |                  |                  |
| 14                  |                  |                |                  |                  |
| 15                  |                  |                |                  |                  |
| 16                  |                  |                |                  |                  |
| 17                  |                  |                |                  |                  |
| 18                  |                  |                |                  |                  |
| 19                  |                  |                |                  |                  |
| 20                  |                  |                |                  |                  |
| 21                  |                  |                |                  |                  |
| 22                  |                  |                |                  |                  |

Data File : D:\HPCHEM\1\DATA\C8651.D  
 Acq On : 26 Jun 95 1:49 pm  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 152

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 19.0      | 8949    | PASS             |
| 75          | 95           | 30           | 60           | 45.9      | 21648   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 47168   | PASS             |
| 96          | 95           | 5            | 9            | 6.8       | 3184    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 60.1      | 28352   | PASS             |
| 175         | 174          | 5            | 9            | 6.7       | 1888    | PASS             |
| 176         | 174          | 95           | 101          | 97.5      | 27656   | PASS             |
| 177         | 176          | 5            | 9            | 6.3       | 1739    | PASS             |

| m/z   | abund. | m/z   | abund. | m/z    | abund. | m/z    | abund. |
|-------|--------|-------|--------|--------|--------|--------|--------|
| 35.95 | 630    | 56.95 | 1450   | 78.70  | 1099   | 175.90 | 27656  |
| 36.95 | 2704   | 60.10 | 636    | 80.90  | 1240   | 176.80 | 1739   |
| 37.95 | 2267   | 61.00 | 2061   | 86.90  | 2206   |        |        |
| 38.95 | 1115   | 62.00 | 1896   | 87.85  | 1606   |        |        |
| 44.00 | 852    | 63.00 | 1468   | 91.85  | 1038   |        |        |
| 44.90 | 560    | 67.90 | 4286   | 92.95  | 1720   |        |        |
| 47.00 | 730    | 68.95 | 4580   | 93.95  | 5132   |        |        |
| 48.90 | 1993   | 72.95 | 1787   | 94.95  | 47168  |        |        |
| 49.90 | 8949   | 73.95 | 7174   | 95.85  | 3184   |        |        |
| 50.95 | 3073   | 74.95 | 21648  | 173.90 | 28352  |        |        |
| 55.95 | 697    | 75.95 | 2011   | 174.90 | 1888   |        |        |

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8652.D 10 =C8653.D 20 =C8654.D  
 30 =C8655.D 40 =C8656.D

| Compound       |                       | 4     | 10    | 20    | 30    | 40    | Avg    | %RSD  |
|----------------|-----------------------|-------|-------|-------|-------|-------|--------|-------|
| -----ISTD----- |                       |       |       |       |       |       |        |       |
| 1)             | Fluorobenzene         |       |       |       |       |       |        |       |
| 2) M           | Dichlorodifluorometha | 0.386 | 0.381 | 0.373 | 0.356 | 0.365 | 0.372  | 3.20  |
| 3) M           | Chloromethane         | 0.172 | 0.168 | 0.164 | 0.158 | 0.168 | 0.166  | 3.12  |
| 4) M           | Vinyl chloride        | 0.206 | 0.219 | 0.216 | 0.208 | 0.212 | 0.212  | 2.44  |
| 5) M           | Bromomethane          | 0.191 | 0.182 | 0.162 | 0.156 | 0.158 | 0.170  | 9.36  |
| 6) M           | Chloroethane          | 0.131 | 0.139 | 0.136 | 0.099 | 0.090 | 0.119  | 19.20 |
| 7) M           | Trichlorofluoromethan | 0.581 | 0.604 | 0.604 | 0.591 | 0.588 | 0.594  | 1.70  |
| 8) M           | 1,1-Dichloroethene    | 0.247 | 0.259 | 0.257 | 0.254 | 0.256 | 0.255  | 1.78  |
| 9) M           | Methylene chloride    |       | 0.342 | 0.273 | 0.243 | 0.231 | 0.272  | 18.36 |
| 10) M          | trans-1,2-Dichloroeth | 0.266 | 0.281 | 0.269 | 0.268 | 0.270 | 0.271  | 2.16  |
| 1)             | Hexane                |       |       |       |       |       | 0.000# | -1.00 |
| 12) M          | 1,1-Dichloroethane    | 0.474 | 0.485 | 0.472 | 0.470 | 0.473 | 0.475  | 1.25  |
| 13) M          | 2,2-Dichloropropane   | 0.514 | 0.502 | 0.504 | 0.480 | 0.469 | 0.494  | 3.74  |
| 14) M          | cis-1,2-Dichloroethen | 0.277 | 0.273 | 0.260 | 0.257 | 0.259 | 0.265  | 3.44  |
| 15)            | 2-Butanone            |       |       |       |       |       | 0.000# | -1.00 |
| 16) M          | Bromochloromethane    | 0.104 | 0.107 | 0.105 | 0.107 | 0.105 | 0.105  | 1.29  |
| 17) M          | Chloroform            | 0.520 | 0.519 | 0.502 | 0.508 | 0.507 | 0.511  | 1.52  |
| 18) M          | 1,1,1-Trichloroethane | 0.567 | 0.583 | 0.568 | 0.566 | 0.569 | 0.571  | 1.23  |
| 19) M          | Carbon tetrachloride  | 0.539 | 0.548 | 0.540 | 0.539 | 0.537 | 0.541  | 0.83  |
| 20) M          | 1,1-Dichloropropene   | 0.455 | 0.465 | 0.452 | 0.446 | 0.439 | 0.451  | 2.18  |
| 21) M          | Benzene               | 0.812 | 0.826 | 0.806 | 0.805 | 0.803 | 0.810  | 1.13  |
| 22) M          | 1,2-Dichloroethane    | 0.211 | 0.207 | 0.199 | 0.204 | 0.206 | 0.205  | 2.04  |
| 23) M          | Trichloroethene       | 0.390 | 0.398 | 0.391 | 0.386 | 0.385 | 0.390  | 1.23  |
| 24) M          | 1,2-Dichloropropane   | 0.261 | 0.262 | 0.255 | 0.255 | 0.255 | 0.258  | 1.43  |
| 25) M          | Dibromomethane        | 0.134 | 0.133 | 0.130 | 0.133 | 0.130 | 0.132  | 1.46  |
| 26) M          | Bromodichloromethane  | 0.425 | 0.418 | 0.413 | 0.421 | 0.411 | 0.418  | 1.39  |
| 27) M          | cis-1,3-Dichloroprope | 0.341 | 0.340 | 0.338 | 0.341 | 0.332 | 0.339  | 1.04  |
| 28) M          | Toluene               | 0.606 | 0.610 | 0.597 | 0.601 | 0.597 | 0.602  | 0.93  |
| 29) M          | trans-1,3-Dichloropro | 0.249 | 0.241 | 0.244 | 0.247 | 0.238 | 0.244  | 1.80  |
| 30) M          | 1,1,2-Trichloroethane | 0.120 | 0.118 | 0.115 | 0.119 | 0.116 | 0.118  | 1.95  |
| 31) M          | Tetrachloroethene     | 0.424 | 0.418 | 0.414 | 0.416 | 0.409 | 0.416  | 1.32  |
| 32) M          | 1,3-Dichloropropane   | 0.228 | 0.224 | 0.216 | 0.224 | 0.215 | 0.222  | 2.52  |
| 33) M          | Dibromochloromethane  | 0.255 | 0.257 | 0.254 | 0.265 | 0.257 | 0.258  | 1.65  |
| 34) M          | 1,2-Dibromomethane    | 0.174 | 0.179 | 0.173 | 0.181 | 0.176 | 0.177  | 1.90  |
| 35) M          | Chlorobenzene         | 0.688 | 0.683 | 0.678 | 0.689 | 0.673 | 0.683  | 1.06  |
| 36) M          | 1,1,1,2-Tetrachloroet | 0.308 | 0.293 | 0.295 | 0.299 | 0.295 | 0.299  | 1.80  |
| 37) M          | Ethylbenzene          | 1.328 | 1.309 | 1.285 | 1.287 | 1.275 | 1.297  | 1.65  |
| 38) M          | Xylene (para & meta)  | 0.484 | 0.473 | 0.467 | 0.470 | 0.456 | 0.471  | 2.23  |
| 39) M          | Xylene (Ortho)        | 0.438 | 0.436 | 0.425 | 0.432 | 0.420 | 0.430  | 1.79  |
| 40) M          | Styrene               | 0.676 | 0.673 | 0.659 | 0.671 | 0.654 | 0.668  | 1.61  |
| 41) M          | Bromoform             | 0.132 | 0.136 | 0.134 | 0.142 | 0.140 | 0.137  | 2.96  |
| 42) M          | Isopropylbenzene      | 1.369 | 1.360 | 1.343 | 1.351 | 1.328 | 1.350  | 1.17  |
| 43) S          | 4-Bromofluorobenzene  | 0.213 | 0.532 | 0.525 | 0.534 | 0.531 | 0.467  | 30.39 |

(#) = Out of Range  
 VCA524.M

Mon Jun 26 18:49:12 1995

VOA

Page 1



Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8652.D 10 =C8653.D 20 =C8654.D  
 30 =C8655.D 40 =C8656.D

|     | Compound                | 4     | 10    | 20    | 30    | 40    | Avg   | %RSD  |
|-----|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 44) | M Bromobenzene          | 0.280 | 0.289 | 0.283 | 0.292 | 0.284 | 0.286 | 1.60  |
| 45) | M 1,1,2,2-Tetrachloroet | 0.163 | 0.148 | 0.143 | 0.145 | 0.140 | 0.148 | 6.03  |
| 46) | M 1,2,3-Trichloropropan | 0.149 | 0.152 | 0.148 | 0.155 | 0.147 | 0.150 | 2.28  |
| 47) | M n-Propylbenzene       | 1.799 | 1.762 | 1.749 | 1.735 | 1.728 | 1.755 | 1.61  |
| 48) | M 2-Chlorotoluene       | 1.093 | 1.052 | 1.010 | 1.032 | 1.039 | 1.045 | 2.95  |
| 49) | M 4-Chlorotoluene       | 1.211 | 1.202 | 1.149 | 1.156 | 1.152 | 1.174 | 2.53  |
| 50) | M 1,3,5-Trimethylbenzen | 1.151 | 1.163 | 1.126 | 1.139 | 1.119 | 1.140 | 1.58  |
| 51) | M tert-Butylbenzene     | 1.268 | 1.250 | 1.234 | 1.241 | 1.224 | 1.243 | 1.35  |
| 52) | M 1,2,4-Trimethylbenzen | 1.101 | 1.104 | 1.087 | 1.100 | 1.077 | 1.094 | 1.03  |
| 53) | M sec-Butylbenzene      | 1.787 | 1.745 | 1.713 | 1.725 | 1.696 | 1.733 | 2.02  |
| 54) | M 1,3-Dichlorobenzene   | 0.590 | 0.582 | 0.561 | 0.571 | 0.566 | 0.574 | 2.07  |
| 55) | M 4-Isopropyltoluene    | 1.391 | 1.391 | 1.377 | 1.377 | 1.359 | 1.379 | 0.96  |
| 56) | M 1,4-Dichlorobenzene   | 0.590 | 0.572 | 0.567 | 0.579 | 0.561 | 0.574 | 1.95  |
| 57) | S 1,2-Dichlorobenzene-d | 0.281 | 0.276 | 0.271 | 0.275 | 0.270 | 0.275 | 1.61  |
| 58) | M 1,2-Dichlorobenzene   | 0.456 | 0.450 | 0.434 | 0.441 | 0.425 | 0.441 | 2.31  |
| 59) | M n-Butylbenzene        | 1.421 | 1.425 | 1.396 | 1.372 | 1.347 | 1.392 | 2.37  |
| 60) | M 1,2-Dibromo-3-chlorop | 0.032 | 0.034 | 0.034 | 0.036 | 0.036 | 0.034 | 5.08  |
| 61) | M 1,2,4-Trichlorobenzen | 0.360 | 0.349 | 0.340 | 0.352 | 0.347 | 0.350 | 2.04  |
| 62) | M Hexachlorobutadiene   | 0.386 | 0.383 | 0.371 | 0.368 | 0.373 | 0.376 | 2.07  |
| 63) | M Naphthalene           | 0.324 | 0.324 | 0.309 | 0.334 | 0.312 | 0.321 | 3.14  |
| 64) | M 1,2,3-Trichlorobenzen | 0.259 | 0.262 | 0.253 | 0.259 | 0.258 | 0.258 | 1.20  |
| 65) | M Methyl-tert butyl eth | 0.336 | 0.322 | 0.305 | 0.311 | 0.307 | 0.316 | 3.99  |
| 66) | M tert-Butyl Alcohol    | 0.006 | 0.009 | 0.009 | 0.010 | 0.010 | 0.009 | 18.64 |

Data File : d:\hpcchem\1\data\c8652.d  
 Acq On : 26 Jun 95 2:12 pm  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 14:40 1995

Vial: 2 059  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.87 | 96   | 224089   | 5.00 | ug/L  | 0.03     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.13 | 95   | 47774    | 2.14 | ug/L  | 42.74%    |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 25203    | 2.47 | ug/L  | 49.36%    |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units  | Qvalue |
|-------------------------------|-------|------|----------|------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.24  | 85   | 69175    | 3.89 | ug/L   | 93     |
| 3) Chloromethane              | 3.59  | 50   | 30867    | 2.95 | ug/L   | 96     |
| 4) Vinyl chloride             | 3.84  | 62   | 37007    | 3.14 | ug/L   | 91     |
| 5) Bromomethane               | 4.51  | 94   | 34305    | 4.31 | ug/L   | 97     |
| 6) Chloroethane               | 4.73  | 64   | 23444    | 3.39 | ug/L   | 94     |
| 7) Trichlorofluoromethane     | 5.34  | 101  | 104207   | 3.96 | ug/L   | 98     |
| 8) 1,1-Dichloroethene         | 6.44  | 96   | 44308    | 3.83 | ug/L # | 84     |
| 9) Methylene chloride         | 7.41  | 84   | 111435   | 9.08 | ug/L # | 86     |
| 10) trans-1,2-Dichloroethene  | 7.99  | 96   | 47768    | 3.91 | ug/L # | 83     |
| 12) 1,1-Dichloroethane        | 8.77  | 63   | 84913    | 3.47 | ug/L   | 98     |
| 13) 2,2-Dichloropropane       | 9.85  | 77   | 92210    | 3.85 | ug/L   | 95     |
| 14) cis-1,2-Dichloroethene    | 9.85  | 96   | 49613    | 4.31 | ug/L # | 83     |
| 16) Bromochloromethane        | 10.27 | 128  | 13647    | 4.62 | ug/L # | 72     |
| 17) Chloroform                | 10.43 | 83   | 93211    | 4.06 | ug/L   | 98     |
| 18) 1,1,1-Trichloroethane     | 10.76 | 97   | 101575   | 4.00 | ug/L   | 95     |
| 19) Carbon tetrachloride      | 11.06 | 117  | 96580    | 4.10 | ug/L   | 99     |
| 20) 1,1-Dichloropropene       | 11.04 | 75   | 81585    | 3.68 | ug/L   | 96     |
| 21) Benzene                   | 11.40 | 78   | 145582   | 3.73 | ug/L   | 95     |
| 22) 1,2-Dichloroethane        | 11.40 | 62   | 37823    | 3.95 | ug/L   | 90     |
| 23) Trichloroethene           | 12.52 | 95   | 69879    | 4.04 | ug/L   | 92     |
| 24) 1,2-Dichloropropane       | 12.87 | 63   | 46748    | 3.66 | ug/L   | 94     |
| 25) Dibromomethane            | 13.07 | 93   | 24054    | 4.65 | ug/L   | 94     |
| 26) Bromodichloromethane      | 13.34 | 83   | 76253    | 4.30 | ug/L   | 97     |
| 27) cis-1,3-Dichloropropene   | 14.10 | 75   | 61134    | 3.99 | ug/L   | 100    |
| 28) Toluene                   | 14.68 | 92   | 103604   | 3.92 | ug/L   | 98     |
| 29) trans-1,3-Dichloropropene | 15.02 | 75   | 44645    | 4.21 | ug/L   | 95     |
| 30) 1,1,2-Trichloroethane     | 15.34 | 83   | 21596    | 4.36 | ug/L   | 94     |
| 31) Tetrachloroethene         | 15.64 | 166  | 76065    | 4.38 | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.63 | 76   | 40918    | 4.17 | ug/L   | 99     |
| 33) Dibromochloromethane      | 16.03 | 129  | 45734    | 4.75 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 31157    | 4.56 | ug/L   | 99     |
| 35) Chlorobenzene             | 17.12 | 112  | 103274   | 4.27 | ug/L   | 95     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 55209    | 4.82 | ug/L   | 97     |
| 37) Ethylbenzene              | 17.30 | 91   | 233157   | 4.08 | ug/L   | 99     |
| 38) Xylene (para & meta)      | 17.51 | 106  | 173387   | 8.27 | ug/L   | 100    |
| 39) Xylene (Ortho)            | 18.21 | 106  | 73570    | 4.24 | ug/L   | 91     |
| 40) Styrene                   | 18.23 | 104  | 101233   | 4.22 | ug/L   | 99     |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8652.d  
Acq On : 26 Jun 95 2:12 pm  
Sample : 4 PPB STANDARD  
Misc :  
Quant Time: Jun 26 14:40 1995

Vial: 2 060  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration

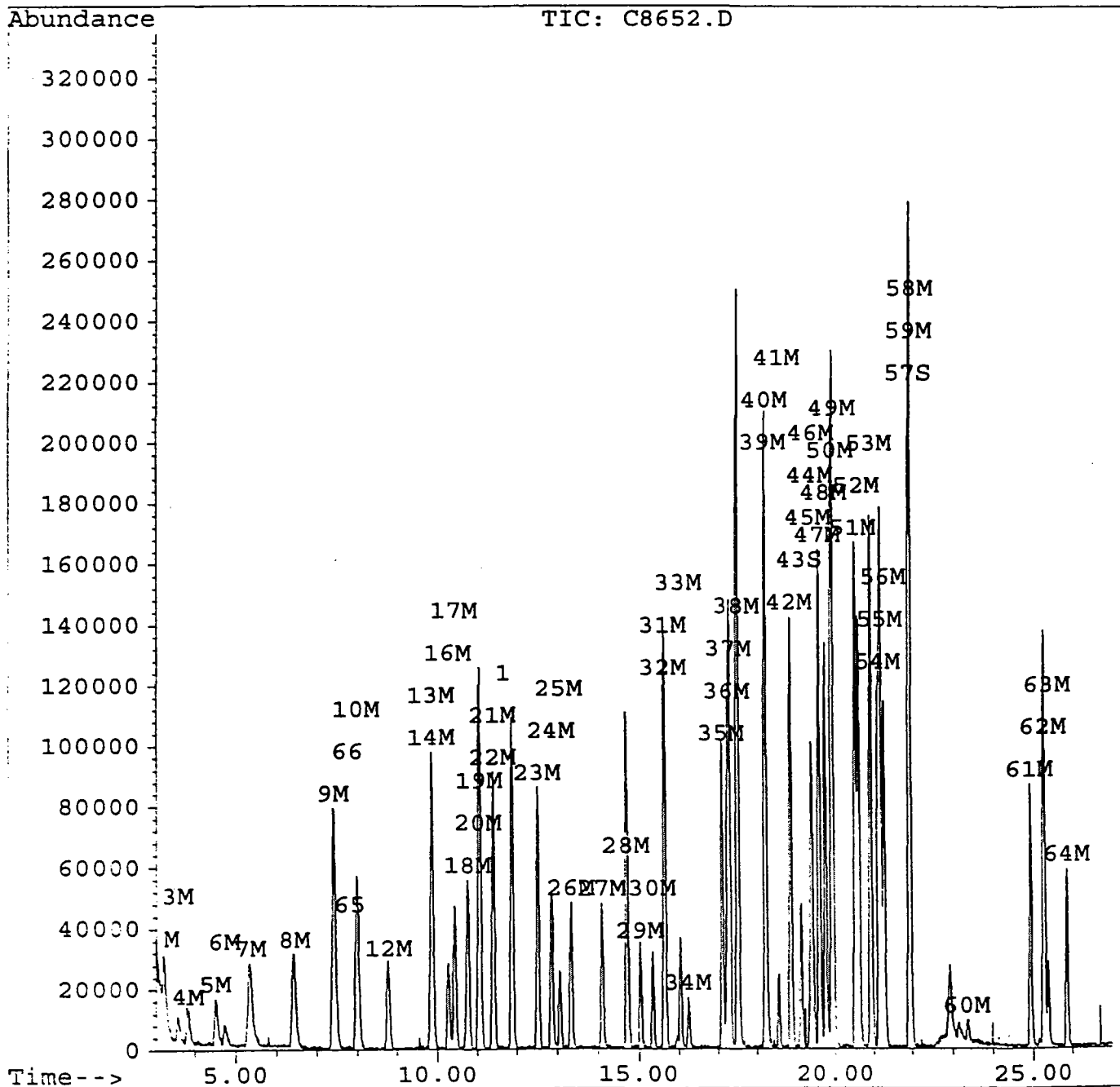
| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 23749    | 5.03 | ug/L   | 95     |
| 42) Isopropylbenzene           | 18.87 | 105  | 245372   | 4.12 | ug/L   | 92     |
| 44) Bromobenzene               | 19.41 | 156  | 50264    | 4.68 | ug/L   | 94     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 29146    | 5.52 | ug/L   | 93     |
| 46) 1,2,3-Trichloropropane     | 19.43 | 75   | 26778    | 4.17 | ug/L # | 85     |
| 47) n-Propylbenzene            | 19.61 | 91   | 322582   | 4.16 | ug/L   | 95     |
| 48) 2-Chlorotoluene            | 19.76 | 91   | 195929   | 4.55 | ug/L   | 97     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 217040   | 4.25 | ug/L   | 89     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 206401   | 4.18 | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 227230   | 4.44 | ug/L   | 97     |
| 52) 1,2,4-Trimethylbenzene     | 20.60 | 105  | 197300   | 4.36 | ug/L   | 100    |
| 53) sec-Butylbenzene           | 20.92 | 105  | 320389   | 4.22 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 105858   | 4.83 | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 249354   | 4.40 | ug/L   | 96     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 105830   | 4.87 | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 81762    | 5.01 | ug/L   | 92     |
| 59) n-Butylbenzene             | 21.93 | 91   | 254788   | 4.20 | ug/L   | 98     |
| 60) 1,2-Dibromo-3-chloropropan | 23.35 | 75   | 5747     | 4.28 | ug/L   | 81     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 64460    | 5.37 | ug/L   | 96     |
| 62) Hexachlorobutadiene        | 25.28 | 225  | 69136    | 4.77 | ug/L   | 98     |
| 63) Naphthalene                | 25.37 | 128  | 58165    | 5.60 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 46363    | 5.54 | ug/L   | 97     |
| 65) Methyl-tert butyl ether    | 8.02  | 73   | 60179    | 4.60 | ug/L   | 98     |
| 66) tert-Butyl Alcohol         | 7.98  | 59   | 1112     | 5.54 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8652.d  
Acq On : 26 Jun 95 2:12 pm  
Sample : 4 PPB STANDARD  
Misc :  
Quant Time: Jun 26 14:40 1995

Vial: 2 061  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8653.d  
 Acq On : 26 Jun 95 2:50 pm  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 18:47 1995

Vial: 3 062  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.90 | 96   | 363960   | 5.00 | ug/L  | 0.06      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.13 | 95   | 196151   | 5.33 | ug/L  | 106.59%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 101918   | 6.06 | ug/L  | 121.24%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 283838   | 9.60  | ug/L  | 100    |
| 3) Chloromethane              | 3.72  | 50   | 124227   | 7.22  | ug/L  | 94     |
| 4) Vinyl chloride             | 3.94  | 62   | 161318   | 8.31  | ug/L  | 100    |
| 5) Bromomethane               | 4.59  | 94   | 134314   | 10.24 | ug/L  | 98     |
| 6) Chloroethane               | 4.83  | 64   | 102594   | 9.02  | ug/L  | 99     |
| 7) Trichlorofluoromethane     | 5.42  | 101  | 443972   | 10.29 | ug/L  | 99     |
| 8) 1,1-Dichloroethene         | 6.50  | 96   | 191191   | 10.04 | ug/L  | # 84   |
| 9) Methylene chloride         | 7.47  | 84   | 252706   | 12.51 | ug/L  | m 89   |
| 10) trans-1,2-Dichloroethene  | 8.04  | 96   | 207478   | 10.31 | ug/L  | # 85   |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 357923   | 8.90  | ug/L  | 100    |
| 13) 2,2-Dichloropropane       | 9.89  | 77   | 370413   | 9.39  | ug/L  | 99     |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 201584   | 10.63 | ug/L  | # 87   |
| 16) Bromochloromethane        | 10.31 | 128  | 73809    | 11.86 | ug/L  | # 68   |
| 17) Chloroform                | 10.46 | 83   | 383089   | 10.15 | ug/L  | 97     |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 433219   | 10.29 | ug/L  | 94     |
| 19) Carbon tetrachloride      | 11.10 | 117  | 404572   | 10.43 | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 343108   | 9.40  | ug/L  | 96     |
| 21) Benzene                   | 11.43 | 78   | 603294   | 9.43  | ug/L  | 98     |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 152455   | 9.67  | ug/L  | 100    |
| 23) Trichloroethene           | 12.54 | 95   | 293351   | 10.30 | ug/L  | 93     |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 193677   | 9.21  | ug/L  | 97     |
| 25) Dibromomethane            | 13.09 | 93   | 93220    | 11.53 | ug/L  | 96     |
| 26) Bromodichloromethane      | 13.35 | 83   | 303703   | 10.57 | ug/L  | 95     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 251017   | 9.94  | ug/L  | 92     |
| 28) Toluene                   | 14.70 | 92   | 450259   | 9.86  | ug/L  | 99     |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 173084   | 10.21 | ug/L  | 94     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 87287    | 10.71 | ug/L  | 95     |
| 31) Tetrachloroethene         | 15.66 | 166  | 303584   | 10.79 | ug/L  | 99     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 165333   | 10.24 | ug/L  | 99     |
| 33) Dibromochloromethane      | 16.04 | 129  | 183730   | 11.96 | ug/L  | 97     |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 131879   | 11.73 | ug/L  | 95     |
| 35) Chlorobenzene             | 17.11 | 112  | 503050   | 10.69 | ug/L  | 95     |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 219959   | 11.65 | ug/L  | 98     |
| 37) Ethylbenzene              | 17.31 | 91   | 965672   | 10.05 | ug/L  | 99     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 705403   | 20.44 | ug/L  | 98     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 322067   | 10.55 | ug/L  | 97     |
| 40) Styrene                   | 18.24 | 104  | 500496   | 10.53 | ug/L  | 98     |

(#) = qualifier out of range (m) = manual integration  
 c8653.d VOA524.M Mon Jun 26 18:52:01 1995

VOA

Page 1

## Quantitation Report

Data File : d:\hpchem\1\data\c8653.d  
Acq On : 26 Jun 95 2:50 pm  
Sample : 10 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:47 1995

Vial: 3 063  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 100251   | 12.88 | ug/L   | 95     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1003904  | 10.23 | ug/L   | 93     |
| 44) Bromobenzene               | 19.42 | 156  | 213131   | 12.04 | ug/L # | 88     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 108980   | 12.53 | ug/L   | 90     |
| 46) 1,2,3-Trichloropropane     | 19.43 | 75   | 112509   | 10.65 | ug/L # | 51     |
| 47) n-Propylbenzene            | 19.62 | 91   | 1300401  | 10.18 | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 776614   | 10.96 | ug/L   | 95     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 886677   | 10.54 | ug/L m | 92     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 858128   | 10.56 | ug/L   | 99     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 922128   | 10.94 | ug/L   | 97     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 814433   | 10.94 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 1287414  | 10.31 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 429311   | 11.89 | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 1026323  | 11.00 | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 422281   | 11.80 | ug/L   | 94     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 331822   | 12.34 | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1051727  | 10.52 | ug/L   | 95     |
| 60) 1,2-Dibromo-3-chloropropan | 23.36 | 75   | 24740    | 11.20 | ug/L   | 93     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 257764   | 13.03 | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.26 | 225  | 282368   | 11.84 | ug/L   | 95     |
| 63) Naphthalene                | 25.38 | 128  | 239454   | 13.99 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 192968   | 14.00 | ug/L   | 99     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 237264   | 11.01 | ug/L   | 100    |
| 66) tert-Butyl Alcohol         | 7.80  | 59   | 6372     | 19.29 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8653.d

Acq On : 26 Jun 95 2:50 pm

Sample : 10 PPB STANDARD

Misc :

Quant Time: Jun 26 18:47 1995

Vial: 3 064

Operator: SRK

Inst : 5972 - In

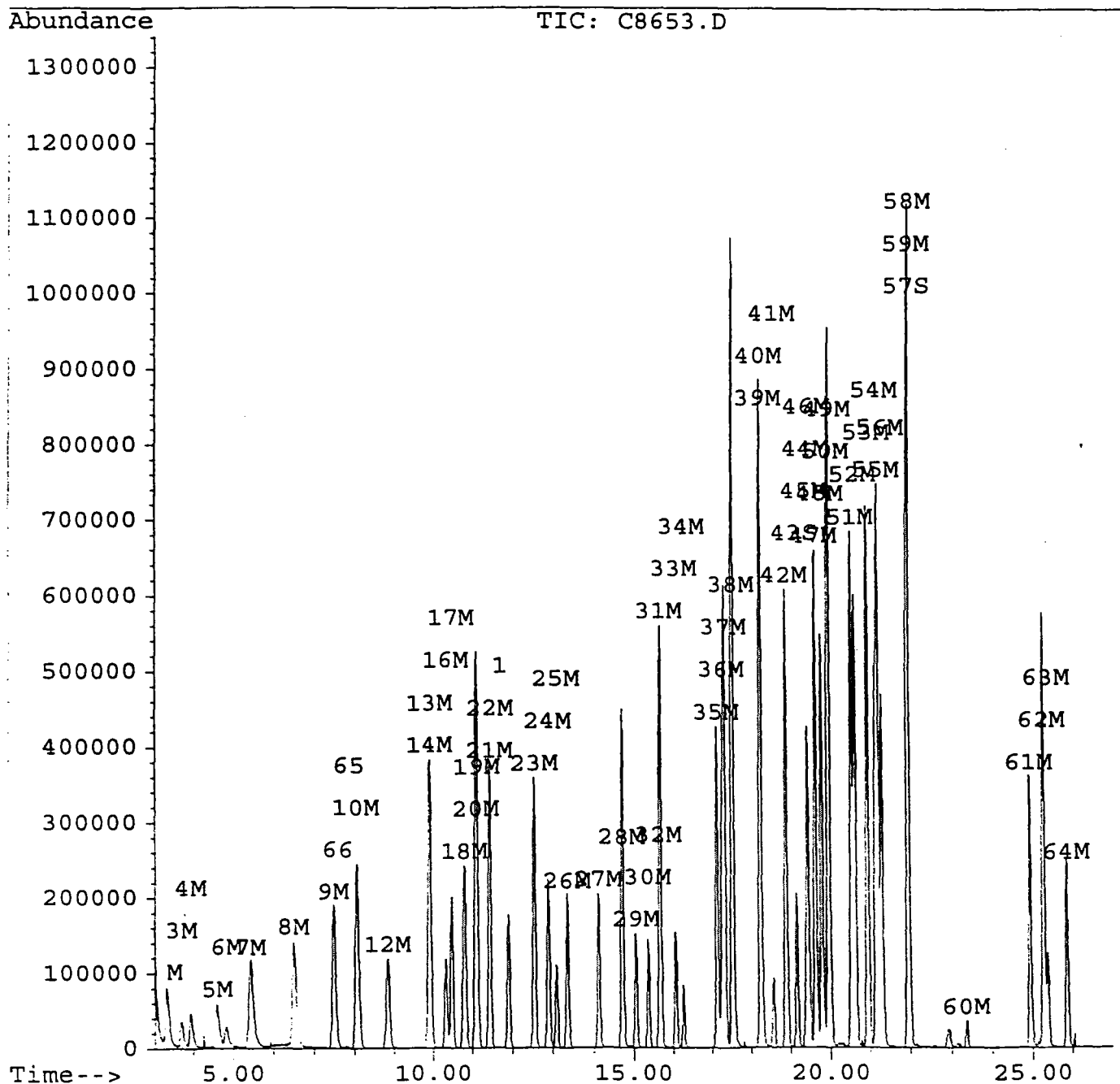
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Mon Jun 26 18:48:37 1995

Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8654.d  
 Acq On : 26 Jun 95 3:34 pm  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 18:38 1995

Vial: 4 065  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.89 | 96   | 363430   | 5.00 | ug/L  | 0.05     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.13 | 95   | 381556   | 10.52 | ug/L  | 210.49%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 197116   | 11.50 | ug/L  | 238.06%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 542001   | 18.81 | ug/L  | 98     |
| 3) Chloromethane              | 3.70  | 50   | 238402   | 14.06 | ug/L  | 99     |
| 4) Vinyl chloride             | 3.93  | 62   | 314181   | 16.44 | ug/L  | 99     |
| 5) Bromomethane               | 4.56  | 94   | 235570   | 18.23 | ug/L  | 93     |
| 6) Chloroethane               | 4.77  | 64   | 198109   | 17.69 | ug/L  | 97     |
| 7) Trichlorofluoromethane     | 5.39  | 101  | 877713   | 20.55 | ug/L  | 100    |
| 8) 1,1-Dichloroethene         | 6.48  | 96   | 372929   | 19.88 | ug/L  | 90     |
| 9) Methylene chloride         | 7.46  | 84   | 397089   | 19.95 | ug/L  | # 84   |
| 10) trans-1,2-Dichloroethene  | 8.03  | 96   | 391770   | 19.77 | ug/L  | 90     |
| 12) 1,1-Dichloroethane        | 8.82  | 63   | 686093   | 17.31 | ug/L  | 98     |
| 13) 2,2-Dichloropropane       | 9.88  | 77   | 732191   | 18.85 | ug/L  | 95     |
| 14) cis-1,2-Dichloroethene    | 9.88  | 96   | 378261   | 20.25 | ug/L  | 90     |
| 16) Bromochloromethane        | 10.29 | 128  | 152376   | 23.28 | ug/L  | # 73   |
| 17) Chloroform                | 10.45 | 83   | 730460   | 19.64 | ug/L  | 97     |
| 18) 1,1,1-Trichloroethane     | 10.78 | 97   | 825891   | 20.06 | ug/L  | 95     |
| 19) Carbon tetrachloride      | 11.09 | 117  | 785602   | 20.55 | ug/L  | 97     |
| 20) 1,1-Dichloropropene       | 11.07 | 75   | 657615   | 18.29 | ug/L  | 95     |
| 21) Benzene                   | 11.42 | 78   | 1172038  | 18.52 | ug/L  | 97     |
| 22) 1,2-Dichloroethane        | 11.42 | 62   | 290009   | 18.67 | ug/L  | 99     |
| 23) Trichloroethene           | 12.53 | 95   | 567916   | 20.24 | ug/L  | 97     |
| 24) 1,2-Dichloropropane       | 12.88 | 63   | 371261   | 17.92 | ug/L  | 97     |
| 25) Dibromomethane            | 13.09 | 93   | 189599   | 22.59 | ug/L  | 94     |
| 26) Bromodichloromethane      | 13.35 | 83   | 600394   | 20.88 | ug/L  | 97     |
| 27) cis-1,3-Dichloropropene   | 14.11 | 75   | 492077   | 19.78 | ug/L  | 94     |
| 28) Toluene                   | 14.69 | 92   | 868102   | 19.31 | ug/L  | 99     |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 354382   | 20.63 | ug/L  | 95     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 167724   | 20.90 | ug/L  | 96     |
| 31) Tetrachloroethene         | 15.66 | 166  | 601551   | 21.35 | ug/L  | 99     |
| 32) 1,3-Dichloropropane       | 15.63 | 76   | 314722   | 19.79 | ug/L  | 99     |
| 33) Dibromochloromethane      | 16.04 | 129  | 369526   | 23.66 | ug/L  | 97     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 251359   | 22.74 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.12 | 112  | 986023   | 21.05 | ug/L  | 97     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 428363   | 23.04 | ug/L  | 98     |
| 37) Ethylbenzene              | 17.31 | 91   | 1868743  | 19.74 | ug/L  | 100    |
| 38) Xylene (para & meta)      | 17.52 | 106  | 1358232  | 39.96 | ug/L  | 98     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 617420   | 20.53 | ug/L  | 99     |
| 40) Styrene                   | 18.23 | 104  | 958161   | 20.56 | ug/L  | 99     |

(#) = qualifier out of range (m) = manual integration



## Quantitation Report

Data File : d:\hpchem\1\data\c8654.d  
Acq On : 26 Jun 95 3:34 pm  
Sample : 20 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:38 1995

Vial: 4 066  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 194881   | 25.43 | ug/L   | 88     |
| 42) Isopropylbenzene           | 18.87 | 105  | 1952985  | 20.20 | ug/L   | 94     |
| 44) Bromobenzene               | 19.41 | 156  | 410948   | 23.58 | ug/L # | 90     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 208347   | 24.31 | ug/L   | 96     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 215742   | 20.73 | ug/L # | 78     |
| 47) n-Propylbenzene            | 19.61 | 91   | 2543193  | 20.22 | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.76 | 91   | 1467640  | 21.02 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1670386  | 20.15 | ug/L   | 87     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 1636992  | 20.45 | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 1793222  | 21.60 | ug/L   | 97     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 1580854  | 21.55 | ug/L   | 95     |
| 53) sec-Butylbenzene           | 20.92 | 105  | 2490496  | 20.24 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 815628   | 22.94 | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 2001847  | 21.78 | ug/L   | 96     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 824320   | 23.38 | ug/L   | 93     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 631052   | 23.82 | ug/L m | 0      |
| 59) n-Butylbenzene             | 21.94 | 91   | 2028690  | 20.60 | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.36 | 75   | 49570    | 22.77 | ug/L   | 91     |
| 61) 1,2,4-Trichlorobenzene     | 24.92 | 180  | 494403   | 25.38 | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 539565   | 22.97 | ug/L   | 94     |
| 63) Naphthalene                | 25.37 | 128  | 449327   | 26.66 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 363003   | 27.10 | ug/L   | 96     |
| 65) Methyl-tert butyl ether    | 8.06  | 73   | 443351   | 20.88 | ug/L   | 97     |
| 66) tert-Butyl Alcohol         | 7.78  | 59   | 12905    | 39.66 | ug/L   | 100    |

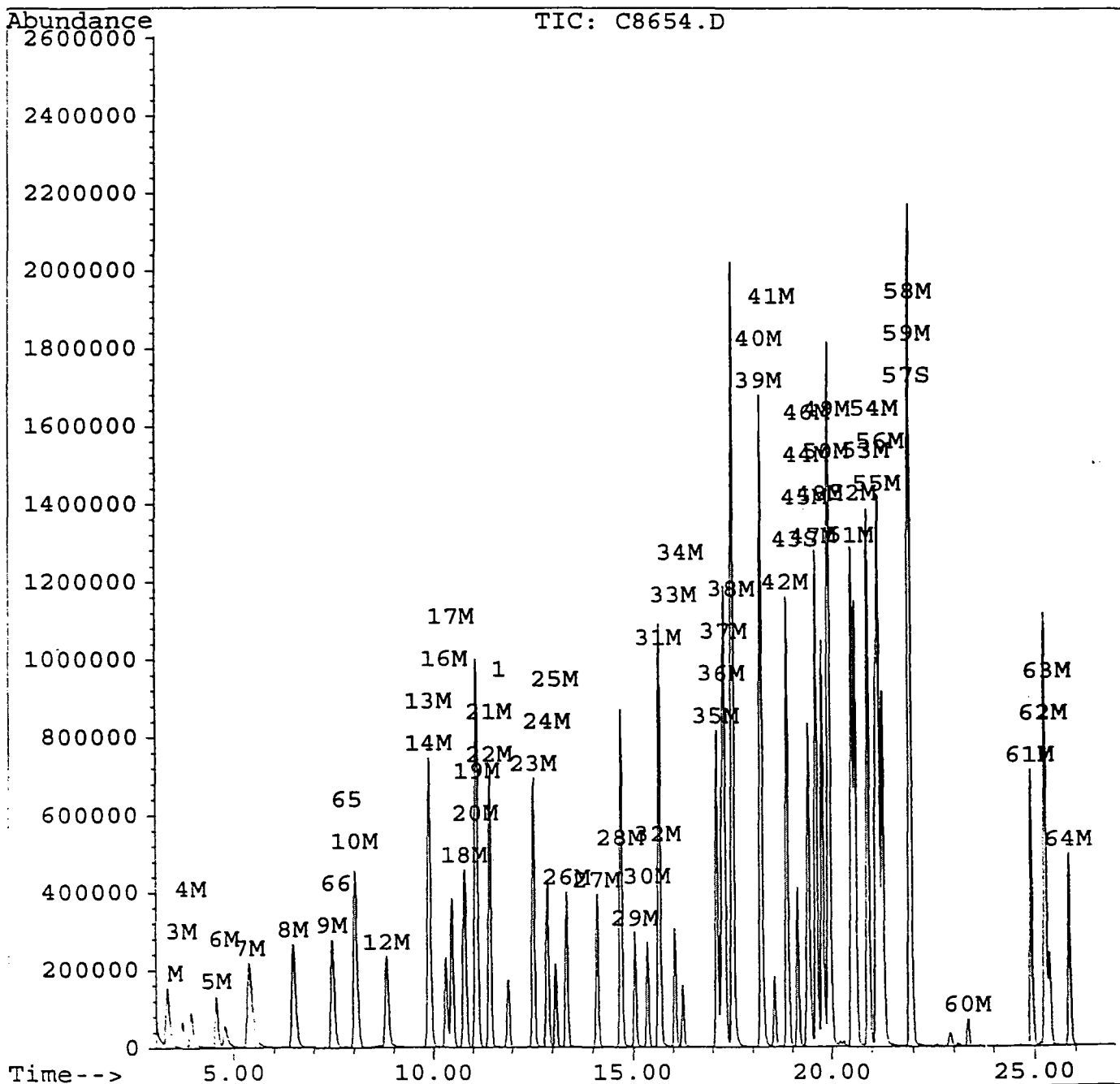
(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8654.d  
Acq On : 26 Jun 95 3:34 pm  
Sample : 20 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:38 1995

Vial: 4 067  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8655.d  
 Acq On : 26 Jun 95 4:35 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 18:39 1995

Vial: 5 068  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.89 | 96   | 358297   | 5.00 | ug/L  | 0.05      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 573750   | 16.05 | ug/L  | 321.05%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 296123   | 18.14 | ug/L  | 362.75%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.32  | 85   | 766059   | 26.97 | ug/L  | 99     |
| 3) Chloromethane              | 3.70  | 50   | 340725   | 20.38 | ug/L  | 99     |
| 4) Vinyl chloride             | 3.92  | 62   | 447154   | 23.73 | ug/L  | 100    |
| 5) Bromomethane               | 4.54  | 94   | 335011   | 26.30 | ug/L  | 94     |
| 6) Chloroethane               | 4.74  | 64   | 213726   | 19.35 | ug/L  | 94     |
| 7) Trichlorofluoromethane     | 5.36  | 101  | 1270617  | 30.18 | ug/L  | 97     |
| 8) 1,1-Dichloroethene         | 6.47  | 96   | 546040   | 29.53 | ug/L  | 91     |
| 9) Methylene chloride         | 7.46  | 84   | 522426   | 26.63 | ug/L  | # 83   |
| 10) trans-1,2-Dichloroethene  | 8.02  | 96   | 575427   | 29.45 | ug/L  | 90     |
| 12) 1,1-Dichloroethane        | 8.81  | 63   | 1010275  | 25.86 | ug/L  | 99     |
| 13) 2,2-Dichloropropane       | 9.88  | 77   | 1032645  | 26.96 | ug/L  | 94     |
| 14) cis-1,2-Dichloroethene    | 9.88  | 96   | 552545   | 30.00 | ug/L  | 88     |
| 16) Bromochloromethane        | 10.29 | 128  | 229963   | 35.64 | ug/L  | # 69   |
| 17) Chloroform                | 10.45 | 83   | 1091594  | 29.77 | ug/L  | 98     |
| 18) 1,1,1-Trichloroethane     | 10.78 | 97   | 1217514  | 30.00 | ug/L  | 95     |
| 19) Carbon tetrachloride      | 11.09 | 117  | 1157844  | 30.73 | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.07 | 75   | 959511   | 27.07 | ug/L  | 96     |
| 21) Benzene                   | 11.42 | 78   | 1731246  | 27.75 | ug/L  | 98     |
| 22) 1,2-Dichloroethane        | 11.42 | 62   | 438197   | 28.61 | ug/L  | 98     |
| 23) Trichloroethene           | 12.53 | 95   | 830130   | 30.01 | ug/L  | 93     |
| 24) 1,2-Dichloropropane       | 12.88 | 63   | 547652   | 26.82 | ug/L  | 97     |
| 25) Dibromomethane            | 13.09 | 93   | 285463   | 34.50 | ug/L  | 95     |
| 26) Bromodichloromethane      | 13.35 | 83   | 904059   | 31.85 | ug/L  | 99     |
| 27) cis-1,3-Dichloropropene   | 14.11 | 75   | 732008   | 29.85 | ug/L  | 95     |
| 28) Toluene                   | 14.69 | 92   | 1292344  | 29.15 | ug/L  | 97     |
| 29) trans-1,3-Dichloropropene | 15.03 | 75   | 531590   | 31.38 | ug/L  | m 56   |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 256853   | 32.47 | ug/L  | 99     |
| 31) Tetrachloroethene         | 15.66 | 165  | 894602   | 32.21 | ug/L  | 99     |
| 32) 1,3-Dichloropropane       | 15.64 | 75   | 481819   | 30.73 | ug/L  | 98     |
| 33) Dibromochloromethane      | 16.04 | 129  | 569640   | 36.99 | ug/L  | 98     |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 389569   | 35.68 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.11 | 112  | 1480615  | 32.07 | ug/L  | 95     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 643820   | 35.13 | ug/L  | 98     |
| 37) Ethylbenzene              | 17.31 | 91   | 2766353  | 29.65 | ug/L  | 99     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 2021292  | 60.32 | ug/L  | 99     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 929759   | 31.36 | ug/L  | 100    |
| 40) Styrene                   | 18.24 | 104  | 1441785  | 31.39 | ug/L  | 98     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8655.d  
Acq On : 26 Jun 95 4:35 pm  
Sample : 30 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:39 1995

Vial: 5 069  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 305991   | 40.50 | ug/L   | 87     |
| 42) Isopropylbenzene           | 18.88 | 105  | 2905392  | 30.48 | ug/L m | 0      |
| 44) Bromobenzene               | 19.42 | 156  | 626940   | 36.48 | ug/L # | 88     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 310912   | 36.80 | ug/L   | 97     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 333515   | 32.51 | ug/L # | 89     |
| 47) n-Propylbenzene            | 19.62 | 91   | 3729091  | 30.07 | ug/L   | 96     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 2218236  | 32.23 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 2485427  | 30.42 | ug/L   | 87     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 2449465  | 31.03 | ug/L   | 100    |
| 51) tert-Butylbenzene          | 20.52 | 119  | 2667221  | 32.59 | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 2365588  | 32.72 | ug/L   | 96     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 3708945  | 30.57 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 1228546  | 35.05 | ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 2961111  | 32.68 | ug/L   | 96     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 1244028  | 35.79 | ug/L   | 94     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 947311   | 36.28 | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.94 | 91   | 2949542  | 30.38 | ug/L   | 95     |
| 60) 1,2-Dibromo-3-chloropropan | 23.36 | 75   | 78194    | 36.44 | ug/L   | 92     |
| 61) 1,2,4-Trichlorobenzene     | 24.92 | 180  | 756964   | 39.42 | ug/L   | 100    |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 790352   | 34.13 | ug/L   | 94     |
| 63) Naphthalene                | 25.38 | 128  | 717487   | 43.17 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 557776   | 41.66 | ug/L   | 95     |
| 65) Methyl-tert butyl ether    | 8.06  | 73   | 668640   | 31.94 | ug/L   | 96     |
| 66) tert-Butyl Alcohol         | 7.83  | 59   | 22370    | 69.73 | ug/L   | 100    |

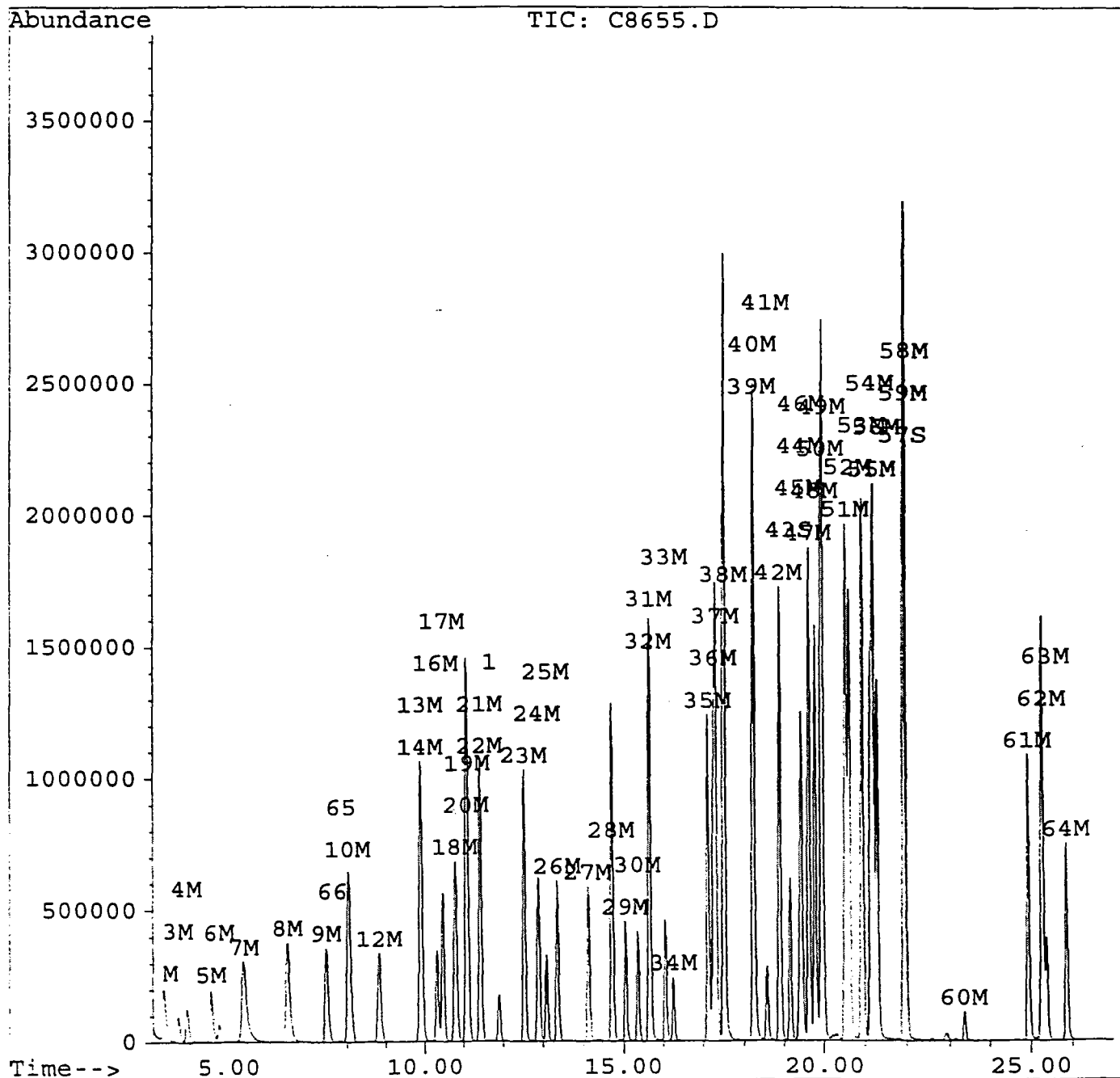
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8655.d  
 Acq On : 26 Jun 95 4:35 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 18:39 1995

Vial: 5 **070**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8656.d  
 Acq On : 26 Jun 95 5:11 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: Jun 26 18:40 1995

Vial: 6 071  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jun 26 18:48:37 1995  
 Response via : Multiple Level Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|-------------------------------|-------|------|----------|-------|-------|-----------|
| 1) Fluorobenzene              | 11.90 | 96   | 363604   | 5.00  | ug/L  | 0.06      |
| System Monitoring Compounds   |       |      |          |       |       | %Recovery |
| 43) 4-Bromofluorobenzene      | 19.14 | 95   | 772947   | 21.31 | ug/L  | 426.20%   |
| 57) 1,2-Dichlorobenzene-d4    | 21.93 | 152  | 392763   | 23.71 | ug/L  | 474.12%   |
| Target Compounds              |       |      |          |       |       | Qvalue    |
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 1060437  | 36.60 | ug/L  | 98        |
| 3) Chloromethane              | 3.71  | 50   | 488523   | 28.79 | ug/L  | 97        |
| 4) Vinyl chloride             | 3.94  | 62   | 616250   | 32.23 | ug/L  | 100       |
| 5) Bromomethane               | 4.57  | 94   | 459401   | 35.53 | ug/L  | 98        |
| 6) Chloroethane               | 4.76  | 64   | 260518   | 23.25 | ug/L  | 97        |
| 7) Trichlorofluoromethane     | 5.36  | 101  | 1710737  | 40.04 | ug/L  | 99        |
| 8) 1,1-Dichloroethene         | 6.49  | 96   | 744834   | 39.69 | ug/L  | 89        |
| 9) Methylene chloride         | 7.47  | 84   | 671435   | 33.73 | ug/L  | # 84      |
| 10) trans-1,2-Dichloroethene  | 8.04  | 96   | 786500   | 39.69 | ug/L  | 90        |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 1375890  | 34.70 | ug/L  | 100       |
| 13) 2,2-Dichloropropane       | 9.90  | 77   | 1365109  | 35.13 | ug/L  | 94        |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 752279   | 40.25 | ug/L  | # 88      |
| 16) Bromochloromethane        | 10.31 | 128  | 304179   | 46.45 | ug/L  | # 72      |
| 17) Chloroform                | 10.47 | 83   | 1475559  | 39.66 | ug/L  | 99        |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 1655569  | 40.20 | ug/L  | 96        |
| 19) Carbon tetrachloride      | 11.10 | 117  | 1561620  | 40.84 | ug/L  | 99        |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 1275995  | 35.47 | ug/L  | 95        |
| 21) Benzene                   | 11.43 | 78   | 2336100  | 36.90 | ug/L  | 99        |
| 22) 1,2-Dichloroethane        | 11.43 | 62   | 599613   | 38.58 | ug/L  | 98        |
| 23) Trichloroethene           | 12.54 | 95   | 1121352  | 39.95 | ug/L  | 95        |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 741113   | 35.76 | ug/L  | 96        |
| 25) Dibromomethane            | 13.09 | 93   | 376937   | 44.89 | ug/L  | 94        |
| 26) Bromodichloromethane      | 13.36 | 83   | 1194872  | 41.50 | ug/L  | 99        |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 967004   | 38.86 | ug/L  | 93        |
| 28) Toluene                   | 14.70 | 92   | 1737673  | 38.63 | ug/L  | 97        |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 692767   | 40.30 | ug/L  | m 56      |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 336042   | 41.86 | ug/L  | 96        |
| 31) Tetrachloroethene         | 15.66 | 166  | 1190931  | 42.25 | ug/L  | 99        |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 625736   | 39.32 | ug/L  | 98        |
| 33) Dibromochloromethane      | 16.05 | 129  | 748996   | 47.93 | ug/L  | 96        |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 512332   | 46.24 | ug/L  | 95        |
| 35) Chlorobenzene             | 17.13 | 112  | 1957163  | 41.77 | ug/L  | 95        |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 858156   | 46.14 | ug/L  | 99        |
| 37) Ethylbenzene              | 17.32 | 91   | 3710162  | 39.18 | ug/L  | 100       |
| 38) Xylene (para & meta)      | 17.53 | 106  | 2654411  | 78.16 | ug/L  | 98        |
| 39) Xylene (Ortho)            | 18.23 | 106  | 1222465  | 40.63 | ug/L  | 98        |
| 40) Styrene                   | 18.24 | 104  | 1901674  | 40.79 | ug/L  | 99        |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8656.d  
Acq On : 26 Jun 95 5:11 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:40 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 406163   | 52.97 | ug/L   | 89     |
| 42) Isopropylbenzene           | 18.88 | 105  | 3862052  | 39.92 | ug/L m | 0      |
| 44) Bromobenzene               | 19.42 | 156  | 827164   | 47.43 | ug/L # | 90     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 405928   | 47.35 | ug/L   | 93     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 426163   | 40.94 | ug/L # | 77     |
| 47) n-Propylbenzene            | 19.62 | 91   | 5027633  | 39.95 | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 3022550  | 43.28 | ug/L   | 97     |
| 49) 4-Chlorotoluene            | 19.97 | 91   | 3350823  | 40.41 | ug/L m | 90     |
| 50) 1,3,5-Trimethylbenzene     | 19.94 | 105  | 3253930  | 40.63 | ug/L   | 99     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 3559052  | 42.85 | ug/L   | 99     |
| 52) 1,2,4-Trimethylbenzene     | 20.62 | 105  | 3133241  | 42.70 | ug/L   | 94     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 4932738  | 40.07 | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.13 | 146  | 1647620  | 46.32 | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.20 | 119  | 3952303  | 42.99 | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 1632915  | 46.29 | ug/L   | 94     |
| 58) 1,2-Dichlorobenzene        | 21.97 | 146  | 1235530  | 46.62 | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.94 | 91   | 3919480  | 39.78 | ug/L   | 96     |
| 60) 1,2-Dibromo-3-chloropropan | 23.37 | 75   | 104168   | 47.84 | ug/L   | 91     |
| 61) 1,2,4-Trichlorobenzene     | 24.94 | 180  | 1009305  | 51.79 | ug/L   | 100    |
| 62) Hexachlorobutadiene        | 25.28 | 225  | 1083830  | 46.12 | ug/L   | 96     |
| 63) Naphthalene                | 25.38 | 128  | 907970   | 53.84 | ug/L m | 0      |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 750680   | 55.25 | ug/L   | 96     |
| 65) Methyl-tert butyl ether    | 8.09  | 73   | 894243   | 42.10 | ug/L   | 96     |
| 66) tert-Butyl Alcohol         | 7.85  | 59   | 29136    | 89.50 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

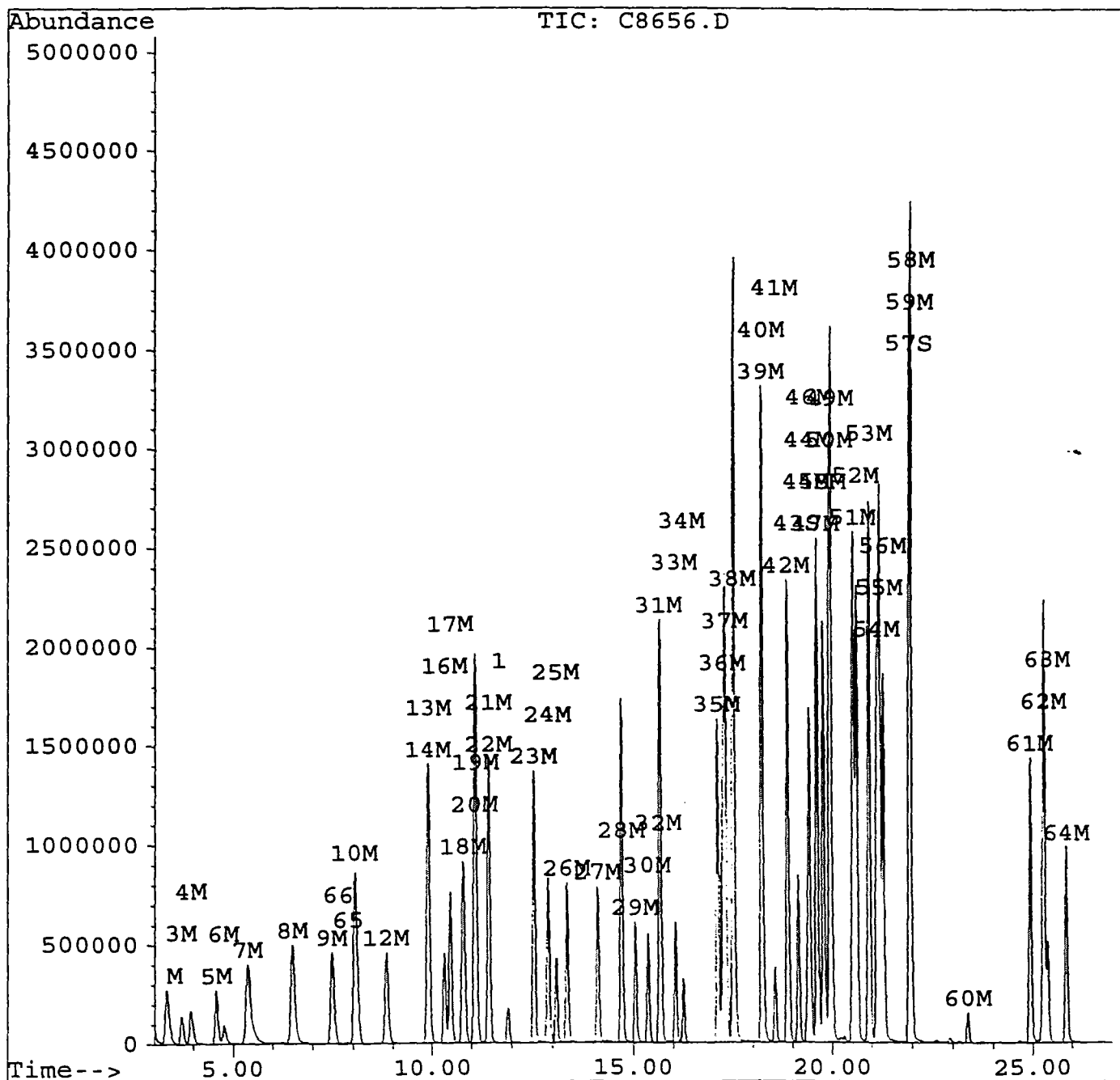
# Quantitation Report

073

Data File : d:\hpchem\1\data\c8656.d  
Acq On : 26 Jun 95 5:11 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: Jun 26 18:40 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jun 26 18:48:37 1995  
Response via : Multiple Level Calibration





5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

074

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C8617.D BFB Injection Date: 6/21/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1548  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | %RELATIVE ABUNDANCE |
|-----|------------------------------------|---------------------|
| 50  | 8.0 - 40.0% of mass 95             | 22.7                |
| 75  | 30.0 - 66.0% of mass 95            | 52.5                |
| 95  | Base peak, 100% relative abundance | 100.0               |
| 96  | 5.0 - 9.0% of mass 95              | 6.6                 |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 )1        |
| 174 | 50.0 - 120.0% of mass 95           | 52.8                |
| 175 | 4.0 - 9.0% of mass 174             | 3.1 ( 6.0 )1        |
| 176 | 93.0 - 101.0% of mass 174          | 52.3 ( 99.1 )1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.7 ( 7.1 )2        |

1-Value is % mass 174

2-Value is % mass 176

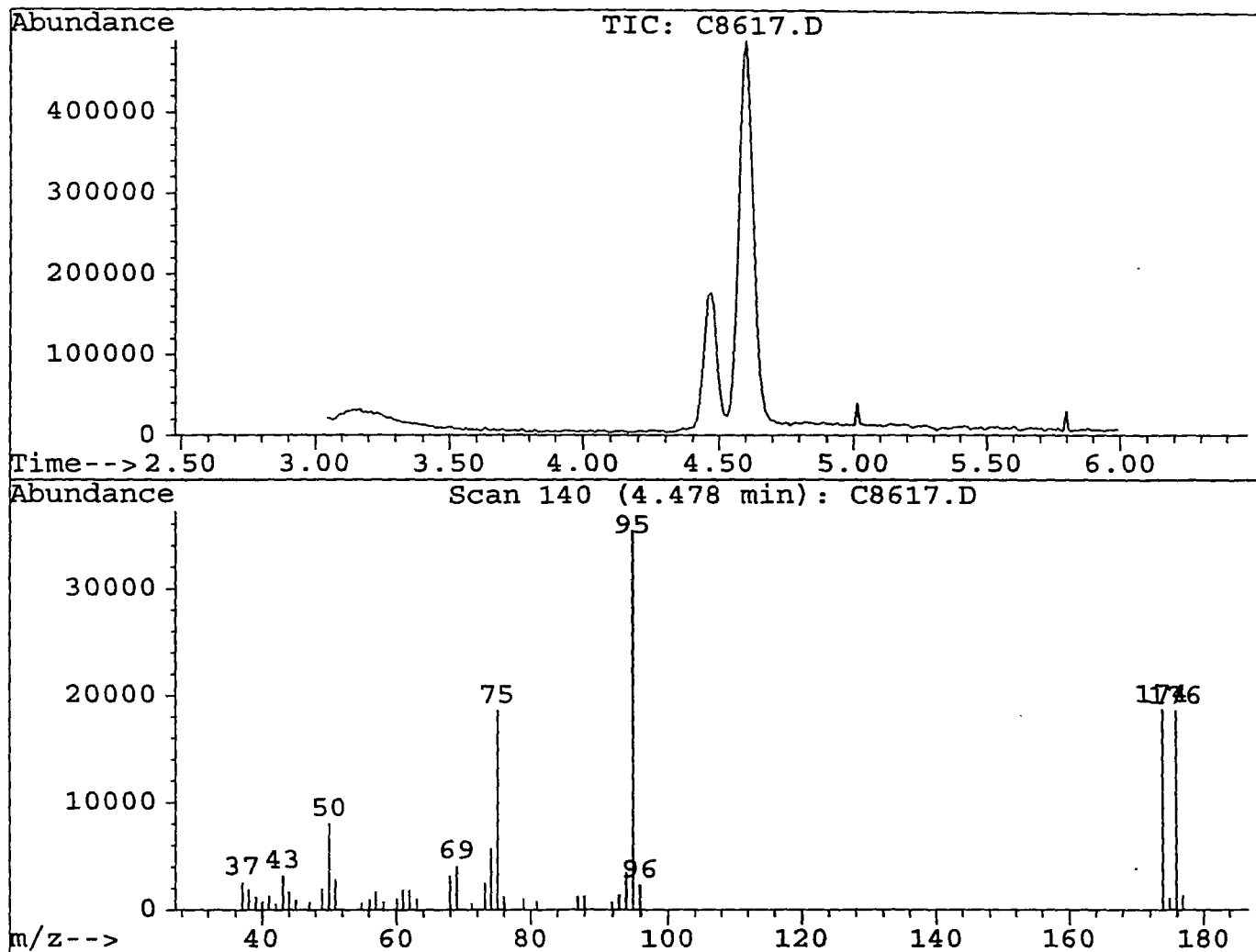
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | VSTD010    | 10 STND       | C8618.D     | 6/21/95       | 1601          |
| 02 | 1PPB STD   | 1PPB STD      | C8619.D     | 6/21/95       | 1637          |
| 03 | VBLK01     | M. BLANK      | C8620.D     | 6/21/95       | 1712          |
| 04 | 9525784V   | 9525784V      | C8621.D     | 6/21/95       | 1748          |
| 05 | 9527186V   | 9527186V      | C8622.D     | 6/21/95       | 1823          |
| 06 | 9526426V   | 9526426V      | C8623.D     | 6/21/95       | 1857          |
| 07 | 9526427V   | 9526427V      | C8624.D     | 6/21/95       | 1932          |
| 08 | 9526428V   | 9526428V      | C8625.D     | 6/21/95       | 2006          |
| 09 | 9526429V   | 9526429V      | C8626.D     | 6/21/95       | 2040          |
| 10 | 9526430V   | 9526430V      | C8627.D     | 6/21/95       | 2114          |
| 11 | 9526431V   | 9526431V      | C8628.D     | 6/21/95       | 2148          |
| 12 | 9526431MS  | 26431MS       | C8629.D     | 6/21/95       | 2223          |
| 13 | 9526431MSD | 26431MSD      | C8630.D     | 6/21/95       | 2257          |
| 14 | 10PPBQCS   | 10PPBQCS      | C8631.D     | 6/21/95       | 2331          |
| 15 |            |               |             |               |               |
| 16 |            |               |             |               |               |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |

Data File : D:\HPCHEM\1\DATA\C8617.D  
 Acq On : 21 Jun 95 3:48 pm  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 140

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 22.7      | 8038    | PASS             |
| 75          | 95           | 30           | 60           | 52.5      | 18608   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 35472   | PASS             |
| 96          | 95           | 5            | 9            | 6.6       | 2335    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 52.8      | 18728   | PASS             |
| 175         | 174          | 5            | 9            | 6.0       | 1115    | PASS             |
| 176         | 174          | 95           | 101          | 99.1      | 18568   | PASS             |
| 177         | 176          | 5            | 9            | 7.1       | 1317    | PASS             |

Ln 140 (4.478 min): C8617.D  
BFB TUNE

076

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 37.10 | 2582   | 50.05 | 8038   | 68.95 | 4073   | 92.95  | 1384   |
| 38.00 | 1896   | 50.95 | 2821   | 71.05 | 628    | 93.95  | 3516   |
| 39.10 | 1222   | 54.95 | 608    | 73.05 | 2451   | 94.95  | 35472  |
| 40.00 | 774    | 56.10 | 965    | 73.95 | 5684   | 95.95  | 2335   |
| 41.00 | 1262   | 57.00 | 1666   | 74.95 | 18608  | 173.95 | 18728  |
| 42.10 | 564    | 58.10 | 792    | 75.95 | 1241   | 174.95 | 1115   |
| 43.10 | 3189   | 60.10 | 1073   | 78.90 | 994    | 175.95 | 18568  |
| 44.00 | 1668   | 61.00 | 1890   | 80.90 | 802    | 176.85 | 1317   |
| 45.00 | 963    | 62.00 | 1866   | 87.00 | 1251   |        |        |
| 47.05 | 720    | 63.00 | 1078   | 87.95 | 1250   |        |        |
| 48.95 | 1948   | 67.95 | 3154   | 91.95 | 733    |        |        |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

077

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/21/95 Time: 1601

Lab File ID: C8618.D Init. Calib. Date(s): 5/26/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

| COMPOUND                  | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|---------------------------|-------|-------|------------|-------|-----------|
| Dichlorodifluoromethane   | 0.396 | 0.347 |            | 12.4  | 30.0      |
| Chloromethane             | 0.233 | 0.227 |            | 2.6   | 30.0      |
| Vinyl chloride            | 0.263 | 0.264 |            | -0.4  | 30.0      |
| Bromomethane              | 0.178 | 0.181 |            | -1.7  | 30.0      |
| Chloroethane              | 0.154 | 0.172 |            | -11.7 | 30.0      |
| Trichlorofluoromethane    | 0.588 | 0.604 |            | -2.7  | 30.0      |
| 1,1-Dichloroethene        | 0.258 | 0.262 |            | -1.6  | 30.0      |
| Methylene chloride        | 0.274 | 0.340 |            | -24.1 | 30.0      |
| trans-1,2-Dichloroethene  | 0.273 | 0.280 |            | -2.6  | 30.0      |
| 1,1-Dichloroethane        | 0.545 | 0.596 |            | -9.4  | 30.0      |
| 2,2-Dichloropropane       | 0.534 | 0.564 |            | -5.6  | 30.0      |
| cis-1,2-Dichloroethene    | 0.257 | 0.268 |            | -4.3  | 30.0      |
| Bromochloromethane        | 0.090 | 0.091 |            | -1.1  | 30.0      |
| Chloroform                | 0.512 | 0.547 |            | -6.8  | 30.0      |
| 1,1,1-Trichloroethane     | 0.566 | 0.590 |            | -4.2  | 30.0      |
| Carbon tetrachloride      | 0.526 | 0.530 |            | -0.8  | 30.0      |
| 1,1-Dichloropropene       | 0.495 | 0.528 |            | -6.7  | 30.0      |
| Benzene                   | 0.871 | 0.902 |            | -3.6  | 30.0      |
| 1,2-Dichloroethane        | 0.214 | 0.244 |            | -14.0 | 30.0      |
| Trichloroethene           | 0.386 | 0.391 |            | -1.3  | 30.0      |
| 1,2-Dichloropropane       | 0.285 | 0.315 |            | -10.5 | 30.0      |
| Dibromomethane            | 0.115 | 0.127 |            | -10.4 | 30.0      |
| Bromodichloromethane      | 0.396 | 0.442 |            | -11.6 | 30.0      |
| cis-1,3-Dichloropropene   | 0.342 | 0.379 |            | -10.8 | 30.0      |
| Toluene                   | 0.619 | 0.636 |            | -2.7  | 30.0      |
| trans-1,3-Dichloropropene | 0.236 | 0.268 |            | -13.6 | 30.0      |
| 1,1,2-Trichloroethane     | 0.110 | 0.126 |            | -14.5 | 30.0      |
| Tetrachloroethene         | 0.388 | 0.362 |            | 6.7   | 30.0      |
| 1,3-Dichloropropane       | 0.219 | 0.244 |            | -11.4 | 30.0      |
| Dibromochloromethane      | 0.215 | 0.227 |            | -5.6  | 30.0      |
| 1,2-Dibromomethane        | 0.152 | 0.169 |            | -11.2 | 30.0      |
| Chlorobenzene             | 0.644 | 0.644 |            | 0.0   | 30.0      |
| 1,1,1,2-Tetrachloroethane | 0.256 | 0.260 |            | -1.6  | 30.0      |
| Ethylbenzene              | 1.302 | 1.343 |            | -3.1  | 30.0      |
| Xylene (para & meta)      | 0.468 | 0.468 |            | 0.0   | 30.0      |
| Xylene (Ortho)            | 0.414 | 0.415 |            | -0.2  | 30.0      |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

078

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/21/95 Time: 1601

Lab File ID: C8618.D Init. Calib. Date(s): 5/26/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

| COMPOUND                    | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|-----------------------------|-------|-------|------------|-------|-----------|
| Styrene                     | 0.641 | 0.655 |            | -2.2  | 30.0      |
| Bromoform                   | 0.105 | 0.112 |            | -6.7  | 30.0      |
| Isopropylbenzene            | 1.330 | 1.308 |            | 1.7   | 30.0      |
| Bromobenzene                | 0.240 | 0.241 |            | -0.4  | 30.0      |
| 1,1,2,2-Tetrachloroethane   | 0.118 | 0.147 |            | -24.6 | 30.0      |
| 1,2,3-Trichloropropane      | 0.143 | 0.162 |            | -13.3 | 30.0      |
| n-Propylbenzene             | 1.731 | 1.760 |            | -1.7  | 30.0      |
| 2-Chlorotoluene             | 0.960 | 1.058 |            | -10.2 | 30.0      |
| 4-Chlorotoluene             | 1.140 | 1.143 |            | -0.3  | 30.0      |
| 1,3,5-Trimethylbenzene      | 1.101 | 1.060 |            | 3.7   | 30.0      |
| tert-Butylbenzene           | 1.142 | 1.116 |            | 2.3   | 30.0      |
| 1,2,4-Trimethylbenzene      | 1.009 | 1.011 |            | -0.2  | 30.0      |
| sec-Butylbenzene            | 1.693 | 1.623 |            | 4.1   | 30.0      |
| 1,3-Dichlorobenzene         | 0.489 | 0.472 |            | 3.5   | 30.0      |
| 4-Isopropyltoluene          | 1.264 | 1.224 |            | 3.2   | 30.0      |
| 1,4-Dichlorobenzene         | 0.485 | 0.474 |            | 2.3   | 30.0      |
| 1,2-Dichlorobenzene         | 0.364 | 0.363 |            | 0.3   | 30.0      |
| n-Butylbenzene              | 1.355 | 1.345 |            | 0.7   | 30.0      |
| 1,2-Dibromo-3-chloropropane | 0.030 | 0.037 |            | -23.3 | 30.0      |
| 1,2,4-Trichlorobenzene      | 0.268 | 0.236 |            | 11.9  | 30.0      |
| Hexachlorobutadiene         | 0.323 | 0.275 |            | 14.9  | 30.0      |
| Naphthalene                 | 0.232 | 0.223 |            | 3.9   | 30.0      |
| 1,2,3-Trichlorobenzene      | 0.187 | 0.175 |            | 6.4   | 30.0      |
| 4-Bromofluorobenzene        | 0.499 | 0.515 |            | -3.2  | 30.0      |
| 1,2-Dichlorobenzene-d4      | 0.228 | 0.227 |            | 0.4   | 30.0      |

# Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8618.D

Acq On : 21 Jun 95 4:01 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

079

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(Min) |
|------|---------------------------|-------|--------|-------|-------|----------|
|      | Fluorobenzene             | 1.000 | 1.000  | 0.0   | 94    | 0.05     |
| 2 M  | Dichlorodifluoromethane   | 0.396 | 0.347  | 12.3  | 78    | 0.05     |
| M    | Chloromethane             | 0.233 | 0.227  | 2.9   | 86    | 0.06     |
| M    | Vinyl chloride            | 0.263 | 0.264  | -0.5  | 91    | 0.06     |
| 5 M  | Bromomethane              | 0.178 | 0.181  | -2.0  | 87    | 0.06     |
| 6 M  | Chloroethane              | 0.154 | 0.172  | -11.8 | 95    | 0.06     |
| M    | Trichlorofluoromethane    | 0.588 | 0.604  | -2.9  | 95    | 0.08     |
| 8 M  | 1,1-Dichloroethene        | 0.258 | 0.262  | -1.5  | 93    | 0.09     |
| 9 M  | Methylene chloride        | 0.274 | 0.340  | -24.1 | 91    | 0.07     |
| 10 M | trans-1,2-Dichloroethene  | 0.273 | 0.280  | -2.6  | 95    | 0.06     |
| 11   | Hexane                    | 0.000 | 0.000# | 0.0   | 0#    | 0.47#    |
| 12 M | 1,1-Dichloroethane        | 0.545 | 0.596  | -9.3  | 103   | 0.07     |
| 13 M | 2,2-Dichloropropane       | 0.534 | 0.564  | -5.6  | 98    | 0.06     |
| 14 M | cis-1,2-Dichloroethene    | 0.257 | 0.268  | -4.4  | 97    | 0.06     |
| 15   | 2-Butanone                | 0.000 | 0.000# | 0.0   | 0#    | -0.05    |
| 16 M | Bromochloromethane        | 0.090 | 0.091  | -0.9  | 97    | 0.07     |
| 17 M | Chloroform                | 0.512 | 0.547  | -6.8  | 101   | 0.07     |
| 18 M | 1,1,1-Trichloroethane     | 0.566 | 0.590  | -4.2  | 98    | 0.05     |
| 19 M | Carbon tetrachloride      | 0.526 | 0.530  | -0.8  | 96    | 0.05     |
| 20 M | 1,1-Dichloropropene       | 0.495 | 0.528  | -6.7  | 98    | 0.06     |
| 21 M | Benzene                   | 0.871 | 0.902  | -3.6  | 96    | 0.06     |
| 22 M | 1,2-Dichloroethane        | 0.214 | 0.244  | -14.3 | 110   | 0.06     |
| 23 M | Trichloroethene           | 0.386 | 0.391  | -1.4  | 95    | 0.05     |
| 24 M | 1,2-Dichloropropane       | 0.285 | 0.315  | -10.7 | 106   | 0.05     |
| 25 M | Dibromomethane            | 0.115 | 0.127  | -10.4 | 106   | 0.04     |
| 26 M | Bromodichloromethane      | 0.396 | 0.442  | -11.7 | 108   | 0.06     |
| 27 M | cis-1,3-Dichloropropene   | 0.342 | 0.379  | -10.8 | 107   | 0.05     |
| 28 M | Toluene                   | 0.619 | 0.636  | -2.8  | 99    | 0.05     |
| 29 M | trans-1,3-Dichloropropene | 0.236 | 0.268  | -13.4 | 110   | 0.05     |
| 30 M | 1,1,2-Trichloroethane     | 0.110 | 0.126  | -13.8 | 110   | 0.05     |
| 31 M | Tetrachloroethene         | 0.388 | 0.362  | 6.7   | 88    | 0.04     |
| 32 M | 1,3-Dichloropropane       | 0.219 | 0.244  | -11.3 | 108   | 0.05     |
| 33 M | Dibromochloromethane      | 0.215 | 0.227  | -5.7  | 105   | 0.05     |
| 34 M | 1,2-Dibromomethane        | 0.152 | 0.169  | -11.1 | 110   | 0.05     |
| 35 M | Chlorobenzene             | 0.644 | 0.644  | 0.1   | 95    | 0.05     |
| 36 M | 1,1,1,2-Tetrachloroethane | 0.256 | 0.260  | -1.8  | 100   | 0.04     |
| 37 M | Ethylbenzene              | 1.302 | 1.343  | -3.1  | 99    | 0.04     |
| 38 M | Xylene (para & meta)      | 0.468 | 0.468  | -0.1  | 95    | 0.04     |
| 39 M | Xylene (Ortho)            | 0.414 | 0.415  | -0.4  | 96    | 0.04     |
| 40 M | Styrene                   | 0.641 | 0.655  | -2.2  | 99    | 0.04     |
| 41 M | Bromoform                 | 0.105 | 0.112  | -6.1  | 106   | 0.04     |
| 42 M | Isopropylbenzene          | 1.330 | 1.308  | 1.7   | 95    | 0.04     |

(#) = Out of Range

C8618.D VOA524.M

Thu Jun 22 15:21:18 1995

VOA

Page 1

## Evaluate Continuing Calibration Report

080

Data File : D:\HPCHEM\1\DATA\C8618.D  
 Acq On : 21 Jun 95 4:01 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(Min) |
|------|-----------------------------|-------|-------|-------|-------|----------|
| S    | 4-Bromofluorobenzene        | 0.499 | 0.515 | -3.3  | 101   | 0.05     |
| 4 M  | Bromobenzene                | 0.240 | 0.241 | -0.4  | 98    | 0.04     |
| M    | 1,1,2,2-Tetrachloroethane   | 0.118 | 0.147 | -24.4 | 124   | 0.03     |
| M    | 1,2,3-Trichloropropane      | 0.143 | 0.162 | -13.2 | 111   | 0.04     |
| 17 M | n-Propylbenzene             | 1.731 | 1.760 | -1.7  | 99    | 0.04     |
| 18 M | 2-Chlorotoluene             | 0.960 | 1.058 | -10.2 | 108   | 0.04     |
| 1 M  | 4-Chlorotoluene             | 1.140 | 1.143 | -0.3  | 97    | 0.05     |
| 53 M | 1,3,5-Trimethylbenzene      | 1.101 | 1.060 | 3.7   | 94    | 0.04     |
| 51 M | tert-Butylbenzene           | 1.142 | 1.116 | 2.3   | 95    | 0.04     |
| 53 M | 1,2,4-Trimethylbenzene      | 1.009 | 1.011 | -0.2  | 96    | 0.04     |
| 53 M | sec-Butylbenzene            | 1.693 | 1.623 | 4.1   | 94    | 0.04     |
| 54 M | 1,3-Dichlorobenzene         | 0.489 | 0.472 | 3.4   | 95    | 0.04     |
| 57 M | 4-Isopropyltoluene          | 1.264 | 1.224 | 3.2   | 94    | 0.04     |
| 57 M | 1,4-Dichlorobenzene         | 0.485 | 0.474 | 2.2   | 97    | 0.04     |
| 57 S | 1,2-Dichlorobenzene-d4      | 0.228 | 0.227 | 0.4   | 98    | 0.03     |
| 58 M | 1,2-Dichlorobenzene         | 0.364 | 0.363 | 0.3   | 98    | 0.04     |
| 59 M | n-Butylbenzene              | 1.355 | 1.345 | 0.7   | 98    | 0.04     |
| 60 M | 1,2-Dibromo-3-chloropropane | 0.030 | 0.037 | -22.8 | 128   | 0.03     |
| 61 M | 1,2,4-Trichlorobenzene      | 0.268 | 0.236 | 12.1  | 87    | 0.04     |
| 62 M | Hexachlorobutadiene         | 0.323 | 0.275 | 14.9  | 85    | 0.03     |
| 63 M | Naphthalene                 | 0.232 | 0.223 | 4.0   | 95    | 0.03     |
| 64 M | 1,2,3-Trichlorobenzene      | 0.187 | 0.175 | 6.5   | 94    | 0.04     |
| 65   | Methyl-tert butyl ether     | 0.292 | 0.338 | -15.8 | 112   | 0.06     |
| 66   | tert-Butyl Alcohol          | 0.004 | 0.006 | -23.2 | 133   | 0.06     |

(#) = Out of Range

C8618.D VOA524.M

SPCC's out = 0 CCC's out = 0

Thu Jun 22 15:21:26 1995

VOA

Page 2

## Quantitation Report

Data File : d:\hpcchem\1\data\c8618.d  
 Acq On : 21 Jun 95 4:01 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 22 15:05 1995

Vial: 2 081  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.89 | 96   | 727435   | 5.00 | ug/L  | 0.05      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 374679   | 5.16 | ug/L  | 103.27%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.91 | 152  | 165031   | 4.98 | ug/L  | 99.58%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.33  | 85   | 505478   | 8.77  | ug/L  | 96     |
| 3) Chloromethane              | 3.70  | 50   | 329716   | 9.71  | ug/L  | 98     |
| 4) Vinyl chloride             | 3.93  | 62   | 384395   | 10.05 | ug/L  | 98     |
| 5) Bromomethane               | 4.58  | 94   | 263783   | 10.20 | ug/L  | 96     |
| 6) Chloroethane               | 4.82  | 64   | 250557   | 11.18 | ug/L  | 94     |
| 7) Trichlorofluoromethane     | 5.42  | 101  | 879391   | 10.29 | ug/L  | 97     |
| 8) 1,1-Dichloroethene         | 6.51  | 96   | 380949   | 10.15 | ug/L  | # 84   |
| 9) Methylene chloride         | 7.48  | 84   | 494356   | 12.41 | ug/L  | 93     |
| 10) trans-1,2-Dichloroethene  | 8.03  | 96   | 407093   | 10.26 | ug/L  | 91     |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 867301   | 10.93 | ug/L  | 98     |
| 13) 2,2-Dichloropropane       | 9.89  | 77   | 821160   | 10.56 | ug/L  | 100    |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 390466   | 10.44 | ug/L  | 92     |
| 16) Bromochloromethane        | 10.31 | 128  | 132118   | 10.09 | ug/L  | 93     |
| 17) Chloroform                | 10.46 | 83   | 795103   | 10.68 | ug/L  | 98     |
| 18) 1,1,1-Trichloroethane     | 10.78 | 97   | 858453   | 10.42 | ug/L  | 96     |
| 19) Carbon tetrachloride      | 11.09 | 117  | 771119   | 10.08 | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 767707   | 10.67 | ug/L  | 98     |
| 21) Benzene                   | 11.42 | 78   | 1311720  | 10.36 | ug/L  | 96     |
| 22) 1,2-Dichloroethane        | 11.43 | 62   | 355255   | 11.43 | ug/L  | 99     |
| 23) Trichloroethene           | 12.53 | 95   | 569557   | 10.14 | ug/L  | 93     |
| 24) 1,2-Dichloropropane       | 12.88 | 63   | 458759   | 11.07 | ug/L  | 98     |
| 25) Dibromomethane            | 13.08 | 93   | 185487   | 11.04 | ug/L  | 89     |
| 26) Bromodichloromethane      | 13.35 | 83   | 643204   | 11.17 | ug/L  | 100    |
| 27) cis-1,3-Dichloropropene   | 14.11 | 75   | 551896   | 11.08 | ug/L  | 98     |
| 28) Toluene                   | 14.69 | 92   | 925447   | 10.28 | ug/L  | 99     |
| 29) trans-1,3-Dichloropropene | 15.03 | 75   | 390135   | 11.34 | ug/L  | 98     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 182729   | 11.38 | ug/L  | 98     |
| 31) Tetrachloroethene         | 15.65 | 166  | 526003   | 9.33  | ug/L  | 95     |
| 32) 1,3-Dichloropropane       | 15.63 | 76   | 354394   | 11.13 | ug/L  | 96     |
| 33) Dibromochloromethane      | 16.04 | 129  | 330529   | 10.57 | ug/L  | 97     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 246309   | 11.11 | ug/L  | 97     |
| 35) Chlorobenzene             | 17.12 | 112  | 936565   | 9.99  | ug/L  | 93     |
| 36) 1,1,1,2-Tetrachloroethane | 17.24 | 131  | 378896   | 10.18 | ug/L  | 97     |
| 37) Ethylbenzene              | 17.30 | 91   | 1953647  | 10.31 | ug/L  | 98     |
| 38) Xylene (para & meta)      | 17.51 | 106  | 1362492  | 20.03 | ug/L  | 94     |
| 39) Xylene (Ortho)            | 18.21 | 106  | 604490   | 10.04 | ug/L  | # 87   |
| 40) Styrene                   | 18.23 | 104  | 952735   | 10.22 | ug/L  | 94     |

(#) = qualifier out of range (m) = manual integration



## Quantitation Report

082

Data File : d:\hpchem\1\data\c8618.d  
Acq On : 21 Jun 95 4:01 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 22 15:05 1995

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 162779   | 10.61 | ug/L   | 87     |
| 42) Isopropylbenzene           | 18.87 | 105  | 1902422  | 9.83  | ug/L   | 91     |
| 44) Bromobenzene               | 19.42 | 156  | 350317   | 10.04 | ug/L # | 87     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.35 | 83   | 213325   | 12.44 | ug/L   | 99     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 235860   | 11.32 | ug/L   | 94     |
| 47) n-Propylbenzene            | 19.61 | 91   | 2561118  | 10.17 | ug/L   | 100    |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 1539557  | 11.02 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1663477  | 10.03 | ug/L   | 81     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 1542800  | 9.63  | ug/L   | 95     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 1624320  | 9.77  | ug/L   | 97     |
| 52) 1,2,4-Trimethylbenzene     | 20.60 | 105  | 1470730  | 10.02 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.92 | 105  | 2361702  | 9.59  | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 687196   | 9.66  | ug/L   | 95     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 1780582  | 9.68  | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 690249   | 9.78  | ug/L   | 90     |
| 58) 1,2-Dichlorobenzene        | 21.95 | 146  | 528489   | 9.97  | ug/L m | 0      |
| 59) n-Butylbenzene             | 21.93 | 91   | 1956991  | 9.93  | ug/L   | 98     |
| 60) 1,2-Dibromo-3-chloropropan | 23.34 | 75   | 53519    | 12.28 | ug/L # | 69     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 342709   | 8.79  | ug/L   | 96     |
| 62) Hexachlorobutadiene        | 25.26 | 225  | 400127   | 8.51  | ug/L   | 100    |
| 63) Naphthalene                | 25.37 | 128  | 323794   | 9.60  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 254279   | 9.35  | ug/L   | 96     |
| 65) Methyl-tert butyl ether    | 8.05  | 73   | 491969   | 11.58 | ug/L   | 100    |
| 66) tert-Butyl Alcohol         | 7.79  | 59   | 16053    | 24.65 | ug/L   | 100    |

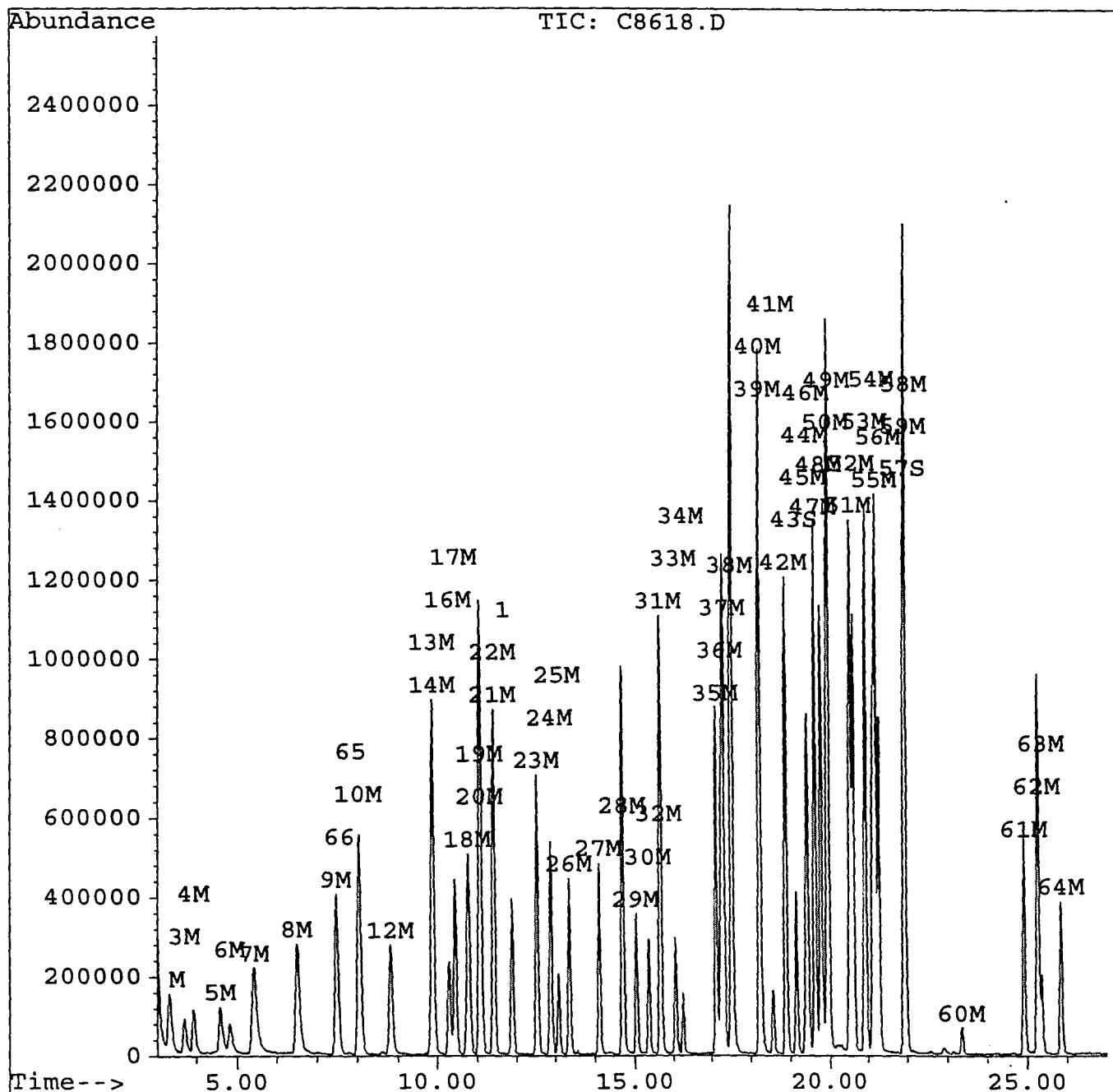
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8618.d  
 Acq On : 21 Jun 95 4:01 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 22 15:05 1995

Vial: 2 **083**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8619.d  
 Acq On : 21 Jun 95 4:37 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 21 17:05 1995

Vial: 3 084  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.89 | 96   | 711692   | 5.00 | ug/L  | 0.05      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.13 | 95   | 373846   | 5.27 | ug/L  | 105.32%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.91 | 152  | 171123   | 5.28 | ug/L  | 105.54%   |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units | Qvalue |
|-------------------------------|-------|------|----------|------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.33  | 85   | 52705    | 0.93 | ug/L  | 97     |
| 3) Chloromethane              | 3.71  | 50   | 34122    | 1.03 | ug/L  | 91     |
| 4) Vinyl chloride             | 3.92  | 62   | 39999    | 1.07 | ug/L  | 93     |
| 5) Bromomethane               | 4.60  | 94   | 30920    | 1.22 | ug/L  | 93     |
| 6) Chloroethane               | 4.84  | 64   | 26096    | 1.19 | ug/L  | 98     |
| 7) Trichlorofluoromethane     | 5.41  | 101  | 91090    | 1.09 | ug/L  | 93     |
| 8) 1,1-Dichloroethene         | 6.50  | 96   | 40718    | 1.11 | ug/L  | 88     |
| 9) Methylene chloride         | 7.48  | 84   | 229773   | 5.90 | ug/L  | 97     |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 42393    | 1.09 | ug/L  | 90     |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 91491    | 1.18 | ug/L  | 96     |
| 13) 2,2-Dichloropropane       | 9.90  | 77   | 86898    | 1.14 | ug/L  | 91     |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 42670    | 1.17 | ug/L  | 98     |
| 16) Bromochloromethane        | 10.30 | 128  | 13459    | 1.05 | ug/L  | 88     |
| 17) Chloroform                | 10.46 | 83   | 89000    | 1.22 | ug/L  | 95     |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 89755    | 1.11 | ug/L  | 91     |
| 19) Carbon tetrachloride      | 11.09 | 117  | 80493    | 1.08 | ug/L  | 99     |
| 20) 1,1-Dichloropropene       | 11.07 | 75   | 81335    | 1.16 | ug/L  | 97     |
| 21) Benzene                   | 11.42 | 78   | 146383   | 1.18 | ug/L  | 97     |
| 22) 1,2-Dichloroethane        | 11.43 | 62   | 36522    | 1.20 | ug/L  | 94     |
| 23) Trichloroethene           | 12.54 | 95   | 61000    | 1.11 | ug/L  | 91     |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 50473    | 1.24 | ug/L  | 89     |
| 25) Dibromomethane            | 13.09 | 93   | 19444    | 1.18 | ug/L  | 93     |
| 26) Bromodichloromethane      | 13.35 | 83   | 68252    | 1.21 | ug/L  | 92     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 58043    | 1.19 | ug/L  | 90     |
| 28) Toluene                   | 14.70 | 92   | 98298    | 1.12 | ug/L  | 98     |
| 29) trans-1,3-Dichloropropene | 15.03 | 75   | 42089    | 1.25 | ug/L  | 95     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 20122    | 1.28 | ug/L  | 91     |
| 31) Tetrachloroethene         | 15.66 | 166  | 57565    | 1.04 | ug/L  | 97     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 38747    | 1.24 | ug/L  | 92     |
| 33) Dibromochloromethane      | 16.03 | 129  | 33999    | 1.11 | ug/L  | 97     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 24143    | 1.11 | ug/L  | 92     |
| 35) Chlorobenzene             | 17.12 | 112  | 108772   | 1.19 | ug/L  | 96     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 41627    | 1.14 | ug/L  | 96     |
| 37) Ethylbenzene              | 17.30 | 91   | 213908   | 1.15 | ug/L  | 95     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 147039   | 2.21 | ug/L  | 89     |
| 39) Xylene (Ortho)            | 18.21 | 106  | 66862    | 1.14 | ug/L  | 97     |
| 40) Styrene                   | 18.22 | 104  | 100466   | 1.10 | ug/L  | 96     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

085

Data File : d:\hpchem\1\data\c8619.d  
Acq On : 21 Jun 95 4:37 pm  
Sample : 1 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 21 17:05 1995

Vial: 3  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 16015    | 1.07 | ug/L   | 99     |
| 42) Isopropylbenzene           | 18.87 | 105  | 209607   | 1.11 | ug/L   | 88     |
| 44) Bromobenzene               | 19.42 | 156  | 38827    | 1.14 | ug/L   | 91     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 22067    | 1.31 | ug/L   | 95     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 27469    | 1.35 | ug/L # | 68     |
| 47) n-Propylbenzene            | 19.60 | 91   | 280035   | 1.14 | ug/L   | 97     |
| 48) 2-Chlorotoluene            | 19.76 | 91   | 175076   | 1.28 | ug/L   | 93     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 191455   | 1.18 | ug/L   | 78     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 171669   | 1.10 | ug/L   | 100    |
| 51) tert-Butylbenzene          | 20.52 | 119  | 180983   | 1.11 | ug/L   | 98     |
| 52) 1,2,4-Trimethylbenzene     | 20.60 | 105  | 161019   | 1.12 | ug/L   | 99     |
| 53) sec-Butylbenzene           | 20.92 | 105  | 263359   | 1.09 | ug/L   | 100    |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 79914    | 1.15 | ug/L   | 94     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 188397   | 1.05 | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.27 | 146  | 81648    | 1.18 | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.95 | 146  | 62416    | 1.20 | ug/L   | 95     |
| 59) n-Butylbenzene             | 21.93 | 91   | 211185   | 1.09 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.35 | 75   | 5150     | 1.21 | ug/L # | 69     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 44250    | 1.16 | ug/L   | 95     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 47861    | 1.04 | ug/L   | 95     |
| 63) Naphthalene                | 25.38 | 128  | 43576    | 1.32 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 33571    | 1.26 | ug/L   | 91     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 59856    | 1.44 | ug/L   | 94     |
| 66) tert-Butyl Alcohol         | 8.76  | 59   | 1029     | 1.61 | ug/L   | 100    |

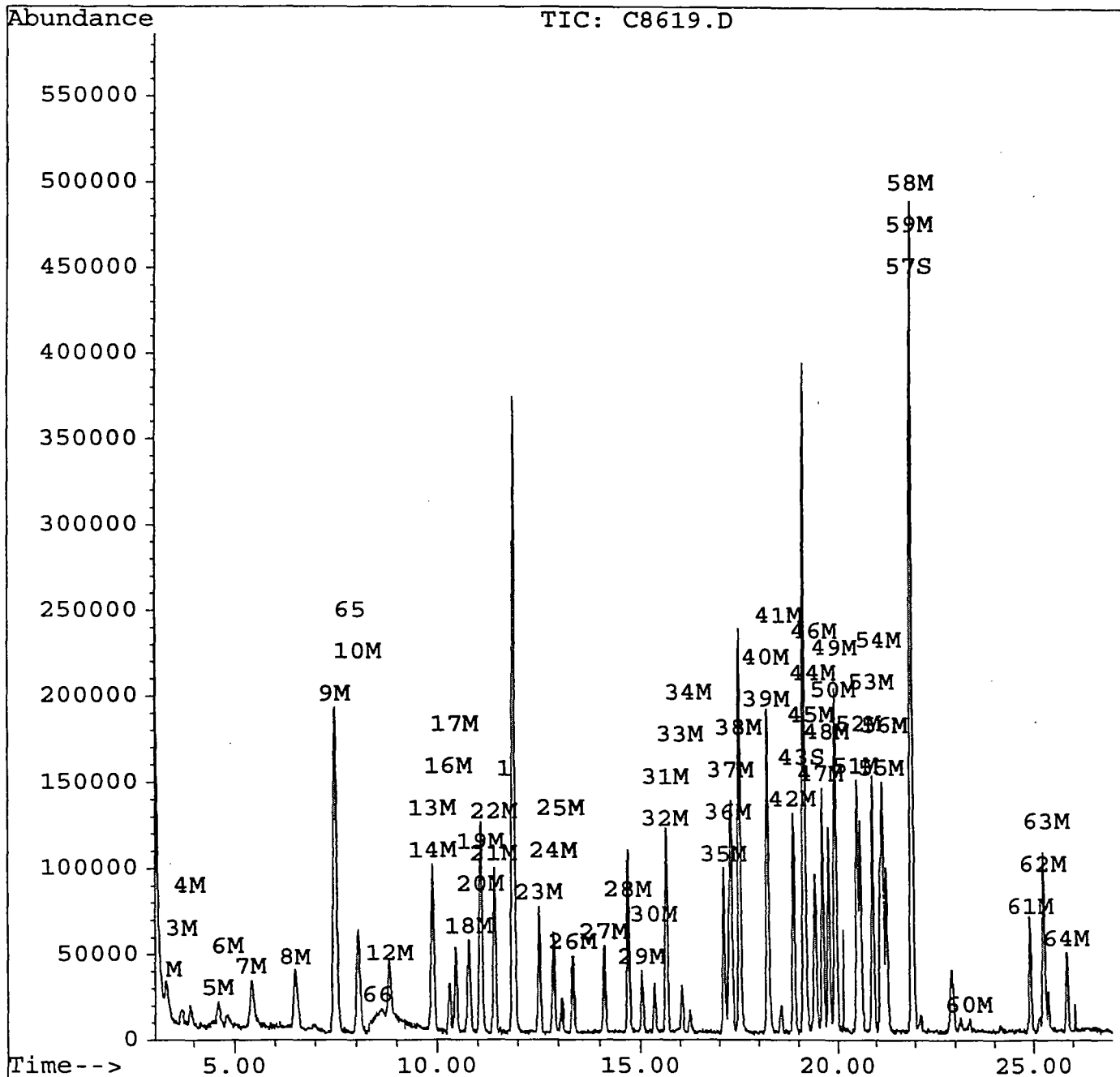
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8619.d  
 Acq On : 21 Jun 95 4:37 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 21 17:05 1995

Vial: 3 086  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



# Quantitation Report

Data File : d:\hpchem\1\data\c8631.d  
 Acq On : 21 Jun 95 11:31 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 22 15:30 1995

Vial: 15 087  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.91 | 96   | 733483   | 5.00 | ug/L  | 0.07      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.15 | 95   | 362015   | 4.95 | ug/L  | 98.95%    |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 162941   | 4.88 | ug/L  | 97.50%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 500381   | 8.61  | ug/L  | 98     |
| 3) Chloromethane              | 3.72  | 50   | 325700   | 9.52  | ug/L  | 96     |
| 4) Vinyl chloride             | 3.94  | 62   | 387791   | 10.05 | ug/L  | 99     |
| 5) Bromomethane               | 4.59  | 94   | 283025   | 10.85 | ug/L  | 98     |
| 6) Chloroethane               | 4.85  | 64   | 251852   | 11.14 | ug/L  | 98     |
| 7) Trichlorofluoromethane     | 5.44  | 101  | 890835   | 10.33 | ug/L  | 99     |
| 8) 1,1-Dichloroethene         | 6.52  | 96   | 385360   | 10.18 | ug/L  | 87     |
| 9) Methylene chloride         | 7.49  | 84   | 503026   | 12.52 | ug/L  | 98     |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 405437   | 10.14 | ug/L  | 91     |
| 12) 1,1-Dichloroethane        | 8.84  | 63   | 851504   | 10.65 | ug/L  | 97     |
| 13) 2,2-Dichloropropane       | 9.91  | 77   | 675028   | 8.61  | ug/L  | 99     |
| 14) cis-1,2-Dichloroethene    | 9.90  | 96   | 373225   | 9.90  | ug/L  | 89     |
| 16) Bromochloromethane        | 10.32 | 128  | 124422   | 9.42  | ug/L  | 92     |
| 17) Chloroform                | 10.47 | 83   | 777600   | 10.36 | ug/L  | 99     |
| 18) 1,1,1-Trichloroethane     | 10.80 | 97   | 859952   | 10.35 | ug/L  | 97     |
| 19) Carbon tetrachloride      | 11.10 | 117  | 769602   | 9.98  | ug/L  | 98     |
| 20) 1,1-Dichloropropene       | 11.09 | 75   | 748160   | 10.31 | ug/L  | 98     |
| 21) Benzene                   | 11.44 | 78   | 1294310  | 10.13 | ug/L  | 97     |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 320034   | 10.21 | ug/L  | 96     |
| 23) Trichloroethene           | 12.54 | 95   | 565141   | 9.98  | ug/L  | 94     |
| 24) 1,2-Dichloropropane       | 12.90 | 63   | 436019   | 10.43 | ug/L  | 100    |
| 25) Dibromomethane            | 13.10 | 93   | 166666   | 9.84  | ug/L  | 97     |
| 26) Bromodichloromethane      | 13.36 | 83   | 588379   | 10.13 | ug/L  | 99     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 480682   | 9.57  | ug/L  | 99     |
| 28) Toluene                   | 14.71 | 92   | 913030   | 10.06 | ug/L  | 97     |
| 29) trans-1,3-Dichloropropene | 15.05 | 75   | 330498   | 9.53  | ug/L  | 100    |
| 30) 1,1,2-Trichloroethane     | 15.36 | 83   | 163045   | 10.07 | ug/L  | 98     |
| 31) Tetrachloroethene         | 15.67 | 166  | 540500   | 9.50  | ug/L  | 99     |
| 32) 1,3-Dichloropropane       | 15.65 | 76   | 317615   | 9.89  | ug/L  | 96     |
| 33) Dibromochloromethane      | 16.06 | 129  | 297857   | 9.45  | ug/L  | 100    |
| 34) 1,2-Dibromomethane        | 16.26 | 107  | 217360   | 9.72  | ug/L  | 100    |
| 35) Chlorobenzene             | 17.13 | 112  | 922575   | 9.76  | ug/L  | 95     |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 358768   | 9.56  | ug/L  | 95     |
| 37) Ethylbenzene              | 17.32 | 91   | 1937349  | 10.14 | ug/L  | 96     |
| 38) Xylene (para & meta)      | 17.53 | 106  | 1345139  | 19.61 | ug/L  | 95     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 598062   | 9.85  | ug/L  | 89     |
| 40) Styrene                   | 18.24 | 104  | 905261   | 9.63  | ug/L  | 91     |

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

088

Data File : d:\hpchem\1\data\c8631.d  
 Acq On : 21 Jun 95 11:31 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 22 15:30 1995

Vial: 15  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.57 | 173  | 142040   | 9.18  | ug/L   | 90     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1910855  | 9.79  | ug/L   | 89     |
| 44) Bromobenzene               | 19.43 | 156  | 331439   | 9.42  | ug/L # | 83     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.38 | 83   | 187588   | 10.85 | ug/L   | 92     |
| 46) 1,2,3-Trichloropropane     | 19.45 | 75   | 194036   | 9.24  | ug/L # | 73     |
| 47) n-Propylbenzene            | 19.62 | 91   | 2551376  | 10.05 | ug/L   | 98     |
| 48) 2-Chlorotoluene            | 19.78 | 91   | 1481631  | 10.52 | ug/L   | 95     |
| 49) 4-Chlorotoluene            | 19.97 | 91   | 1669667  | 9.98  | ug/L m | 83     |
| 50) 1,3,5-Trimethylbenzene     | 19.94 | 105  | 1547260  | 9.58  | ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 1656024  | 9.88  | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.62 | 105  | 1430247  | 9.66  | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 2400184  | 9.66  | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.14 | 146  | 667496   | 9.30  | ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.20 | 119  | 1779229  | 9.59  | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 669011   | 9.40  | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.97 | 146  | 505440   | 9.45  | ug/L   | 97     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1948201  | 9.80  | ug/L   | 99     |
| 60) 1,2-Dibromo-3-chloropropan | 23.38 | 75   | 41556    | 9.46  | ug/L   | 86     |
| 61) 1,2,4-Trichlorobenzene     | 24.94 | 180  | 342967   | 8.72  | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.28 | 225  | 415162   | 8.76  | ug/L   | 99     |
| 63) Naphthalene                | 25.39 | 128  | 305525   | 8.98  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 244831   | 8.93  | ug/L   | 100    |
| 65) Methyl-tert butyl ether    | 8.09  | 73   | 421895   | 9.85  | ug/L   | 96     |
| 66) tert-Butyl Alcohol         | 7.78  | 59   | 12136    | 18.48 | ug/L   | 100    |

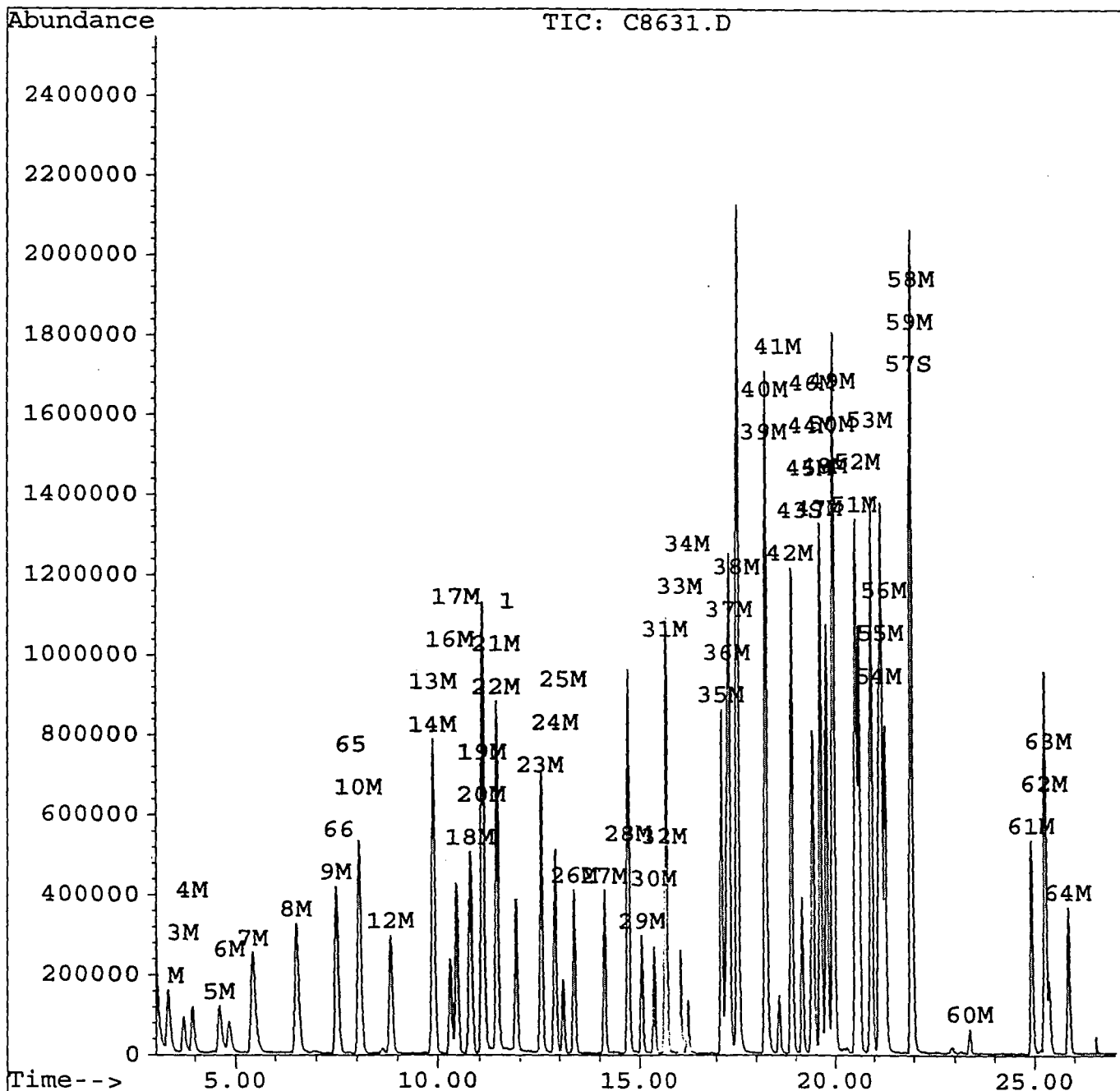
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8631.d  
 Acq On : 21 Jun 95 11:31 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 22 15:30 1995

Vial: 15 089  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration





5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

09

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: C8632.D BFB Injection Date: 6/22/95  
Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1746  
GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | %RELATIVE ABUNDANCE |
|-----|------------------------------------|---------------------|
| 50  | 8.0 - 40.0% of mass 95             | 22.4                |
| 75  | 30.0 - 66.0% of mass 95            | 47.5                |
| 95  | Base peak, 100% relative abundance | 100.0               |
| 96  | 5.0 - 9.0% of mass 95              | 6.4                 |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 )1        |
| 174 | 50.0 - 120.0% of mass 95           | 55.3                |
| 175 | 4.0 - 9.0% of mass 174             | 3.9 ( 7.0 )1        |
| 176 | 93.0 - 101.0% of mass 174          | 53.4 ( 96.5 )1      |
| 177 | 5.0 - 9.0% of mass 176             | 3.3 ( 6.1 )2        |

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO.      | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|-----------------|---------------|-------------|---------------|---------------|
| 01 | VSTD010         | 10 STND       | C8633.D     | 6/22/95       | 1803          |
| 02 | 1PPB STD        | 1PPB STD      | C8634.D     | 6/22/95       | 1838          |
| 03 | VLK01           | M. BLANK      | C8635.D     | 6/22/95       | 1913          |
| 04 | 9526458V        | 9526458V      | C8636.D     | 6/22/95       | 1948          |
| 05 | 9526459V        | 9526459V      | C8637.D     | 6/22/95       | 2023          |
| 06 | 9526432V        | 9526432V      | C8638.D     | 6/22/95       | 2058          |
| 07 | 9526433V        | 9526443V      | C8639.D     | 6/22/95       | 2133          |
| 08 | 9526434V        | 9526434V      | C8640.D     | 6/22/95       | 2207          |
| 09 | 9526436V        | 9526436V      | C8641.D     | 6/22/95       | 2242          |
| 10 | 9526462V        | 9526462V      | C8644.D     | 6/23/95       | 0027          |
| 11 | 9526435V        | 9526435V      | C8645.D     | 6/23/95       | 0101          |
| 12 | 1PPB QCS        | 1PPB QCS      | C8646.D     | 6/23/95       | 0136          |
| 13 | 10 with 9116/45 | 10            |             |               |               |
| 14 |                 |               |             |               |               |
| 15 |                 |               |             |               |               |
| 16 |                 |               |             |               |               |
| 17 |                 |               |             |               |               |
| 18 |                 |               |             |               |               |
| 19 |                 |               |             |               |               |
| 20 |                 |               |             |               |               |
| 21 |                 |               |             |               |               |
| 22 |                 |               |             |               |               |

Can 153 (4.613 min): C8632.D  
BFB TUNE

092

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.10 | 1309   | 49.05 | 6139   | 69.05 | 10498  | 87.00  | 3698   |
| 37.00 | 6616   | 50.05 | 21680  | 69.85 | 728    | 88.05  | 3578   |
| 38.10 | 5252   | 51.05 | 6857   | 73.05 | 4310   | 92.05  | 1911   |
| 39.10 | 2549   | 55.05 | 749    | 74.05 | 15122  | 93.05  | 3422   |
| 40.00 | 861    | 56.10 | 1702   | 75.05 | 45872  | 94.05  | 10205  |
| 41.00 | 715    | 57.10 | 3366   | 76.05 | 4336   | 95.05  | 96592  |
| 43.10 | 986    | 60.10 | 1695   | 77.10 | 741    | 96.05  | 6166   |
| 44.00 | 1910   | 61.00 | 4996   | 78.90 | 2177   | 141.00 | 777    |
| 45.00 | 1645   | 62.00 | 4444   | 80.00 | 901    | 142.90 | 596    |
| 47.05 | 1395   | 63.00 | 3334   | 81.00 | 2125   | 173.95 | 53416  |
| 47.95 | 587    | 68.05 | 10391  | 82.00 | 541    | 174.95 | 3757   |

Can 153 (4.613 min): C8632.D  
BFB TUNE

| m/z    | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|--------|--------|-----|--------|-----|--------|-----|--------|
| 175.95 | 51568  |     |        |     |        |     |        |
| 176.95 | 3141   |     |        |     |        |     |        |

## VOLATILE CONTINUING CALIBRATION CHECK

093

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 6/22/95Time: 1803Lab File ID: C8633.DInit. Calib. Date(s): 5/26/95Heated Purge: (Y/N) N

Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7ID: 0.53 (mm)

| COMPOUND                  | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|---------------------------|-------|-------|------------|-------|-----------|
| Dichlorodifluoromethane   | 0.396 | 0.283 |            | 28.5  | 30.0      |
| Chloromethane             | 0.233 | 0.178 |            | 23.6  | 30.0      |
| Vinyl chloride            | 0.263 | 0.225 |            | 14.4  | 30.0      |
| Bromomethane              | 0.178 | 0.174 |            | 2.2   | 30.0      |
| Chloroethane              | 0.154 | 0.160 |            | -3.9  | 30.0      |
| Trichlorofluoromethane    | 0.588 | 0.565 |            | 3.9   | 30.0      |
| 1,1-Dichloroethene        | 0.258 | 0.252 |            | 2.3   | 30.0      |
| Methylene chloride        | 0.274 | 0.341 |            | -24.5 | 30.0      |
| trans-1,2-Dichloroethene  | 0.273 | 0.276 |            | -1.1  | 30.0      |
| 1,1-Dichloroethane        | 0.545 | 0.573 |            | -5.1  | 30.0      |
| 2,2-Dichloropropane       | 0.534 | 0.561 |            | -5.1  | 30.0      |
| cis-1,2-Dichloroethene    | 0.257 | 0.257 |            | 0.0   | 30.0      |
| Bromochloromethane        | 0.090 | 0.086 |            | 4.4   | 30.0      |
| Chloroform                | 0.512 | 0.532 |            | -3.9  | 30.0      |
| 1,1,1-Trichloroethane     | 0.566 | 0.588 |            | -3.9  | 30.0      |
| Carbon tetrachloride      | 0.526 | 0.526 |            | 0.0   | 30.0      |
| 1,1-Dichloropropene       | 0.495 | 0.516 |            | -4.2  | 30.0      |
| Benzene                   | 0.871 | 0.880 |            | -1.0  | 30.0      |
| 1,2-Dichloroethane        | 0.214 | 0.230 |            | -7.5  | 30.0      |
| Trichloroethene           | 0.386 | 0.395 |            | -2.3  | 30.0      |
| 1,2-Dichloropropane       | 0.285 | 0.308 |            | -8.1  | 30.0      |
| Dibromomethane            | 0.115 | 0.120 |            | -4.3  | 30.0      |
| Bromodichloromethane      | 0.396 | 0.420 |            | -6.1  | 30.0      |
| cis-1,3-Dichloropropene   | 0.342 | 0.361 |            | -5.6  | 30.0      |
| Toluene                   | 0.619 | 0.634 |            | -2.4  | 30.0      |
| trans-1,3-Dichloropropene | 0.236 | 0.251 |            | -6.4  | 30.0      |
| 1,1,2-Trichloroethane     | 0.110 | 0.116 |            | -5.5  | 30.0      |
| Tetrachloroethene         | 0.388 | 0.374 |            | 3.6   | 30.0      |
| 1,3-Dichloropropane       | 0.219 | 0.229 |            | -4.6  | 30.0      |
| Dibromochloromethane      | 0.215 | 0.217 |            | -0.9  | 30.0      |
| 1,2-Dibromomethane        | 0.152 | 0.156 |            | -2.6  | 30.0      |
| Chlorobenzene             | 0.644 | 0.643 |            | 0.2   | 30.0      |
| 1,1,1,2-Tetrachloroethane | 0.256 | 0.256 |            | 0.0   | 30.0      |
| Ethylbenzene              | 1.302 | 1.372 |            | -5.4  | 30.0      |
| Xylene (para & meta)      | 0.468 | 0.469 |            | -0.2  | 30.0      |
| Xylene (Ortho)            | 0.414 | 0.422 |            | -1.9  | 30.0      |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

094

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/22/95 Time: 1803

Lab File ID: C8633.D Init. Calib. Date(s): 5/26/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

| COMPOUND                    | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|-----------------------------|-------|-------|------------|-------|-----------|
| Styrene                     | 0.641 | 0.649 |            | -1.2  | 30.0      |
| Bromoform                   | 0.105 | 0.107 |            | -1.9  | 30.0      |
| Isopropylbenzene            | 1.330 | 1.353 |            | -1.7  | 30.0      |
| Bromobenzene                | 0.240 | 0.240 |            | 0.0   | 30.0      |
| 1,1,2,2-Tetrachloroethane   | 0.118 | 0.141 |            | -19.5 | 30.0      |
| 1,2,3-Trichloropropane      | 0.143 | 0.143 |            | 0.0   | 30.0      |
| n-Propylbenzene             | 1.731 | 1.816 |            | -4.9  | 30.0      |
| 2-Chlorotoluene             | 0.960 | 1.081 |            | -12.6 | 30.0      |
| 4-Chlorotoluene             | 1.140 | 1.195 |            | -4.8  | 30.0      |
| 1,3,5-Trimethylbenzene      | 1.101 | 1.104 |            | -0.3  | 30.0      |
| tert-Butylbenzene           | 1.142 | 1.167 |            | -2.2  | 30.0      |
| 1,2,4-Trimethylbenzene      | 1.009 | 1.039 |            | -3.0  | 30.0      |
| sec-Butylbenzene            | 1.693 | 1.712 |            | -1.1  | 30.0      |
| 1,3-Dichlorobenzene         | 0.489 | 0.486 |            | 0.6   | 30.0      |
| 4-Isopropyltoluene          | 1.264 | 1.288 |            | -1.9  | 30.0      |
| 1,4-Dichlorobenzene         | 0.485 | 0.480 |            | 1.0   | 30.0      |
| 1,2-Dichlorobenzene         | 0.364 | 0.371 |            | -1.9  | 30.0      |
| n-Butylbenzene              | 1.355 | 1.426 |            | -5.2  | 30.0      |
| 1,2-Dibromo-3-chloropropane | 0.030 | 0.032 |            | -6.7  | 30.0      |
| 1,2,4-Trichlorobenzene      | 0.268 | 0.251 |            | 6.3   | 30.0      |
| Hexachlorobutadiene         | 0.323 | 0.299 |            | 7.4   | 30.0      |
| Naphthalene                 | 0.232 | 0.221 |            | 4.7   | 30.0      |
| 1,2,3-Trichlorobenzene      | 0.187 | 0.174 |            | 7.0   | 30.0      |
| 4-Bromofluorobenzene        | 0.499 | 0.521 |            | -4.4  | 30.0      |
| 1,2-Dichlorobenzene-d4      | 0.228 | 0.239 |            | -4.8  | 30.0      |

## Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8633.D

Vial: 2

095

Acq On : 22 Jun 95 6:03 pm

Operator: SRK

Sample : 10 PPB CHK STANDARD

Inst : 5972 - In

Misc :

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound                       | AvgRF | CCRF   | %Dev  | Area% | Dev(Min) |
|--------------------------------|-------|--------|-------|-------|----------|
| Fluorobenzene                  | 1.000 | 1.000  | 0.0   | 92    | 0.06     |
| M Dichlorodifluoromethane      | 0.396 | 0.283  | 28.6  | 61    | 0.05     |
| 3 M Chloromethane              | 0.233 | 0.178  | 23.7  | 66    | 0.07     |
| M Vinyl chloride               | 0.263 | 0.225  | 14.5  | 75    | 0.06     |
| M Bromomethane                 | 0.178 | 0.174  | 1.9   | 81    | 0.06     |
| 6 M Chloroethane               | 0.154 | 0.160  | -3.9  | 86    | 0.07     |
| 7 M Trichlorofluoromethane     | 0.588 | 0.565  | 3.9   | 86    | 0.07     |
| M 1,1-Dichloroethene           | 0.258 | 0.252  | 2.3   | 87    | 0.09     |
| 9 M Methylene chloride         | 0.274 | 0.341  | -24.7 | 89    | 0.07     |
| 10 M trans-1,2-Dichloroethene  | 0.273 | 0.276  | -1.3  | 91    | 0.07     |
| Hexane                         | 0.000 | 0.000# | 0.0   | 0#    | -0.19    |
| M 1,1-Dichloroethane           | 0.545 | 0.573  | -5.1  | 96    | 0.07     |
| 13 M 2,2-Dichloropropane       | 0.534 | 0.561  | -5.0  | 94    | 0.06     |
| M cis-1,2-Dichloroethene       | 0.257 | 0.257  | -0.1  | 90    | 0.06     |
| 2-Butanone                     | 0.000 | 0.000# | 0.0   | 0#    | -0.03    |
| 16 M Bromochloromethane        | 0.090 | 0.086  | 4.1   | 90    | 0.06     |
| 17 M Chloroform                | 0.512 | 0.532  | -4.0  | 96    | 0.07     |
| M 1,1,1-Trichloroethane        | 0.566 | 0.588  | -3.8  | 95    | 0.05     |
| 19 M Carbon tetrachloride      | 0.526 | 0.526  | 0.1   | 93    | 0.06     |
| 20 M 1,1-Dichloropropene       | 0.495 | 0.516  | -4.3  | 93    | 0.06     |
| 21 M Benzene                   | 0.871 | 0.880  | -1.0  | 91    | 0.07     |
| 22 M 1,2-Dichloroethane        | 0.214 | 0.230  | -7.8  | 101   | 0.06     |
| 23 M Trichloroethene           | 0.386 | 0.395  | -2.3  | 93    | 0.05     |
| 24 M 1,2-Dichloropropane       | 0.285 | 0.308  | -8.2  | 101   | 0.06     |
| 25 M Dibromomethane            | 0.115 | 0.120  | -3.7  | 97    | 0.05     |
| 26 M Bromodichloromethane      | 0.396 | 0.420  | -6.1  | 100   | 0.06     |
| 27 M cis-1,3-Dichloropropene   | 0.342 | 0.361  | -5.4  | 99    | 0.06     |
| 28 M Toluene                   | 0.619 | 0.634  | -2.5  | 96    | 0.05     |
| 29 M trans-1,3-Dichloropropene | 0.236 | 0.251  | -6.3  | 100   | 0.06     |
| 30 M 1,1,2-Trichloroethane     | 0.110 | 0.116  | -5.1  | 99    | 0.05     |
| 31 M Tetrachloroethene         | 0.388 | 0.374  | 3.5   | 89    | 0.05     |
| 32 M 1,3-Dichloropropane       | 0.219 | 0.229  | -4.8  | 99    | 0.06     |
| 33 M Dibromochloromethane      | 0.215 | 0.217  | -0.8  | 97    | 0.05     |
| 34 M 1,2-Dibromomethane        | 0.152 | 0.156  | -2.2  | 99    | 0.05     |
| 35 M Chlorobenzene             | 0.644 | 0.643  | 0.2   | 92    | 0.04     |
| 36 M 1,1,1,2-Tetrachloroethane | 0.256 | 0.256  | -0.1  | 95    | 0.05     |
| 37 M Ethylbenzene              | 1.302 | 1.372  | -5.4  | 98    | 0.04     |
| 38 M Xylene (para & meta)      | 0.468 | 0.469  | -0.4  | 93    | 0.05     |
| 39 M Xylene (Ortho)            | 0.414 | 0.422  | -1.9  | 95    | 0.04     |
| 40 M Styrene                   | 0.641 | 0.649  | -1.2  | 95    | 0.04     |
| 41 M Bromoform                 | 0.105 | 0.107  | -1.2  | 99    | 0.05     |
| 42 M Isopropylbenzene          | 1.330 | 1.353  | -1.7  | 95    | 0.04     |

#) = Out of Range

8633.D VOA524.M

Mon Jun 26 16:02:53 1995

VOA

Page 1

## Evaluate Continuing Calibration Report

096

Data File : D:\HPCHEM\1\DATA\C8633.D  
Acq On : 22 Jun 95 6:03 pm  
Sample : 10 PPB CHK STANDARD  
Misc :

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(Min) |
|------|-----------------------------|-------|-------|-------|-------|----------|
| 3 S  | 4-Bromofluorobenzene        | 0.499 | 0.521 | -4.5  | 100   | 0.05     |
| 4 M  | Bromobenzene                | 0.240 | 0.240 | -0.1  | 95    | 0.04     |
| 45 M | 1,1,2,2-Tetrachloroethane   | 0.118 | 0.141 | -19.5 | 116   | 0.04     |
| 6 M  | 1,2,3-Trichloropropane      | 0.143 | 0.143 | 0.4   | 94    | 0.05     |
| 7 M  | n-Propylbenzene             | 1.731 | 1.816 | -4.9  | 99    | 0.04     |
| 48 M | 2-Chlorotoluene             | 0.960 | 1.081 | -12.5 | 107   | 0.04     |
| 49 M | 4-Chlorotoluene             | 1.140 | 1.195 | -4.8  | 98    | 0.05     |
| 0 M  | 1,3,5-Trimethylbenzene      | 1.101 | 1.104 | -0.2  | 95    | 0.04     |
| 1 M  | tert-Butylbenzene           | 1.142 | 1.167 | -2.2  | 96    | 0.04     |
| 52 M | 1,2,4-Trimethylbenzene      | 1.009 | 1.039 | -3.0  | 96    | 0.04     |
| 3 M  | sec-Butylbenzene            | 1.693 | 1.712 | -1.1  | 96    | 0.04     |
| 4 M  | 1,3-Dichlorobenzene         | 0.489 | 0.486 | 0.6   | 95    | 0.04     |
| 55 M | 4-Isopropyltoluene          | 1.264 | 1.288 | -1.9  | 96    | 0.04     |
| 6 M  | 1,4-Dichlorobenzene         | 0.485 | 0.480 | 1.1   | 95    | 0.03     |
| 7 S  | 1,2-Dichlorobenzene-d4      | 0.228 | 0.239 | -4.7  | 100   | 0.04     |
| 58 M | 1,2-Dichlorobenzene         | 0.364 | 0.371 | -1.9  | 97    | 0.04     |
| 59 M | n-Butylbenzene              | 1.355 | 1.426 | -5.2  | 101   | 0.04     |
| 0 M  | 1,2-Dibromo-3-chloropropane | 0.030 | 0.032 | -7.9  | 109   | 0.04     |
| 1 M  | 1,2,4-Trichlorobenzene      | 0.268 | 0.251 | 6.4   | 90    | 0.04     |
| 62 M | Hexachlorobutadiene         | 0.323 | 0.299 | 7.5   | 90    | 0.04     |
| 3 M  | Naphthalene                 | 0.232 | 0.221 | 4.5   | 92    | 0.03     |
| 4 M  | 1,2,3-Trichlorobenzene      | 0.187 | 0.174 | 6.8   | 91    | 0.04     |
| 65   | Methyl-tert butyl ether     | 0.292 | 0.311 | -6.5  | 100   | 0.08     |
| 6    | tert-Butyl Alcohol          | 0.004 | 0.005 | -16.2 | 122   | 0.04     |

## Quantitation Report

Data File : d:\hpcchem\1\data\c8633.d  
 Acq On : 22 Jun 95 6:03 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 26 15:05 1995

Vial: 2 097  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.90 | 96   | 707039   | 5.00 | ug/L  | 0.06      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 368561   | 5.23 | ug/L  | 104.51%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 168699   | 5.24 | ug/L  | 104.73%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.33  | 85   | 400026   | 7.14  | ug/L m | 95     |
| 3) Chloromethane              | 3.71  | 50   | 251760   | 7.63  | ug/L   | 96     |
| 4) Vinyl chloride             | 3.93  | 62   | 318010   | 8.55  | ug/L   | 99     |
| 5) Bromomethane               | 4.58  | 94   | 246681   | 9.81  | ug/L   | 96     |
| 6) Chloroethane               | 4.83  | 64   | 226466   | 10.39 | ug/L   | 98     |
| 7) Trichlorofluoromethane     | 5.41  | 101  | 798701   | 9.61  | ug/L   | 98     |
| 8) 1,1-Dichloroethene         | 6.51  | 96   | 356524   | 9.77  | ug/L   | 86     |
| 9) Methylene chloride         | 7.48  | 84   | 482732   | 12.47 | ug/L   | 98     |
| 10) trans-1,2-Dichloroethene  | 8.04  | 96   | 390349   | 10.13 | ug/L   | 95     |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 810081   | 10.51 | ug/L   | 98     |
| 13) 2,2-Dichloropropane       | 9.89  | 77   | 793543   | 10.50 | ug/L   | 99     |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 363873   | 10.01 | ug/L   | 91     |
| 16) Bromochloromethane        | 10.30 | 128  | 122124   | 9.59  | ug/L   | 97     |
| 17) Chloroform                | 10.46 | 83   | 752542   | 10.40 | ug/L   | 95     |
| 18) 1,1,1-Trichloroethane     | 10.78 | 97   | 831201   | 10.38 | ug/L   | 98     |
| 19) Carbon tetrachloride      | 11.10 | 117  | 743107   | 9.99  | ug/L   | 99     |
| 20) 1,1-Dichloropropene       | 11.07 | 75   | 729360   | 10.43 | ug/L   | 100    |
| 21) Benzene                   | 11.43 | 78   | 1243746  | 10.10 | ug/L   | 97     |
| 22) 1,2-Dichloroethane        | 11.43 | 62   | 325721   | 10.78 | ug/L   | 97     |
| 23) Trichloroethene           | 12.53 | 95   | 558357   | 10.23 | ug/L   | 90     |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 436098   | 10.82 | ug/L   | 100    |
| 25) Dibromomethane            | 13.09 | 93   | 169354   | 10.37 | ug/L   | 93     |
| 26) Bromodichloromethane      | 13.35 | 83   | 594136   | 10.61 | ug/L   | 97     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 509835   | 10.54 | ug/L   | 98     |
| 28) Toluene                   | 14.69 | 92   | 896828   | 10.25 | ug/L   | 98     |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 355482   | 10.63 | ug/L   | 98     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 164061   | 10.51 | ug/L   | 98     |
| 31) Tetrachloroethene         | 15.66 | 166  | 529027   | 9.65  | ug/L   | 97     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 324439   | 10.48 | ug/L   | 98     |
| 33) Dibromochloromethane      | 16.04 | 129  | 306176   | 10.08 | ug/L   | 97     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 220188   | 10.22 | ug/L   | 99     |
| 35) Chlorobenzene             | 17.11 | 112  | 909215   | 9.98  | ug/L   | 96     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 361982   | 10.01 | ug/L   | 98     |
| 37) Ethylbenzene              | 17.30 | 91   | 1940679  | 10.54 | ug/L   | 96     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 1327243  | 20.07 | ug/L   | 91     |
| 39) Xylene (Ortho)            | 18.21 | 106  | 596072   | 10.19 | ug/L   | 88     |
| 40) Styrene                   | 18.23 | 104  | 917813   | 10.12 | ug/L   | 96     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8633.d  
Acq On : 22 Jun 95 6:03 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 26 15:05 1995

Vial: 2 098  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 150927   | 10.12 | ug/L   | 84     |
| 42) Isopropylbenzene           | 18.87 | 105  | 1913330  | 10.17 | ug/L m | 0      |
| 44) Bromobenzene               | 19.42 | 156  | 339430   | 10.01 | ug/L # | 89     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 199232   | 11.95 | ug/L   | 91     |
| 46) 1,2,3-Trichloropropane     | 19.45 | 75   | 201552   | 9.96  | ug/L # | 61     |
| 47) n-Propylbenzene            | 19.61 | 91   | 2567426  | 10.49 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 1528233  | 11.25 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1689980  | 10.48 | ug/L   | 81     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 1561186  | 10.02 | ug/L   | 99     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 1650806  | 10.22 | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.60 | 105  | 1469615  | 10.30 | ug/L   | 98     |
| 53) sec-Butylbenzene           | 20.92 | 105  | 2421034  | 10.11 | ug/L   | 98     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 687840   | 9.94  | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 1821304  | 10.19 | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.27 | 146  | 678755   | 9.89  | ug/L   | 91     |
| 58) 1,2-Dichlorobenzene        | 21.95 | 146  | 525244   | 10.19 | ug/L   | 98     |
| 59) n-Butylbenzene             | 21.93 | 91   | 2015880  | 10.52 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.35 | 75   | 45709    | 10.79 | ug/L   | 94     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 354576   | 9.36  | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 422912   | 9.25  | ug/L   | 99     |
| 63) Naphthalene                | 25.36 | 128  | 313116   | 9.55  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 246300   | 9.32  | ug/L   | 97     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 439747   | 10.65 | ug/L   | 98     |
| 66) tert-Butyl Alcohol         | 7.77  | 59   | 14710    | 23.24 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

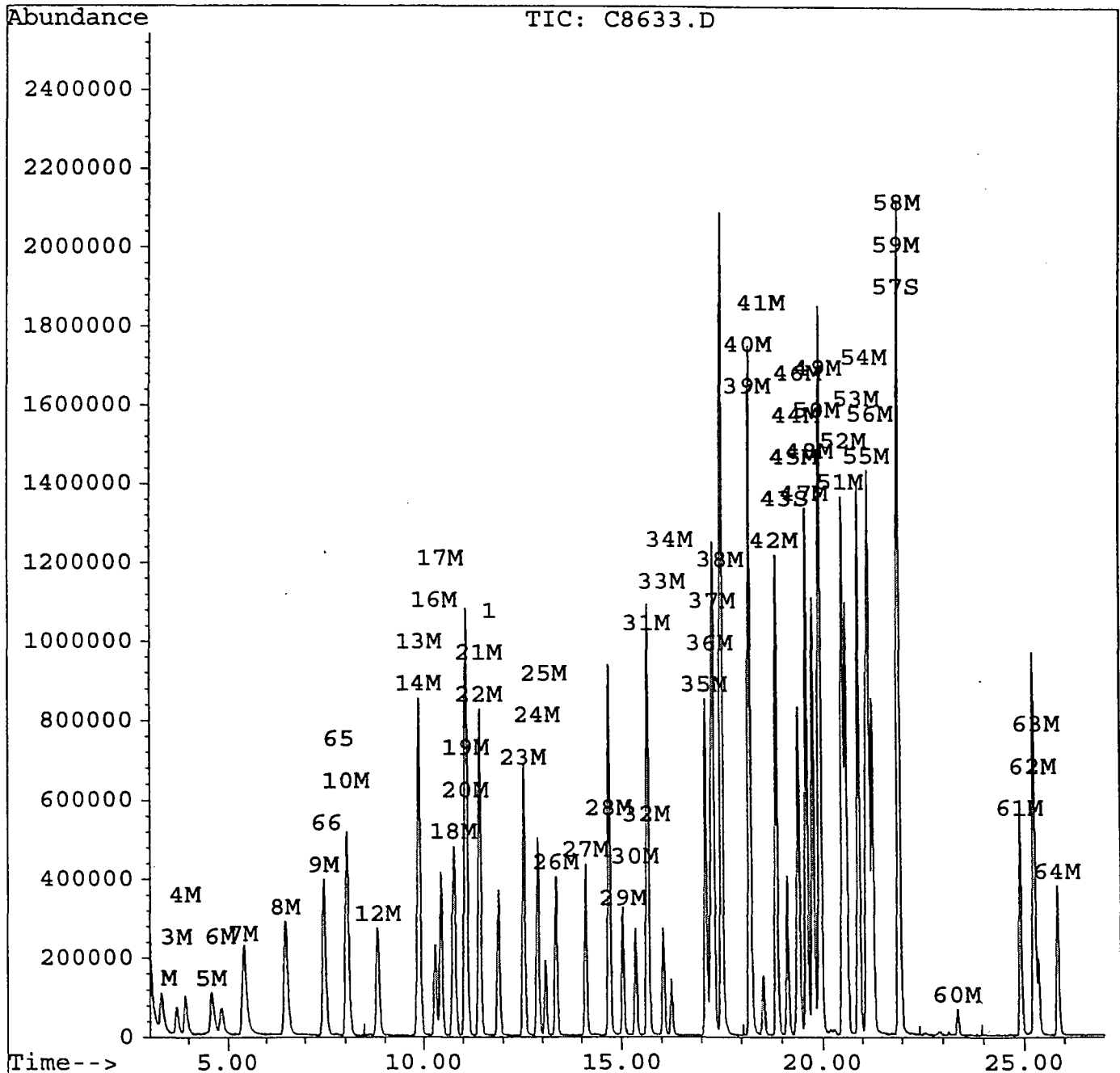


# Quantitation Report

Data File : d:\hpchem\1\data\c8633.d  
 Acq On : 22 Jun 95 6:03 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 26 15:05 1995

Vial: 2 **099**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8634.d  
 Acq On : 22 Jun 95 6:38 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 26 15:07 1995

Vial: 3  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|-------------------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene              | 11.89 | 96   | 720869   | 5.00 | ug/L  | 0.05      |
| System Monitoring Compounds   |       |      |          |      |       | %Recovery |
| 43) 4-Bromofluorobenzene      | 19.14 | 95   | 376881   | 5.24 | ug/L  | 104.82%   |
| 57) 1,2-Dichlorobenzene-d4    | 21.93 | 152  | 173226   | 5.27 | ug/L  | 105.47%   |
| Target Compounds              |       |      |          |      |       | Qvalue    |
| 2) Dichlorodifluoromethane    | 3.35  | 85   | 52366    | 0.92 | ug/L  | m 89      |
| 3) Chloromethane              | 3.71  | 50   | 28443    | 0.85 | ug/L  | 89        |
| 4) Vinyl chloride             | 3.93  | 62   | 34951    | 0.92 | ug/L  | 97        |
| 5) Bromomethane               | 4.60  | 94   | 30255    | 1.18 | ug/L  | 100       |
| 6) Chloroethane               | 4.84  | 64   | 24217    | 1.09 | ug/L  | 96        |
| 7) Trichlorofluoromethane     | 5.44  | 101  | 87747    | 1.04 | ug/L  | 89        |
| 8) 1,1-Dichloroethene         | 6.51  | 96   | 38723    | 1.04 | ug/L  | 98        |
| 9) Methylene chloride         | 7.48  | 84   | 253233   | 6.42 | ug/L  | 97        |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 40344    | 1.03 | ug/L  | 95        |
| 12) 1,1-Dichloroethane        | 8.82  | 63   | 91237    | 1.16 | ug/L  | 94        |
| 13) 2,2-Dichloropropane       | 9.88  | 77   | 88348    | 1.15 | ug/L  | 97        |
| 14) cis-1,2-Dichloroethene    | 9.89  | 96   | 40721    | 1.10 | ug/L  | 95        |
| 16) Bromochloromethane        | 10.31 | 128  | 13148    | 1.01 | ug/L  | 89        |
| 17) Chloroform                | 10.46 | 83   | 84994    | 1.15 | ug/L  | 93        |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 91676    | 1.12 | ug/L  | 93        |
| 19) Carbon tetrachloride      | 11.10 | 117  | 82388    | 1.09 | ug/L  | 91        |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 80332    | 1.13 | ug/L  | 92        |
| 21) Benzene                   | 11.42 | 78   | 140363   | 1.12 | ug/L  | 98        |
| 22) 1,2-Dichloroethane        | 11.42 | 62   | 38349    | 1.24 | ug/L  | 97        |
| 23) Trichloroethene           | 12.53 | 95   | 61556    | 1.11 | ug/L  | 95        |
| 24) 1,2-Dichloropropane       | 12.88 | 63   | 47333    | 1.15 | ug/L  | 89        |
| 25) Dibromomethane            | 13.08 | 93   | 20228    | 1.22 | ug/L  | 93        |
| 26) Bromodichloromethane      | 13.36 | 83   | 67212    | 1.18 | ug/L  | 95        |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 57322    | 1.16 | ug/L  | 98        |
| 28) Toluene                   | 14.70 | 92   | 101219   | 1.13 | ug/L  | 95        |
| 29) trans-1,3-Dichloropropene | 15.03 | 75   | 40716    | 1.19 | ug/L  | 96        |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 18476    | 1.16 | ug/L  | 96        |
| 31) Tetrachloroethene         | 15.66 | 166  | 57016    | 1.02 | ug/L  | 99        |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 36752    | 1.16 | ug/L  | 92        |
| 33) Dibromochloromethane      | 16.04 | 129  | 34925    | 1.13 | ug/L  | 89        |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 24435    | 1.11 | ug/L  | 80        |
| 35) Chlorobenzene             | 17.11 | 112  | 100462   | 1.08 | ug/L  | 94        |
| 36) 1,1,1,2-Tetrachloroethane | 17.24 | 131  | 40882    | 1.11 | ug/L  | 90        |
| 37) Ethylbenzene              | 17.31 | 91   | 210773   | 1.12 | ug/L  | 95        |
| 38) Xylene (para & meta)      | 17.51 | 106  | 144321   | 2.14 | ug/L  | 95        |
| 39) Xylene (Ortho)            | 18.21 | 106  | 64567    | 1.08 | ug/L  | 94        |
| 40) Styrene                   | 18.22 | 104  | 99352    | 1.07 | ug/L  | 95        |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

101

Data File : d:\hpchem\1\data\c8634.d  
Acq On : 22 Jun 95 6:38 pm  
Sample : 1 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 26 15:07 1995

Vial: 3  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|--------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 15703    | 1.03 | ug/L   | 78     |
| 42) Isopropylbenzene           | 18.86 | 105  | 200540   | 1.05 | ug/L   | 91     |
| 44) Bromobenzene               | 19.41 | 156  | 38255    | 1.11 | ug/L   | 94     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 22919    | 1.35 | ug/L   | 91     |
| 46) 1,2,3-Trichloropropane     | 19.43 | 75   | 27287    | 1.32 | ug/L # | 69     |
| 47) n-Propylbenzene            | 19.61 | 91   | 274490   | 1.10 | ug/L   | 96     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 167511   | 1.21 | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 189324   | 1.15 | ug/L   | 83     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 167955   | 1.06 | ug/L   | 96     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 171971   | 1.04 | ug/L   | 94     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 156608   | 1.08 | ug/L   | 97     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 255796   | 1.05 | ug/L   | 96     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 75763    | 1.07 | ug/L   | 91     |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 187739   | 1.03 | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 75376    | 1.08 | ug/L   | 83     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 59073    | 1.12 | ug/L   | 96     |
| 59) n-Butylbenzene             | 21.93 | 91   | 212368   | 1.09 | ug/L   | 94     |
| 60) 1,2-Dibromo-3-chloropropan | 23.37 | 75   | 5121     | 1.19 | ug/L # | 78     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 43546    | 1.13 | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.28 | 225  | 46685    | 1.00 | ug/L   | 94     |
| 63) Naphthalene                | 25.37 | 128  | 41411    | 1.24 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.84 | 180  | 32738    | 1.22 | ug/L   | 96     |
| 65) Methyl-tert butyl ether    | 8.06  | 73   | 59365    | 1.41 | ug/L   | 96     |

(#) = qualifier out of range (m) = manual integration

c8634.d VOA524.M

Mon Jun 26 16:20:48 1995

VOA

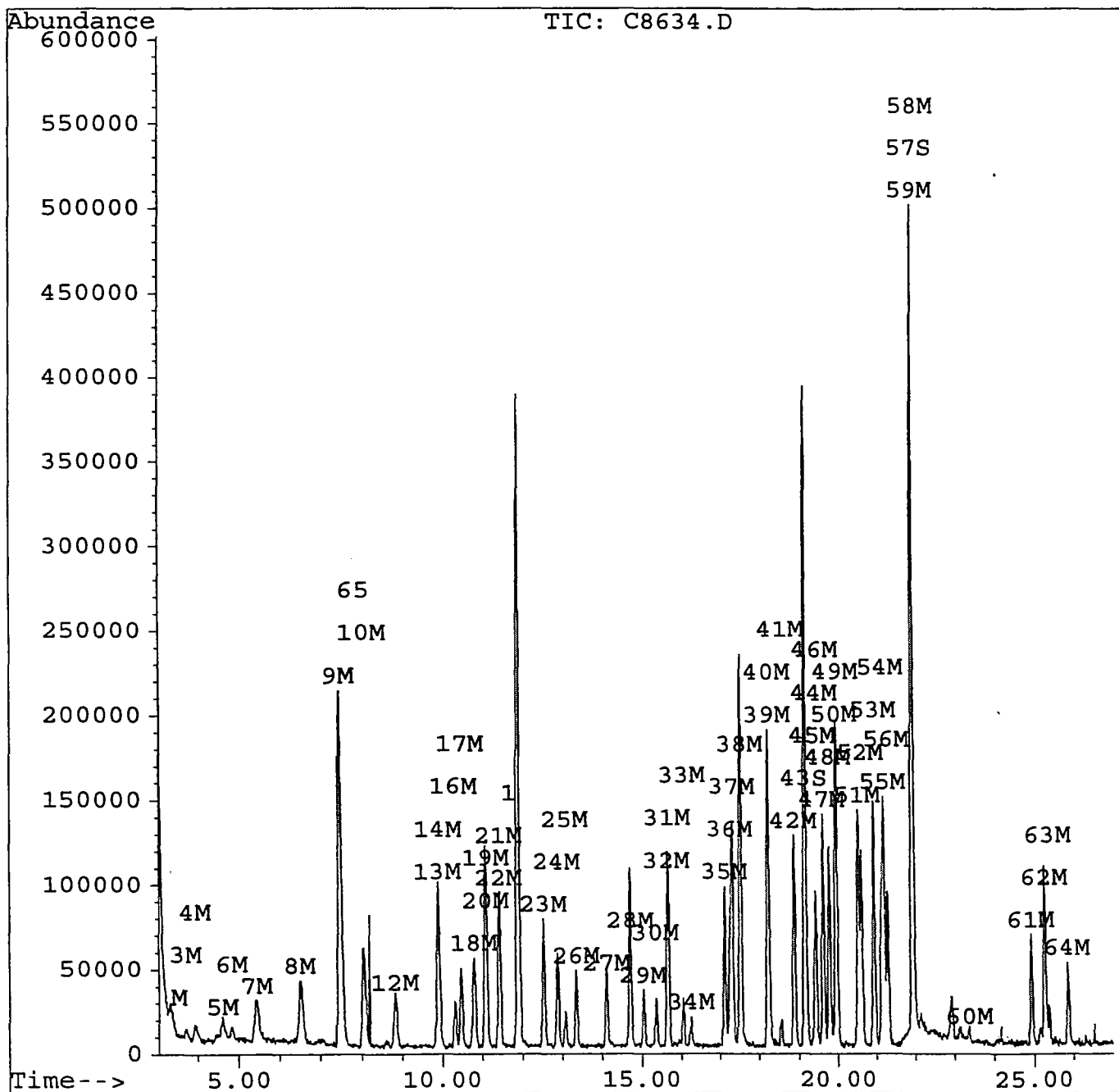
Page 2

# Quantitation Report

Data File : d:\hpchem\1\data\c8634.d  
 Acq On : 22 Jun 95 6:38 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 26 15:07 1995

Vial: 3 **102**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8646.d  
 Acq On : 23 Jun 95 1:36 am  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Jun 26 15:56 1995

Vial: 15 **103**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.90 | 96   | 695431   | 5.00 | ug/L  | 0.06      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 347953   | 5.02 | ug/L  | 100.31%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 156489   | 4.94 | ug/L  | 98.77%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.33  | 85   | 390498   | 7.08  | ug/L m | 96     |
| 3) Chloromethane              | 3.71  | 50   | 257383   | 7.93  | ug/L   | 92     |
| 4) Vinyl chloride             | 3.93  | 62   | 323389   | 8.84  | ug/L   | 98     |
| 5) Bromomethane               | 4.58  | 94   | 236508   | 9.56  | ug/L   | 99     |
| 6) Chloroethane               | 4.82  | 64   | 226428   | 10.56 | ug/L   | 96     |
| 7) Trichlorofluoromethane     | 5.42  | 101  | 794677   | 9.72  | ug/L   | 96     |
| 8) 1,1-Dichloroethene         | 6.51  | 96   | 350042   | 9.75  | ug/L   | 92     |
| 9) Methylene chloride         | 7.49  | 84   | 473820   | 12.44 | ug/L   | 96     |
| 10) trans-1,2-Dichloroethene  | 8.04  | 96   | 382661   | 10.09 | ug/L   | 94     |
| 12) 1,1-Dichloroethane        | 8.84  | 63   | 806763   | 10.64 | ug/L   | 97     |
| 13) 2,2-Dichloropropane       | 9.90  | 77   | 628678   | 8.46  | ug/L   | 97     |
| 14) cis-1,2-Dichloroethene    | 9.90  | 96   | 358518   | 10.03 | ug/L   | 98     |
| 16) Bromochloromethane        | 10.31 | 128  | 122183   | 9.76  | ug/L   | 96     |
| 17) Chloroform                | 10.47 | 83   | 742106   | 10.43 | ug/L   | 98     |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 814794   | 10.34 | ug/L   | 97     |
| 19) Carbon tetrachloride      | 11.10 | 117  | 720919   | 9.86  | ug/L   | 98     |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 697799   | 10.14 | ug/L   | 96     |
| 21) Benzene                   | 11.43 | 78   | 1224257  | 10.11 | ug/L   | 96     |
| 22) 1,2-Dichloroethane        | 11.43 | 62   | 316751   | 10.66 | ug/L   | 98     |
| 23) Trichloroethene           | 12.54 | 95   | 551232   | 10.27 | ug/L   | 93     |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 428157   | 10.80 | ug/L   | 100    |
| 25) Dibromomethane            | 13.09 | 93   | 169571   | 10.56 | ug/L   | 95     |
| 26) Bromodichloromethane      | 13.36 | 83   | 588926   | 10.69 | ug/L   | 96     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 474061   | 9.96  | ug/L   | 96     |
| 28) Toluene                   | 14.71 | 92   | 871313   | 10.13 | ug/L   | 99     |
| 29) trans-1,3-Dichloropropene | 15.05 | 75   | 328750   | 10.00 | ug/L   | 94     |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 165350   | 10.77 | ug/L   | 97     |
| 31) Tetrachloroethene         | 15.66 | 166  | 502766   | 9.33  | ug/L   | 99     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 318676   | 10.47 | ug/L   | 97     |
| 33) Dibromochloromethane      | 16.06 | 129  | 299426   | 10.02 | ug/L   | 99     |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 218305   | 10.30 | ug/L   | 94     |
| 35) Chlorobenzene             | 17.12 | 112  | 886608   | 9.89  | ug/L   | 97     |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 360221   | 10.13 | ug/L   | 94     |
| 37) Ethylbenzene              | 17.31 | 91   | 1852028  | 10.23 | ug/L   | 96     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 1270205  | 19.53 | ug/L   | 91     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 571959   | 9.94  | ug/L   | 89     |
| 40) Styrene                   | 18.23 | 104  | 881566   | 9.89  | ug/L   | 94     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8646.d  
Acq On : 23 Jun 95 1:36 am  
Sample : 10 PPB QCS  
Misc :  
Quant Time: Jun 26 15:56 1995

Vial: 15  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

104

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 147081   | 10.03 | ug/L   | 88     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1821526  | 9.84  | ug/L m | 0      |
| 44) Bromobenzene               | 19.42 | 156  | 326558   | 9.79  | ug/L   | 91     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.38 | 83   | 210572   | 12.84 | ug/L   | 100    |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 194455   | 9.77  | ug/L # | 74     |
| 47) n-Propylbenzene            | 19.61 | 91   | 2414660  | 10.03 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 1339438  | 10.03 | ug/L   | 96     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1589209  | 10.02 | ug/L   | 83     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 1475207  | 9.63  | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.52 | 119  | 1568275  | 9.87  | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 1387022  | 9.88  | ug/L   | 99     |
| 53) sec-Butylbenzene           | 20.92 | 105  | 2264992  | 9.62  | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.13 | 146  | 652659   | 9.59  | ug/L   | 96     |
| 55) 4-Isopropyltoluene         | 21.19 | 119  | 1709595  | 9.72  | ug/L   | 96     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 638409   | 9.46  | ug/L   | 90     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 492347   | 9.71  | ug/L m | 0      |
| 59) n-Butylbenzene             | 21.93 | 91   | 1889166  | 10.02 | ug/L   | 97     |
| 60) 1,2-Dibromo-3-chloropropan | 23.37 | 75   | 43161    | 10.36 | ug/L   | 87     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 334388   | 8.97  | ug/L   | 99     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 414343   | 9.22  | ug/L   | 99     |
| 63) Naphthalene                | 25.38 | 128  | 292892   | 9.08  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 238903   | 9.19  | ug/L   | 98     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 421695   | 10.38 | ug/L   | 94     |
| 66) tert-Butyl Alcohol         | 7.78  | 59   | 12439    | 19.98 | ug/L   | 100    |

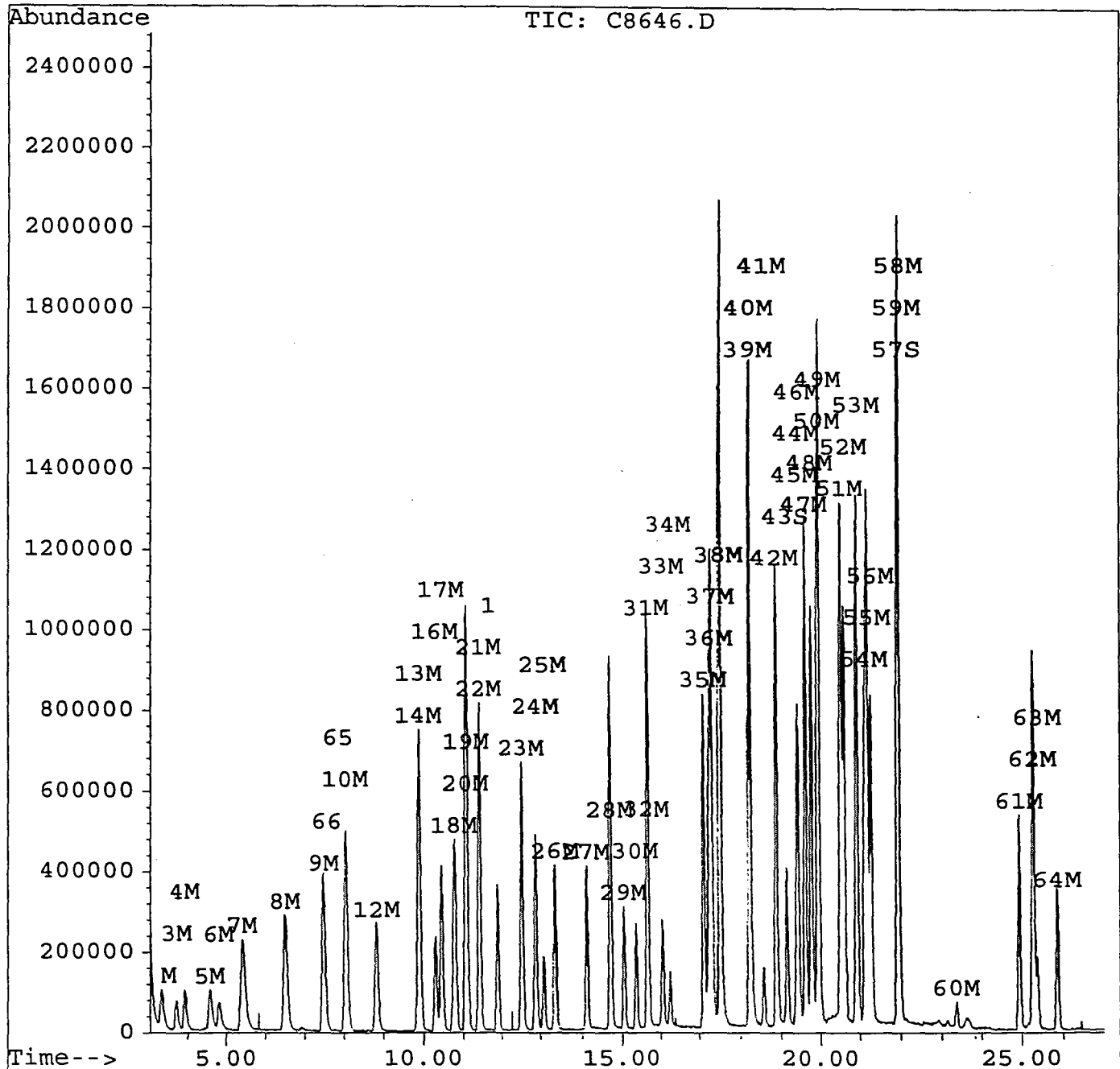
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8646.d  
 Acq On : 23 Jun 95 1:36 am  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Jun 26 15:56 1995

Vial: 15 **105**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

106

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C8680.D BFB Injection Date: 6/27/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1634  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

| m/e | ION ABUNDANCE CRITERIA             | %RELATIVE ABUNDANCE |
|-----|------------------------------------|---------------------|
| 50  | 8.0 - 40.0% of mass 95             | 20.6                |
| 75  | 30.0 - 66.0% of mass 95            | 49.6                |
| 95  | Base peak, 100% relative abundance | 100.0               |
| 96  | 5.0 - 9.0% of mass 95              | 6.4                 |
| 173 | Less than 2.0% of mass 174         | 0.0 ( 0.0 )1        |
| 174 | 50.0 - 120.0% of mass 95           | 50.2                |
| 175 | 4.0 - 9.0% of mass 174             | 4.5 ( 8.9 )1        |
| 176 | 93.0 - 101.0% of mass 174          | 50.4 ( 100.4 )1     |
| 177 | 5.0 - 9.0% of mass 176             | 3.4 ( 6.7 )2        |

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

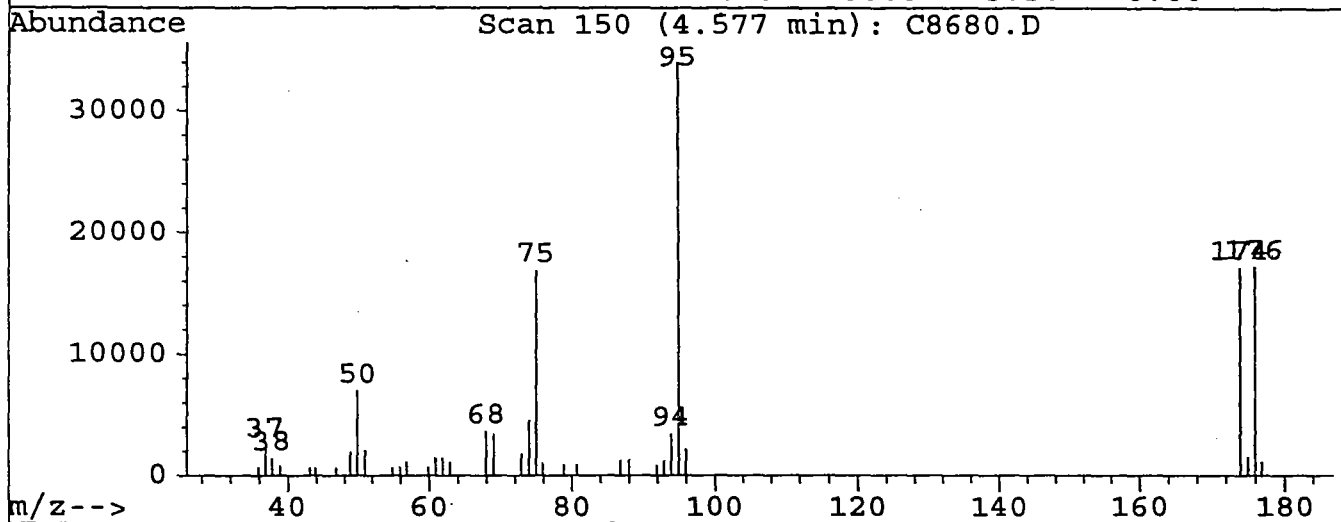
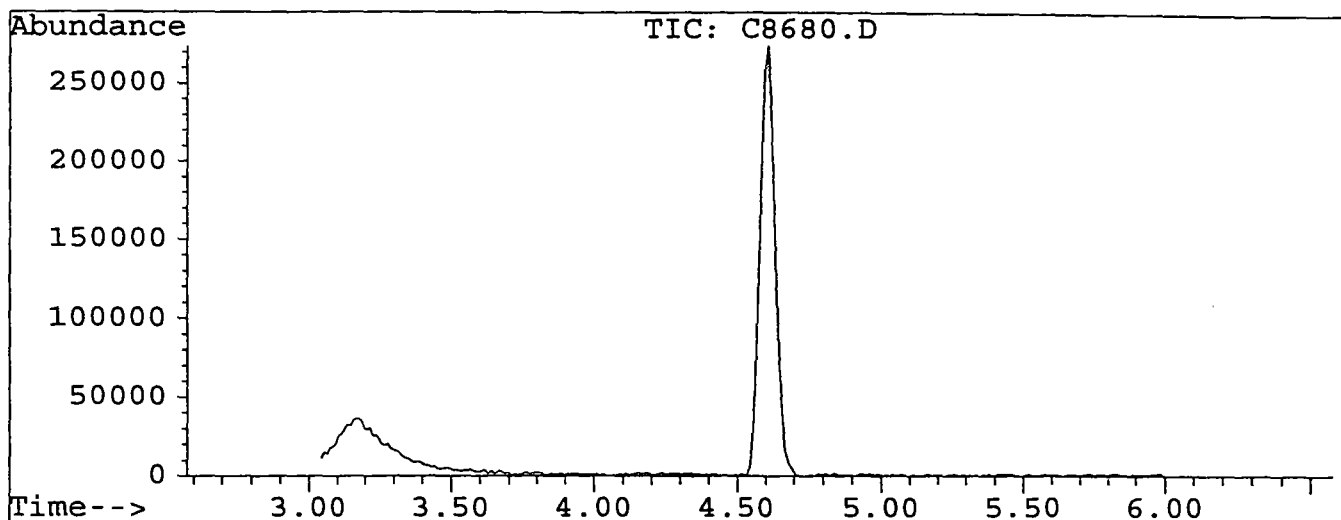
|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | VSTD010    | 10 STND       | C8681.D     | 6/27/95       | 1648          |
| 02 | 1PPB STD   | 1PPB STD      | C8682.D     | 6/27/95       | 1723          |
| 03 | VBLK01     | M. BLANK      | C8683.D     | 6/27/95       | 1757          |
| 04 | 9526604V   | 9526604V      | C8684.D     | 6/27/95       | 1831          |
| 05 | 9526605V   | 9526605V      | C8685.D     | 6/27/95       | 1905          |
| 06 | 9526797V   | 9526797V      | C8686.D     | 6/27/95       | 1939          |
| 07 | 9526798V   | 9526798V      | C8687.D     | 6/27/95       | 2013          |
| 08 | 9526609V   | 9526609V      | C8688.D     | 6/27/95       | 2047          |
| 09 | 9526460V   | 9526460V      | C8689.D     | 6/27/95       | 2121          |
| 10 | 9526799V   | 9526799V      | C8690.D     | 6/27/95       | 2155          |
| 11 | 9526800V   | 9526800V      | C8691.D     | 6/27/95       | 2230          |
| 12 | 9526801V   | 9526801V      | C8692.D     | 6/27/95       | 2304          |
| 13 | 9526608V   | 9526608V      | C8693.D     | 6/27/95       | 2338          |
| 14 | 1PPB QCS   | 1PPB QCS      | C8694.D     | 6/28/95       | 0012          |
| 15 |            |               |             |               |               |
| 16 |            |               |             |               |               |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |



Data File : D:\HPCHEM\1\DATA\C8680.D  
Acq On : 27 Jun 95 4:34 pm  
Sample : BFB TUNE  
Misc : 25 NG INJECTION

Vial: 7 107  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics



Peak Apex is scan: 150

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 20.6      | 6997    | PASS             |
| 75          | 95           | 30           | 60           | 49.6      | 16848   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 34000   | PASS             |
| 96          | 95           | 5            | 9            | 6.4       | 2181    | PASS             |
| 173         | 174          | 0            | 2            | 0.0       | 0       | PASS             |
| 174         | 95           | 50           | 100          | 50.2      | 17080   | PASS             |
| 175         | 174          | 5            | 9            | 8.9       | 1522    | PASS             |
| 176         | 174          | 95           | 101          | 100.4     | 17144   | PASS             |
| 177         | 176          | 5            | 9            | 6.7       | 1144    | PASS             |

150 (4.577 min): C8680.D  
BFB TUNE

108  
abund.  
1522  
17144  
1144

| m/z   | abund. | m/z   | abund. | m/z    | abund. | m/z    | abund. |
|-------|--------|-------|--------|--------|--------|--------|--------|
| 35.95 | 684    | 55.95 | 745    | 75.85  | 1070   | 174.90 |        |
| 36.95 | 2534   | 56.85 | 1173   | 78.90  | 942    | 175.90 |        |
| 37.85 | 1412   | 59.90 | 711    | 80.70  | 925    | 176.80 |        |
| 38.95 | 845    | 60.90 | 1495   | 86.80  | 1297   |        |        |
| 43.10 | 624    | 61.90 | 1496   | 87.95  | 1330   |        |        |
| 43.90 | 658    | 62.90 | 1147   | 91.85  | 852    |        |        |
| 46.90 | 663    | 67.90 | 3658   | 92.85  | 1205   |        |        |
| 48.90 | 1981   | 68.95 | 3466   | 93.85  | 3442   |        |        |
| 49.90 | 6997   | 72.85 | 1820   | 94.85  | 34000  |        |        |
| 50.95 | 2115   | 73.95 | 4595   | 95.85  | 2181   |        |        |
| 54.85 | 647    | 74.95 | 16848  | 173.90 | 17080  |        |        |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

109

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1

Calibration Date: 6/27/95

Time: 1648

Lab File ID: C8681.D

Init. Calib. Date(s): 6/26/95

Heated Purge: (Y/N) N

Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7

ID: 0.53 (mm)

| COMPOUND                  | RRF   | RRF10 | MIN<br>RRF | %D    | MAX<br>%D |
|---------------------------|-------|-------|------------|-------|-----------|
| Dichlorodifluoromethane   | 0.372 | 0.404 |            | -8.6  | 30.0      |
| Chloromethane             | 0.166 | 0.194 |            | -16.9 | 30.0      |
| Vinyl chloride            | 0.212 | 0.251 |            | -18.4 | 30.0      |
| Bromomethane              | 0.170 | 0.205 |            | -20.6 | 30.0      |
| Chloroethane              | 0.119 | 0.137 |            | -15.1 | 30.0      |
| Trichlorofluoromethane    | 0.594 | 0.656 |            | -10.4 | 30.0      |
| 1,1-Dichloroethene        | 0.255 | 0.286 |            | -12.2 | 30.0      |
| Methylene chloride        | 0.272 | 0.319 |            | -17.3 | 30.0      |
| trans-1,2-Dichloroethene  | 0.271 | 0.296 |            | -9.2  | 30.0      |
| 1,1-Dichloroethane        | 0.475 | 0.517 |            | -8.8  | 30.0      |
| 2,2-Dichloropropane       | 0.494 | 0.545 |            | -10.3 | 30.0      |
| cis-1,2-Dichloroethene    | 0.265 | 0.275 |            | -3.8  | 30.0      |
| Bromochloromethane        | 0.105 | 0.104 |            | 1.0   | 30.0      |
| Chloroform                | 0.511 | 0.526 |            | -2.9  | 30.0      |
| 1,1,1-Trichloroethane     | 0.571 | 0.604 |            | -5.8  | 30.0      |
| Carbon tetrachloride      | 0.541 | 0.575 |            | -6.3  | 30.0      |
| 1,1-Dichloropropene       | 0.451 | 0.487 |            | -8.0  | 30.0      |
| Benzene                   | 0.810 | 0.850 |            | -4.9  | 30.0      |
| 1,2-Dichloroethane        | 0.205 | 0.203 |            | 1.0   | 30.0      |
| Trichloroethene           | 0.390 | 0.404 |            | -3.6  | 30.0      |
| 1,2-Dichloropropane       | 0.258 | 0.257 |            | 0.4   | 30.0      |
| Dibromomethane            | 0.132 | 0.125 |            | 5.3   | 30.0      |
| Bromodichloromethane      | 0.418 | 0.411 |            | 1.7   | 30.0      |
| cis-1,3-Dichloropropene   | 0.339 | 0.333 |            | 1.8   | 30.0      |
| Toluene                   | 0.602 | 0.620 |            | -3.0  | 30.0      |
| trans-1,3-Dichloropropene | 0.244 | 0.229 |            | 6.1   | 30.0      |
| 1,1,2-Trichloroethane     | 0.118 | 0.110 |            | 6.8   | 30.0      |
| Tetrachloroethene         | 0.416 | 0.438 |            | -5.3  | 30.0      |
| 1,3-Dichloropropane       | 0.222 | 0.212 |            | 4.5   | 30.0      |
| Dibromochloromethane      | 0.258 | 0.241 |            | 6.6   | 30.0      |
| 1,2-Dibromomethane        | 0.177 | 0.162 |            | 8.5   | 30.0      |
| Chlorobenzene             | 0.683 | 0.683 |            | 0.0   | 30.0      |
| 1,1,1,2-Tetrachloroethane | 0.299 | 0.283 |            | 5.4   | 30.0      |
| Ethylbenzene              | 1.297 | 1.319 |            | -1.7  | 30.0      |
| Xylene (para & meta)      | 0.471 | 0.482 |            | -2.3  | 30.0      |
| Xylene (Ortho)            | 0.430 | 0.435 |            | -1.2  | 30.0      |

7A  
VOLATILE CONTINUING CALIBRATION CHECK

110

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/27/95 Time: 1648  
 Lab File ID: C8681.D Init. Calib. Date(s): 6/26/95  
 Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_  
 GC Column: DB-624 X 7 ID: 0.53 (mm)

| COMPOUND                    | RRF   | RRF10 | MIN<br>RRF | %D   | MAX<br>%D |
|-----------------------------|-------|-------|------------|------|-----------|
| Styrene                     | 0.668 | 0.660 |            | 1.2  | 30.0      |
| Bromoform                   | 0.137 | 0.120 |            | 12.4 | 30.0      |
| Isopropylbenzene            | 1.350 | 1.375 |            | -1.9 | 30.0      |
| Bromobenzene                | 0.286 | 0.270 |            | 5.6  | 30.0      |
| 1,1,2,2-Tetrachloroethane   | 0.148 | 0.127 |            | 14.2 | 30.0      |
| 1,2,3-Trichloropropane      | 0.150 | 0.138 |            | 8.0  | 30.0      |
| n-Propylbenzene             | 1.755 | 1.757 |            | -0.1 | 30.0      |
| 2-Chlorotoluene             | 1.045 | 0.965 |            | 7.7  | 30.0      |
| 4-Chlorotoluene             | 1.174 | 1.143 |            | 2.6  | 30.0      |
| 1,3,5-Trimethylbenzene      | 1.140 | 1.147 |            | -0.6 | 30.0      |
| tert-Butylbenzene           | 1.243 | 1.242 |            | 0.1  | 30.0      |
| 1,2,4-Trimethylbenzene      | 1.094 | 1.081 |            | 1.2  | 30.0      |
| sec-Butylbenzene            | 1.733 | 1.772 |            | -2.3 | 30.0      |
| 1,3-Dichlorobenzene         | 0.574 | 0.543 |            | 5.4  | 30.0      |
| 4-Isopropyltoluene          | 1.379 | 1.365 |            | 1.0  | 30.0      |
| 1,4-Dichlorobenzene         | 0.574 | 0.551 |            | 4.0  | 30.0      |
| 1,2-Dichlorobenzene         | 0.441 | 0.420 |            | 4.8  | 30.0      |
| n-Butylbenzene              | 1.392 | 1.410 |            | -1.3 | 30.0      |
| 1,2-Dibromo-3-chloropropane | 0.034 | 0.029 |            | 14.7 | 30.0      |
| 1,2,4-Trichlorobenzene      | 0.350 | 0.312 |            | 10.9 | 30.0      |
| Hexachlorobutadiene         | 0.376 | 0.376 |            | 0.0  | 30.0      |
| Naphthalene                 | 0.321 | 0.261 |            | 18.7 | 30.0      |
| 1,2,3-Trichlorobenzene      | 0.258 | 0.223 |            | 13.6 | 30.0      |
| 4-Bromofluorobenzene        | 0.467 | 0.502 |            | -7.5 | 30.0      |
| 1,2-Dichlorobenzene-d4      | 0.275 | 0.269 |            | 2.2  | 30.0      |

# Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8681.D

Vial: 8

111

Acq On : 27 Jun 95 4:48 pm

Operator: SRK

Sample : 10 PPB CHK STANDARD

Inst : 5972 - In

Misc :

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue Jun 27 10:34:27 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound                       | AvgRF | CCRF   | %Dev  | Area% | Dev(Min) |
|--------------------------------|-------|--------|-------|-------|----------|
| Fluorobenzene                  | 1.000 | 1.000  | 0.0   | 111   | 0.00     |
| M Dichlorodifluoromethane      | 0.372 | 0.404  | -8.6  | 118   | 0.00     |
| 3 M Chloromethane              | 0.166 | 0.194  | -16.7 | 128   | -0.02    |
| M Vinyl chloride               | 0.212 | 0.251  | -18.4 | 128   | 0.00     |
| M Bromomethane                 | 0.170 | 0.205  | -20.7 | 125   | 0.02     |
| 6 M Chloroethane               | 0.119 | 0.137  | -15.4 | 110   | 0.01     |
| M Trichlorofluoromethane       | 0.594 | 0.656  | -10.5 | 121   | 0.00     |
| M 1,1-Dichloroethene           | 0.255 | 0.286  | -12.3 | 123   | 0.01     |
| 9 M Methylene chloride         | 0.272 | 0.319  | -17.1 | 103   | 0.02     |
| 10 M trans-1,2-Dichloroethene  | 0.271 | 0.296  | -9.2  | 117   | 0.01     |
| Hexane                         | 0.000 | 0.000# | 0.0   | 0#    | -9.46#   |
| 12 M 1,1-Dichloroethane        | 0.475 | 0.517  | -8.8  | 118   | 0.00     |
| 13 M 2,2-Dichloropropane       | 0.494 | 0.545  | -10.3 | 120   | 0.00     |
| 1 M cis-1,2-Dichloroethene     | 0.265 | 0.275  | -3.5  | 112   | 0.01     |
| 2-Butanone                     | 0.000 | 0.000# | 0.0   | 0#    | 0.10     |
| 16 M Bromochloromethane        | 0.105 | 0.104  | 1.8   | 108   | 0.00     |
| 17 M Chloroform                | 0.511 | 0.526  | -2.9  | 112   | 0.01     |
| 1 M 1,1,1-Trichloroethane      | 0.571 | 0.604  | -5.8  | 115   | 0.00     |
| 19 M Carbon tetrachloride      | 0.541 | 0.575  | -6.3  | 116   | 0.00     |
| 20 M 1,1-Dichloropropene       | 0.451 | 0.487  | -7.8  | 116   | 0.00     |
| 21 M Benzene                   | 0.810 | 0.850  | -4.9  | 114   | 0.00     |
| 22 M 1,2-Dichloroethane        | 0.205 | 0.203  | 1.1   | 109   | 0.00     |
| 23 M Trichloroethene           | 0.390 | 0.404  | -3.6  | 113   | 0.00     |
| 24 M 1,2-Dichloropropane       | 0.258 | 0.257  | 0.2   | 109   | 0.01     |
| 25 M Dibromomethane            | 0.132 | 0.125  | 5.3   | 104   | 0.00     |
| 26 M Bromodichloromethane      | 0.418 | 0.411  | 1.6   | 109   | 0.01     |
| 27 M cis-1,3-Dichloropropene   | 0.339 | 0.333  | 1.7   | 109   | 0.00     |
| 28 M Toluene                   | 0.602 | 0.620  | -3.0  | 113   | 0.00     |
| 29 M trans-1,3-Dichloropropene | 0.244 | 0.229  | 6.3   | 105   | 0.00     |
| 30 M 1,1,2-Trichloroethane     | 0.118 | 0.110  | 6.9   | 103   | 0.00     |
| 31 M Tetrachloroethene         | 0.416 | 0.438  | -5.3  | 116   | 0.00     |
| 32 M 1,3-Dichloropropane       | 0.222 | 0.212  | 4.4   | 105   | 0.00     |
| 33 M Dibromochloromethane      | 0.258 | 0.241  | 6.5   | 104   | 0.00     |
| 34 M 1,2-Dibromomethane        | 0.177 | 0.162  | 8.5   | 100   | 0.00     |
| 35 M Chlorobenzene             | 0.683 | 0.683  | 0.0   | 110   | 0.00     |
| 36 M 1,1,1,2-Tetrachloroethane | 0.299 | 0.283  | 5.5   | 105   | 0.00     |
| 37 M Ethylbenzene              | 1.297 | 1.319  | -1.7  | 112   | 0.00     |
| 38 M Xylene (para & meta)      | 0.471 | 0.482  | -2.2  | 112   | 0.00     |
| 39 M Xylene (Ortho)            | 0.430 | 0.435  | -1.0  | 111   | 0.00     |
| 40 M Styrene                   | 0.668 | 0.660  | 1.2   | 108   | 0.00     |
| 41 M Bromoform                 | 0.137 | 0.120  | 12.5  | 98    | 0.00     |
| 42 M Isopropylbenzene          | 1.350 | 1.375  | -1.8  | 112   | 0.00     |

(#) = Out of Range

C8681.D VOA524.M

Wed Jun 28 10:33:21 1995

VOA

Page 1

# Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8681.D

Acq On : 27 Jun 95 4:48 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 8

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

112

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue Jun 27 10:34:27 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(Min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 1 S  | 4-Bromofluorobenzene        | 0.467 | 0.502 | -7.6 | 105   | 0.00     |
| 14 M | Bromobenzene                | 0.286 | 0.270 | 5.3  | 104   | 0.00     |
| 15 M | 1,1,2,2-Tetrachloroethane   | 0.148 | 0.127 | 13.6 | 96    | 0.00     |
| 1 M  | 1,2,3-Trichloropropane      | 0.150 | 0.138 | 8.3  | 100   | 0.01     |
| 4 M  | n-Propylbenzene             | 1.755 | 1.757 | -0.1 | 111   | 0.00     |
| 48 M | 2-Chlorotoluene             | 1.045 | 0.965 | 7.6  | 102   | 0.00     |
| 4 M  | 4-Chlorotoluene             | 1.174 | 1.143 | 2.6  | 106   | 0.00     |
| 5 M  | 1,3,5-Trimethylbenzene      | 1.140 | 1.147 | -0.7 | 110   | 0.00     |
| 51 M | tert-Butylbenzene           | 1.243 | 1.242 | 0.1  | 110   | 0.00     |
| 53 M | 1,2,4-Trimethylbenzene      | 1.094 | 1.081 | 1.2  | 109   | 0.00     |
| 5 M  | sec-Butylbenzene            | 1.733 | 1.772 | -2.2 | 113   | 0.00     |
| 54 M | 1,3-Dichlorobenzene         | 0.574 | 0.543 | 5.4  | 104   | 0.00     |
| 55 M | 4-Isopropyltoluene          | 1.379 | 1.365 | 1.0  | 109   | 0.00     |
| 5 M  | 1,4-Dichlorobenzene         | 0.574 | 0.551 | 4.0  | 107   | 0.00     |
| 5 S  | 1,2-Dichlorobenzene-d4      | 0.275 | 0.269 | 2.3  | 108   | 0.00     |
| 58 M | 1,2-Dichlorobenzene         | 0.441 | 0.420 | 4.8  | 104   | 0.00     |
| 6 M  | n-Butylbenzene              | 1.392 | 1.410 | -1.3 | 110   | 0.00     |
| 6 M  | 1,2-Dibromo-3-chloropropane | 0.034 | 0.029 | 15.6 | 96    | 0.00     |
| 61 M | 1,2,4-Trichlorobenzene      | 0.350 | 0.312 | 10.8 | 99    | 0.00     |
| 63 M | Hexachlorobutadiene         | 0.376 | 0.376 | 0.0  | 109   | 0.00     |
| 6 M  | Naphthalene                 | 0.321 | 0.261 | 18.6 | 89    | 0.00     |
| 64 M | 1,2,3-Trichlorobenzene      | 0.258 | 0.223 | 13.5 | 95    | 0.00     |
| 65   | Methyl-tert butyl ether     | 0.316 | 0.298 | 5.6  | 103   | 0.00     |
|      | tert-Butyl Alcohol          | 0.004 | 0.004 | 17.7 | 93    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

C8681.D VOA524.M

Wed Jun 28 10:33:30 1995

VOA

Page 2

## Quantitation Report

Data File : d:\hpchem\1\data\c8681.d  
 Acq On : 27 Jun 95 4:48 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 28 9:45 1995

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

113

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.90 | 96   | 409662   | 5.00 | ug/L  | 0.00      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 205760   | 5.38 | ug/L  | 107.55%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 110033   | 4.89 | ug/L  | 97.73%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.33  | 85   | 331058   | 10.86 | ug/L   | 99     |
| 3) Chloromethane              | 3.70  | 50   | 158915   | 11.67 | ug/L   | 97     |
| 4) Vinyl chloride             | 3.93  | 62   | 205871   | 11.84 | ug/L   | 100    |
| 5) Bromomethane               | 4.61  | 94   | 167927   | 12.07 | ug/L m | 92     |
| 6) Chloroethane               | 4.85  | 64   | 112552   | 11.54 | ug/L m | 99     |
| 7) Trichlorofluoromethane     | 5.42  | 101  | 537546   | 11.05 | ug/L   | 98     |
| 8) 1,1-Dichloroethene         | 6.52  | 96   | 234242   | 11.23 | ug/L   | 97     |
| 9) Methylene chloride         | 7.49  | 84   | 261358   | 11.71 | ug/L m | 97     |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 242603   | 10.92 | ug/L   | 90     |
| 12) 1,1-Dichloroethane        | 8.83  | 63   | 423332   | 10.88 | ug/L   | 100    |
| 13) 2,2-Dichloropropane       | 9.89  | 77   | 446342   | 11.03 | ug/L   | 97     |
| 14) cis-1,2-Dichloroethene    | 9.91  | 96   | 224908   | 10.35 | ug/L   | 96     |
| 16) Bromochloromethane        | 10.32 | 128  | 84845    | 9.82  | ug/L   | 89     |
| 17) Chloroform                | 10.47 | 83   | 430953   | 10.29 | ug/L   | 98     |
| 18) 1,1,1-Trichloroethane     | 10.79 | 97   | 494771   | 10.58 | ug/L   | 96     |
| 19) Carbon tetrachloride      | 11.09 | 117  | 470990   | 10.63 | ug/L   | 96     |
| 20) 1,1-Dichloropropene       | 11.08 | 75   | 398649   | 10.78 | ug/L   | 98     |
| 21) Benzene                   | 11.43 | 78   | 696498   | 10.49 | ug/L   | 99     |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 166467   | 9.89  | ug/L   | 100    |
| 23) Trichloroethene           | 12.54 | 95   | 330983   | 10.36 | ug/L   | 96     |
| 24) 1,2-Dichloropropane       | 12.90 | 63   | 210744   | 9.98  | ug/L   | 99     |
| 25) Dibromomethane            | 13.09 | 93   | 102411   | 9.47  | ug/L   | 97     |
| 26) Bromodichloromethane      | 13.37 | 83   | 336568   | 9.84  | ug/L   | 98     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 272704   | 9.83  | ug/L   | 98     |
| 28) Toluene                   | 14.71 | 92   | 508231   | 10.30 | ug/L   | 100    |
| 29) trans-1,3-Dichloropropene | 15.05 | 75   | 187258   | 9.37  | ug/L   | 97     |
| 30) 1,1,2-Trichloroethane     | 15.36 | 83   | 89907    | 9.31  | ug/L   | 97     |
| 31) Tetrachloroethene         | 15.66 | 166  | 359061   | 10.53 | ug/L   | 99     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 173495   | 9.56  | ug/L   | 98     |
| 33) Dibromochloromethane      | 16.05 | 129  | 197447   | 9.35  | ug/L   | 98     |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 132436   | 9.15  | ug/L   | 98     |
| 35) Chlorobenzene             | 17.12 | 112  | 559559   | 10.00 | ug/L   | 99     |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 231656   | 9.45  | ug/L   | 94     |
| 37) Ethylbenzene              | 17.31 | 91   | 1080678  | 10.17 | ug/L   | 98     |
| 38) Xylene (para & meta)      | 17.52 | 106  | 789073   | 20.45 | ug/L   | 98     |
| 39) Xylene (Ortho)            | 18.22 | 106  | 356277   | 10.10 | ug/L   | 96     |
| 40) Styrene                   | 18.24 | 104  | 540440   | 9.88  | ug/L   | 94     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8681.d  
Acq On : 27 Jun 95 4:48 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 28 9:45 1995

Vial: 8 114  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.55 | 173  | 98107    | 8.75  | ug/L   | 91     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1126485  | 10.18 | ug/L   | 99     |
| 44) Bromobenzene               | 19.42 | 156  | 221507   | 9.47  | ug/L   | 95     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 104402   | 8.64  | ug/L   | 93     |
| 46) 1,2,3-Trichloropropane     | 19.45 | 75   | 113039   | 9.17  | ug/L # | 50     |
| 47) n-Propylbenzene            | 19.61 | 91   | 1439550  | 10.01 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.78 | 91   | 790929   | 9.24  | ug/L   | 98     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 936482   | 9.74  | ug/L   | 99     |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 939938   | 10.07 | ug/L   | 99     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 1017705  | 9.99  | ug/L   | 99     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 885746   | 9.88  | ug/L   | 99     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 1451842  | 10.22 | ug/L   | 100    |
| 54) 1,3-Dichlorobenzene        | 21.13 | 146  | 445262   | 9.46  | ug/L   | 99     |
| 55) 4-Isopropyltoluene         | 21.19 | 119  | 1118757  | 9.90  | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.28 | 146  | 451520   | 9.60  | ug/L   | 99     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 344140   | 9.52  | ug/L   | 99     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1155581  | 10.13 | ug/L   | 99     |
| 60) 1,2-Dibromo-3-chloropropan | 23.36 | 75   | 23779    | 8.44  | ug/L   | 95     |
| 61) 1,2,4-Trichlorobenzene     | 24.94 | 180  | 255475   | 8.92  | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 308018   | 10.00 | ug/L   | 99     |
| 63) Naphthalene                | 25.38 | 128  | 214016   | 8.14  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 182973   | 8.65  | ug/L   | 93     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 244463   | 9.44  | ug/L   | 100    |
| 66) tert-Butyl Alcohol         | 7.80  | 59   | 5955     | 16.47 | ug/L m | 100    |

(#) = qualifier out of range (m) = manual integration

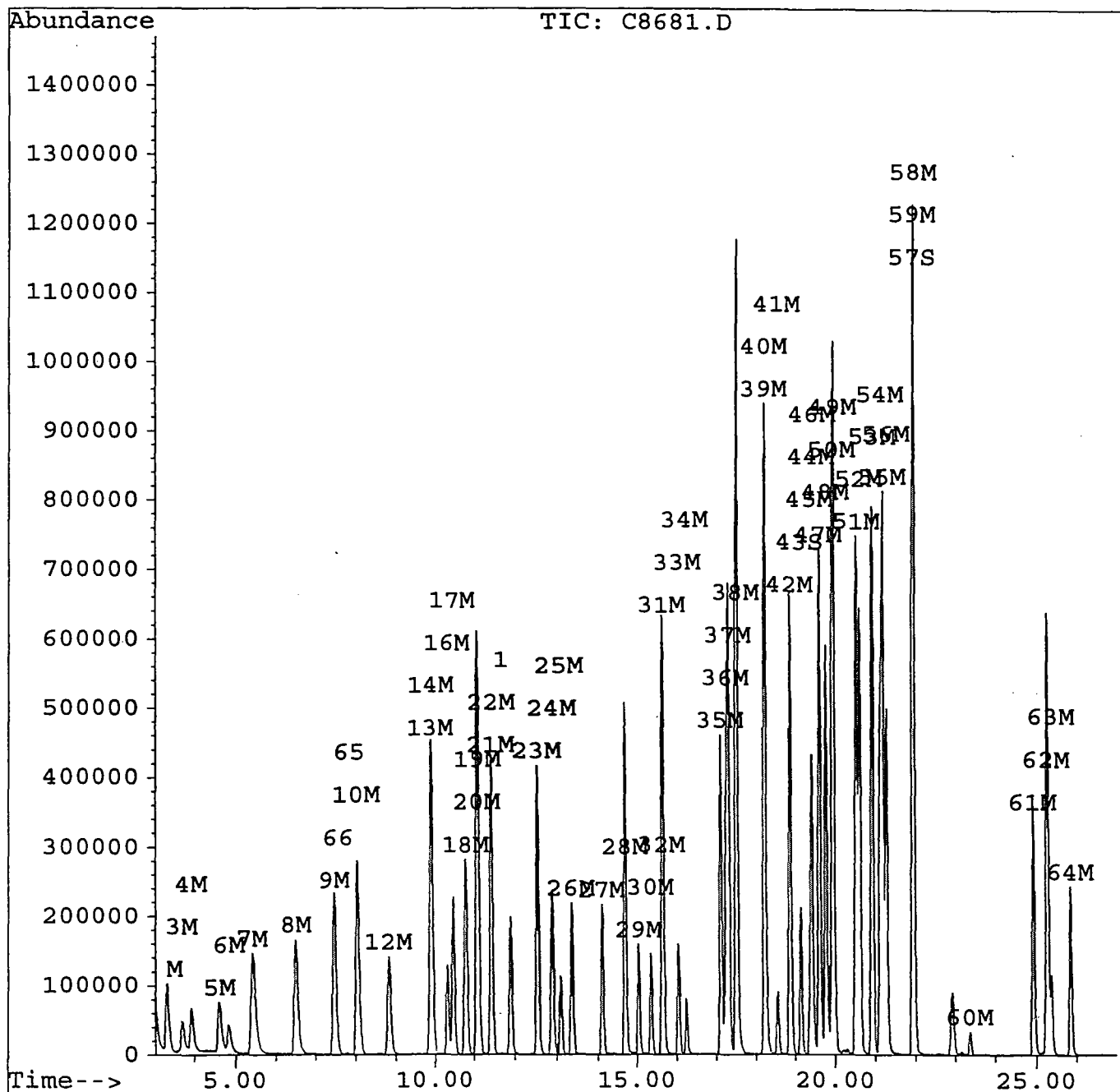


# Quantitation Report

Data File : d:\hpchem\1\data\c8681.d  
 Acq On : 27 Jun 95 4:48 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 28 9:45 1995

Vial: 8 **115**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8682.d  
 Acq On : 27 Jun 95 5:23 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 27 17:50 1995

Vial: 9 116  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc      | Units  | Dev (Min) |
|-------------------------------|-------|------|----------|-----------|--------|-----------|
| 1) Fluorobenzene              | 11.88 | 96   | 263808   | 5.00      | ug/L   | -0.02     |
| System Monitoring Compounds   |       |      |          | %Recovery |        |           |
| 43) 4-Bromofluorobenzene      | 19.14 | 95   | 137316   | 5.57      | ug/L   | 111.46%   |
| 57) 1,2-Dichlorobenzene-d4    | 21.93 | 152  | 76724    | 5.29      | ug/L   | 105.82%   |
| Target Compounds              |       |      |          | Qvalue    |        |           |
| 2) Dichlorodifluoromethane    | 3.26  | 85   | 22602    | 1.15      | ug/L   | 94        |
| 3) Chloromethane              | 3.62  | 50   | 10343    | 1.18      | ug/L   | 97        |
| 4) Vinyl chloride             | 3.86  | 62   | 12530    | 1.12      | ug/L   | 100       |
| 5) Bromomethane               | 4.54  | 94   | 12840    | 1.43      | ug/L   | 82        |
| 6) Chloroethane               | 4.77  | 64   | 7887     | 1.26      | ug/L   | 86        |
| 7) Trichlorofluoromethane     | 5.35  | 101  | 35286    | 1.13      | ug/L   | 99        |
| 8) 1,1-Dichloroethene         | 6.44  | 96   | 14764    | 1.10      | ug/L   | 89        |
| 9) Methylene chloride         | 7.42  | 84   | 114634   | 7.98      | ug/L   | 97        |
| 10) trans-1,2-Dichloroethene  | 8.00  | 96   | 16388    | 1.15      | ug/L   | 96        |
| 12) 1,1-Dichloroethane        | 8.79  | 63   | 28932    | 1.16      | ug/L   | 94        |
| 13) 2,2-Dichloropropane       | 9.86  | 77   | 30183    | 1.16      | ug/L   | 95        |
| 14) cis-1,2-Dichloroethene    | 9.86  | 96   | 15970    | 1.14      | ug/L   | 87        |
| 16) Bromochloromethane        | 10.28 | 128  | 5581     | 1.00      | ug/L   | 92        |
| 17) Chloroform                | 10.43 | 83   | 31554    | 1.17      | ug/L   | 98        |
| 18) 1,1,1-Trichloroethane     | 10.76 | 97   | 33861    | 1.12      | ug/L   | 94        |
| 19) Carbon tetrachloride      | 11.07 | 117  | 31113    | 1.09      | ug/L   | 99        |
| 20) 1,1-Dichloropropene       | 11.06 | 75   | 27263    | 1.14      | ug/L   | 97        |
| 21) Benzene                   | 11.40 | 78   | 49099    | 1.15      | ug/L   | 98        |
| 22) 1,2-Dichloroethane        | 11.41 | 62   | 11845    | 1.09      | ug/L   | 75        |
| 23) Trichloroethene           | 12.52 | 95   | 22428    | 1.09      | ug/L   | 93        |
| 24) 1,2-Dichloropropane       | 12.87 | 63   | 15280    | 1.12      | ug/L   | 86        |
| 25) Dibromomethane            | 13.07 | 93   | 7466     | 1.07      | ug/L   | 99        |
| 26) Bromodichloromethane      | 13.35 | 83   | 24509    | 1.11      | ug/L   | 99        |
| 27) cis-1,3-Dichloropropene   | 14.10 | 75   | 19184    | 1.07      | ug/L   | 99        |
| 28) Toluene                   | 14.70 | 92   | 36945    | 1.16      | ug/L   | 94        |
| 29) trans-1,3-Dichloropropene | 15.03 | 75   | 13315    | 1.03      | ug/L   | 88        |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 6291     | 1.01      | ug/L # | 86        |
| 31) Tetrachloroethene         | 15.65 | 166  | 25193    | 1.15      | ug/L   | 92        |
| 32) 1,3-Dichloropropane       | 15.63 | 76   | 12303    | 1.05      | ug/L   | 95        |
| 33) Dibromochloromethane      | 16.04 | 129  | 14502    | 1.07      | ug/L   | 98        |
| 34) 1,2-Dibromomethane        | 16.24 | 107  | 9467     | 1.02      | ug/L   | 93        |
| 35) Chlorobenzene             | 17.12 | 112  | 41128    | 1.14      | ug/L   | 93        |
| 36) 1,1,1,2-Tetrachloroethane | 17.25 | 131  | 17181    | 1.09      | ug/L   | 92        |
| 37) Ethylbenzene              | 17.31 | 91   | 76398    | 1.12      | ug/L   | 97        |
| 38) Xylene (para & meta)      | 17.52 | 106  | 55916    | 2.25      | ug/L   | 90        |
| 39) Xylene (Ortho)            | 18.21 | 106  | 26115    | 1.15      | ug/L   | 94        |
| 40) Styrene                   | 18.24 | 104  | 39324    | 1.12      | ug/L   | 92        |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpcchem\1\data\c8682.d  
Acq On : 27 Jun 95 5:23 pm  
Sample : 1 PPB CHK STANDARD  
Misc :  
Quant Time: Jun 27 17:50 1995

Vial: 9 **117**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

| Compound                      | R.T.  | QIon | Response | Conc | Unit   | Qvalue |
|-------------------------------|-------|------|----------|------|--------|--------|
| 41) Bromoform                 | 18.56 | 173  | 7207     | 1.00 | ug/L   | 86     |
| 42) Isopropylbenzene          | 18.87 | 105  | 79811    | 1.12 | ug/L   | 99     |
| 44) Bromobenzene              | 19.42 | 156  | 17152    | 1.14 | ug/L # | 87     |
| 45) 1,1,2,2-Tetrachloroethane | 19.36 | 83   | 7304     | 0.94 | ug/L   | 96     |
| 46) 1,2,3-Trichloropropane    | 19.43 | 75   | 9868     | 1.24 | ug/L   | 92     |
| 47) n-Propylbenzene           | 19.61 | 91   | 102029   | 1.10 | ug/L   | 98     |
| 48) 2-Chlorotoluene           | 19.77 | 91   | 64581    | 1.17 | ug/L   | 99     |
| 49) 4-Chlorotoluene           | 19.96 | 91   | 71389    | 1.15 | ug/L   | 96     |
| 50) 1,3,5-Trimethylbenzene    | 19.93 | 105  | 66144    | 1.10 | ug/L   | 97     |
| 51) tert-Butylbenzene         | 20.52 | 119  | 73140    | 1.12 | ug/L   | 100    |
| 52) 1,2,4-Trimethylbenzene    | 20.61 | 105  | 64279    | 1.11 | ug/L   | 99     |
| 53) sec-Butylbenzene          | 20.92 | 105  | 101804   | 1.11 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene       | 21.13 | 146  | 34724    | 1.15 | ug/L   | 97     |
| 55) 4-Isopropyltoluene        | 21.19 | 119  | 79236    | 1.09 | ug/L   | 96     |
| 56) 1,4-Dichlorobenzene       | 21.28 | 146  | 34821    | 1.15 | ug/L   | 98     |
| 58) 1,2-Dichlorobenzene       | 21.95 | 146  | 27570    | 1.18 | ug/L   | 93     |
| 59) n-Butylbenzene            | 21.94 | 91   | 82538    | 1.12 | ug/L   | 97     |
| 61) 1,2,4-Trichlorobenzene    | 24.93 | 180  | 21662    | 1.17 | ug/L   | 95     |
| 62) Hexachlorobutadiene       | 25.27 | 225  | 21927    | 1.11 | ug/L   | 93     |
| 63) Naphthalene               | 25.37 | 128  | 20937    | 1.24 | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene    | 25.84 | 180  | 16216    | 1.19 | ug/L   | 100    |
| 65) Methyl-tert butyl ether   | 8.05  | 73   | 20584    | 1.23 | ug/L   | 92     |

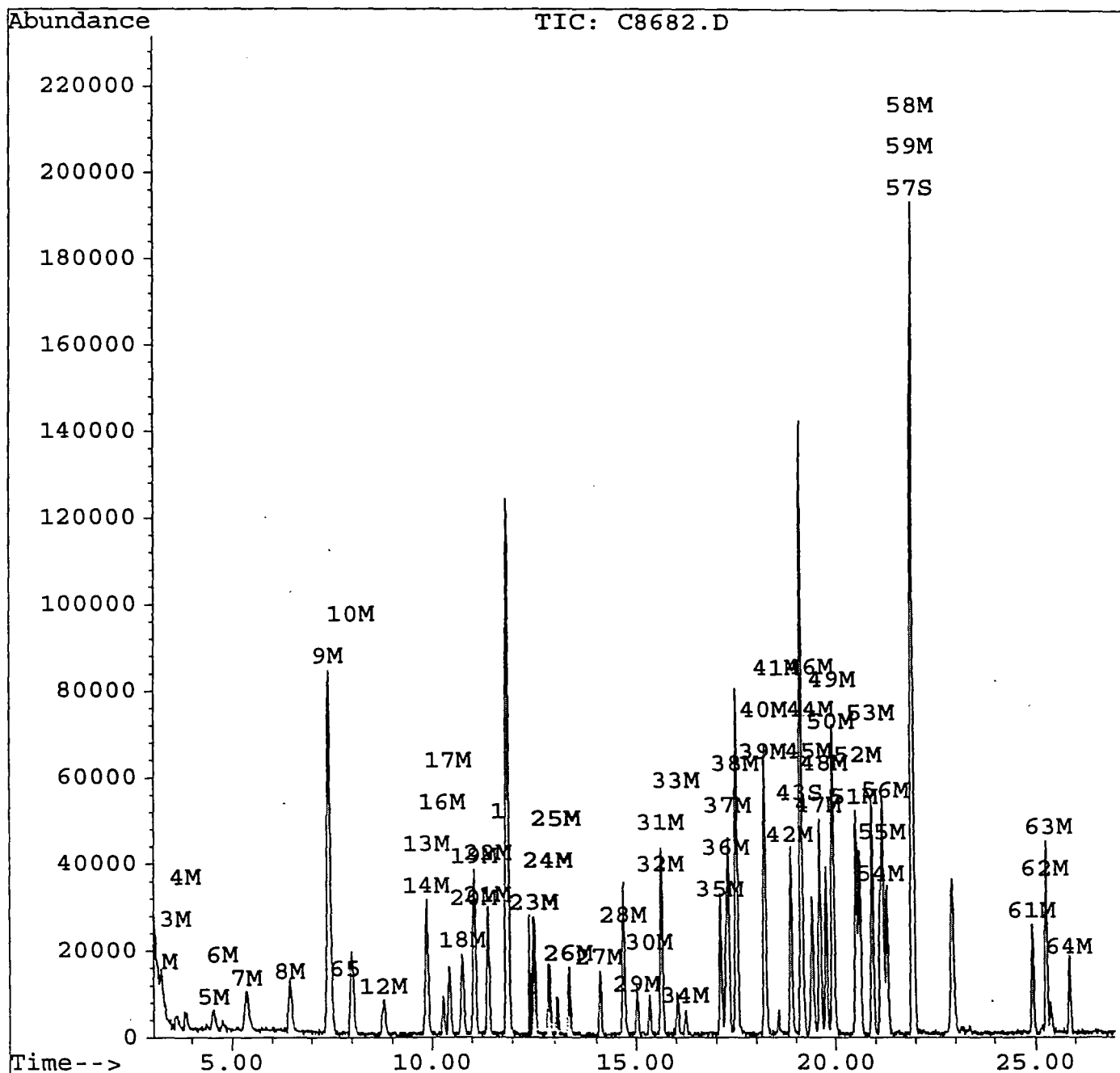
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8682.d  
 Acq On : 27 Jun 95 5:23 pm  
 Sample : 1 PPB CHK STANDARD  
 Misc :  
 Quant Time: Jun 27 17:50 1995

Vial: 9 **118**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpchem\1\data\c8694.d  
 Acq On : 28 Jun 95 12:12 am  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 28 10:32 1995

Vial: 21 **119**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev (Min) |
|-------------------------------|-------|------|----------|-------|--------|-----------|
| 1) Fluorobenzene              | 11.90 | 96   | 379632   | 5.00  | ug/L   | 0.00      |
| System Monitoring Compounds   |       |      |          |       |        | %Recovery |
| 43) 4-Bromofluorobenzene      | 19.14 | 95   | 194311   | 5.48  | ug/L   | 109.60%   |
| 57) 1,2-Dichlorobenzene-d4    | 21.93 | 152  | 104370   | 5.00  | ug/L   | 100.04%   |
| Target Compounds              |       |      |          |       |        | Qvalue    |
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 315568   | 11.17 | ug/L   | 99        |
| 3) Chloromethane              | 3.72  | 50   | 128256   | 10.16 | ug/L   | 97        |
| 4) Vinyl chloride             | 3.95  | 62   | 174736   | 10.85 | ug/L   | 97        |
| 5) Bromomethane               | 4.61  | 94   | 149044   | 11.56 | ug/L   | 95        |
| 6) Chloroethane               | 4.83  | 64   | 106070   | 11.74 | ug/L   | 92        |
| 7) Trichlorofluoromethane     | 5.43  | 101  | 475738   | 10.55 | ug/L   | 99        |
| 8) 1,1-Dichloroethene         | 6.51  | 96   | 221383   | 11.45 | ug/L   | 94        |
| 9) Methylene chloride         | 7.48  | 84   | 246490   | 11.92 | ug/L m | 96        |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 230531   | 11.20 | ug/L   | 95        |
| 12) 1,1-Dichloroethane        | 8.84  | 63   | 393805   | 10.93 | ug/L   | 97        |
| 13) 2,2-Dichloropropane       | 9.90  | 77   | 348648   | 9.30  | ug/L   | 96        |
| 14) cis-1,2-Dichloroethene    | 9.90  | 96   | 206176   | 10.24 | ug/L   | 97        |
| 16) Bromochloromethane        | 10.31 | 128  | 80040    | 10.00 | ug/L   | 92        |
| 17) Chloroform                | 10.47 | 83   | 400088   | 10.31 | ug/L   | 100       |
| 18) 1,1,1-Trichloroethane     | 10.80 | 97   | 471990   | 10.89 | ug/L   | 99        |
| 19) Carbon tetrachloride      | 11.10 | 117  | 453943   | 11.06 | ug/L   | 99        |
| 20) 1,1-Dichloropropene       | 11.09 | 75   | 384500   | 11.22 | ug/L   | 95        |
| 21) Benzene                   | 11.44 | 78   | 642985   | 10.45 | ug/L   | 100       |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 151892   | 9.74  | ug/L   | 99        |
| 23) Trichloroethene           | 12.54 | 95   | 313029   | 10.57 | ug/L   | 97        |
| 24) 1,2-Dichloropropane       | 12.89 | 63   | 201601   | 10.31 | ug/L   | 97        |
| 25) Dibromomethane            | 13.10 | 93   | 92689    | 9.25  | ug/L   | 97        |
| 26) Bromodichloromethane      | 13.36 | 83   | 312800   | 9.86  | ug/L   | 98        |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 239788   | 9.33  | ug/L   | 100       |
| 28) Toluene                   | 14.70 | 92   | 478723   | 10.47 | ug/L   | 97        |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 164860   | 8.90  | ug/L   | 99        |
| 30) 1,1,2-Trichloroethane     | 15.35 | 83   | 83657    | 9.35  | ug/L   | 96        |
| 31) Tetrachloroethene         | 15.66 | 166  | 337519   | 10.68 | ug/L   | 98        |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 159908   | 9.50  | ug/L   | 99        |
| 33) Dibromochloromethane      | 16.05 | 129  | 185310   | 9.47  | ug/L   | 97        |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 123241   | 9.19  | ug/L   | 98        |
| 35) Chlorobenzene             | 17.12 | 112  | 534718   | 10.31 | ug/L   | 98        |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 225224   | 9.92  | ug/L   | 99        |
| 37) Ethylbenzene              | 17.31 | 91   | 1018160  | 10.34 | ug/L   | 98        |
| 38) Xylene (para & meta)      | 17.52 | 106  | 740251   | 20.70 | ug/L   | 99        |
| 39) Xylene (Ortho)            | 18.22 | 106  | 337049   | 10.31 | ug/L   | 99        |
| 40) Styrene                   | 18.24 | 104  | 512024   | 10.10 | ug/L   | 99        |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8694.d  
Acq On : 28 Jun 95 12:12 am  
Sample : 10 PPB QCS  
Misc : 25 ML  
Quant Time: Jun 28 10:32 1995

Vial: 21 **120**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 89912    | 8.65  | ug/L   | 96     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1111141  | 10.84 | ug/L m | 0      |
| 44) Bromobenzene               | 19.42 | 156  | 204497   | 9.43  | ug/L   | 97     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 102400   | 9.14  | ug/L   | 94     |
| 46) 1,2,3-Trichloropropane     | 19.43 | 75   | 103256   | 9.04  | ug/L # | 85     |
| 47) n-Propylbenzene            | 19.62 | 91   | 1409392  | 10.58 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.77 | 91   | 770228   | 9.71  | ug/L   | 97     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 890343   | 9.99  | ug/L   | 100    |
| 50) 1,3,5-Trimethylbenzene     | 19.93 | 105  | 875416   | 10.12 | ug/L   | 98     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 998023   | 10.58 | ug/L   | 97     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 859065   | 10.34 | ug/L   | 99     |
| 53) sec-Butylbenzene           | 20.93 | 105  | 1410372  | 10.72 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.12 | 146  | 432969   | 9.93  | ug/L   | 100    |
| 55) 4-Isopropyltoluene         | 21.18 | 119  | 1080844  | 10.32 | ug/L   | 99     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 429940   | 9.87  | ug/L   | 98     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 319349   | 9.54  | ug/L   | 99     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1120802  | 10.60 | ug/L   | 99     |
| 60) 1,2-Dibromo-3-chloropropan | 23.36 | 75   | 21566    | 8.26  | ug/L   | 97     |
| 61) 1,2,4-Trichlorobenzene     | 24.92 | 180  | 239352   | 9.02  | ug/L   | 98     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 299893   | 10.51 | ug/L   | 98     |
| 63) Naphthalene                | 25.38 | 128  | 209564   | 8.60  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.85 | 180  | 170189   | 8.68  | ug/L   | 94     |

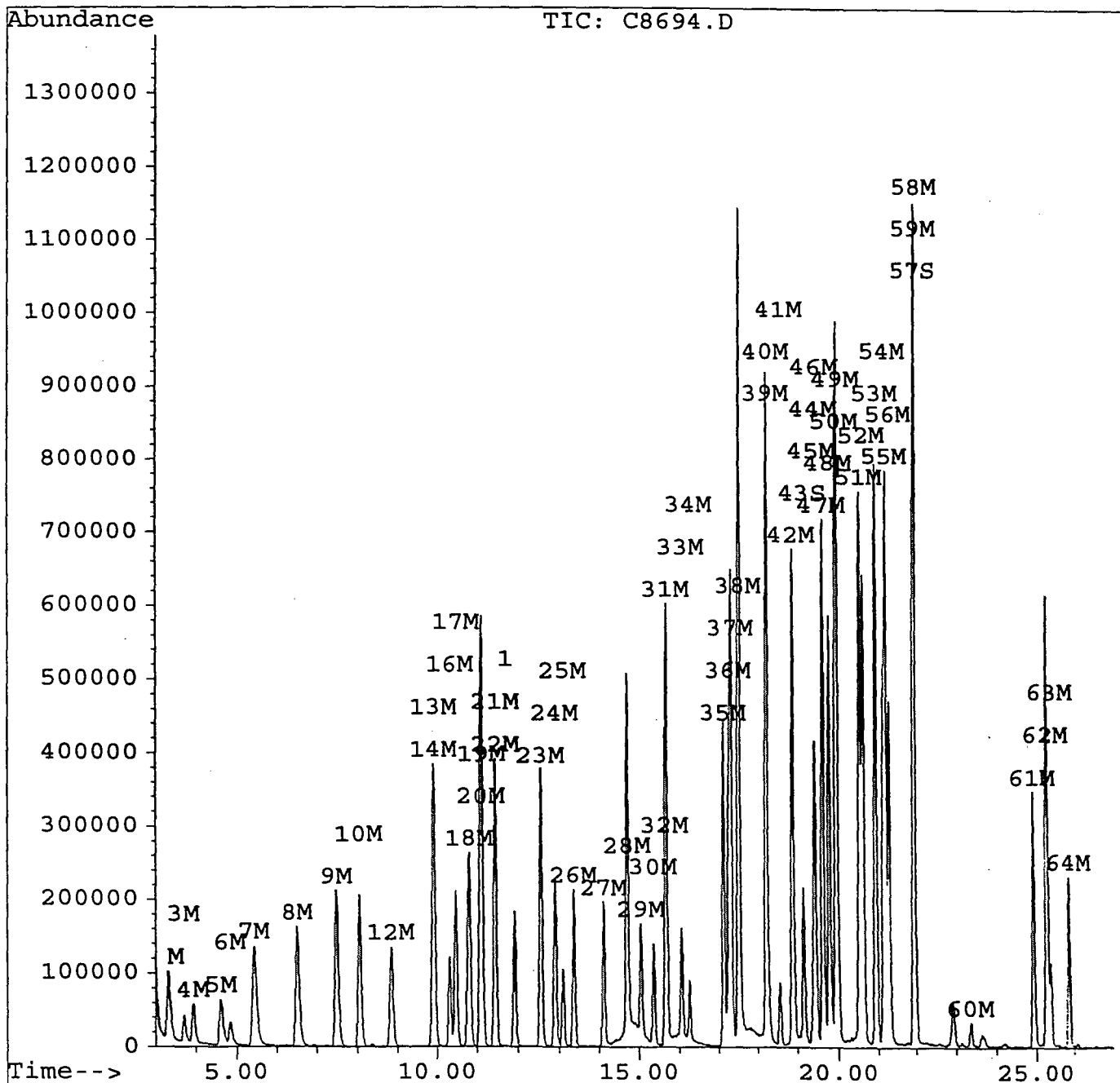
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8694.d  
 Acq On : 28 Jun 95 12:12 am  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Jun 28 10:32 1995

Vial: 21 **121**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue Jun 27 10:34:27 1995  
 Response via : Multiple Level Calibration



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

122

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): C8618.DDate Analyzed: 6/21/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1601GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

|               | IS1 (FBZ) |       |        |      |        |      |
|---------------|-----------|-------|--------|------|--------|------|
|               | AREA #    | RT #  | AREA # | RT # | AREA # | RT # |
| 8 HOUR STD    | 727435    | 11.89 |        |      |        |      |
| UPPER LIMIT   | 1454870   | 12.39 |        |      |        |      |
| LOWER LIMIT   | 363718    | 11.39 |        |      |        |      |
| SAMPLE NO.    |           |       |        |      |        |      |
| 01 1PPB STD   | 711692    | 11.89 |        |      |        |      |
| 02 VBLK01     | 698713    | 11.89 |        |      |        |      |
| 03 9525784V   | 704279    | 11.89 |        |      |        |      |
| 04 9527186V   | 683434    | 11.90 |        |      |        |      |
| 05 9526426V   | 698303    | 11.90 |        |      |        |      |
| 06 9526427V   | 692402    | 11.90 |        |      |        |      |
| 07 9526428V   | 710683    | 11.91 |        |      |        |      |
| 08 9526429V   | 725048    | 11.91 |        |      |        |      |
| 09 9526430V   | 719132    | 11.91 |        |      |        |      |
| 10 9526431V   | 725948    | 11.91 |        |      |        |      |
| 11 9526431MS  | 724230    | 11.91 |        |      |        |      |
| 12 9526431MSD | 717343    | 11.91 |        |      |        |      |
| 13 10PPBQCS   | 733483    | 11.91 |        |      |        |      |
| 14            |           |       |        |      |        |      |
| 15            |           |       |        |      |        |      |
| 16            |           |       |        |      |        |      |
| 17            |           |       |        |      |        |      |
| 18            |           |       |        |      |        |      |
| 19            |           |       |        |      |        |      |
| 20            |           |       |        |      |        |      |
| 21            |           |       |        |      |        |      |
| 22            |           |       |        |      |        |      |

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

123

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): C8633.DDate Analyzed: 6/22/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1803GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

|             | IS1 (FBZ) |       |        |      |        |      |
|-------------|-----------|-------|--------|------|--------|------|
|             | AREA #    | RT #  | AREA # | RT # | AREA # | RT # |
| 8 HOUR STD  | 707039    | 11.90 |        |      |        |      |
| UPPER LIMIT | 1414078   | 12.40 |        |      |        |      |
| LOWER LIMIT | 353520    | 11.40 |        |      |        |      |
| SAMPLE NO.  |           |       |        |      |        |      |
| 01 1PPB STD | 720869    | 11.89 |        |      |        |      |
| 02 VBLK01   | 699604    | 11.89 |        |      |        |      |
| 03 9526458V | 689776    | 11.90 |        |      |        |      |
| 04 9526459V | 693766    | 11.90 |        |      |        |      |
| 05 9526432V | 686954    | 11.90 |        |      |        |      |
| 06 9526433V | 675700    | 11.90 |        |      |        |      |
| 07 9526434V | 699291    | 11.89 |        |      |        |      |
| 08 9526436V | 718684    | 11.89 |        |      |        |      |
| 09 9526462V | 679803    | 11.90 |        |      |        |      |
| 10 9526435V | 592434    | 11.90 |        |      |        |      |
| 11 1PPB QCS | 695431    | 11.90 |        |      |        |      |
| 12          |           |       |        |      |        |      |
| 13          |           |       |        |      |        |      |
| 14          |           |       |        |      |        |      |
| 15          |           |       |        |      |        |      |
| 16          |           |       |        |      |        |      |
| 17          |           |       |        |      |        |      |
| 18          |           |       |        |      |        |      |
| 19          |           |       |        |      |        |      |
| 20          |           |       |        |      |        |      |
| 21          |           |       |        |      |        |      |
| 22          |           |       |        |      |        |      |

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

124

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): C8681.DDate Analyzed: 6/27/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1648GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

|             | IS1 (FBZ) |       |        |      |        |      |
|-------------|-----------|-------|--------|------|--------|------|
|             | AREA #    | RT #  | AREA # | RT # | AREA # | RT # |
| 8 HOUR STD  | 409662    | 11.90 |        |      |        |      |
| UPPER LIMIT | 819324    | 12.40 |        |      |        |      |
| LOWER LIMIT | 204831    | 11.40 |        |      |        |      |
| SAMPLE NO.  |           |       |        |      |        |      |
| 01 1PPB STD | 263808    | 11.88 |        |      |        |      |
| 02 VBLK01   | 390703    | 11.90 |        |      |        |      |
| 03 9526604V | 379554    | 11.90 |        |      |        |      |
| 04 9526605V | 373858    | 11.90 |        |      |        |      |
| 05 9526797V | 370831    | 11.90 |        |      |        |      |
| 06 9526798V | 373021    | 11.90 |        |      |        |      |
| 07 9526609V | 383064    | 11.90 |        |      |        |      |
| 08 9526460V | 384686    | 11.91 |        |      |        |      |
| 09 9526799V | 377715    | 11.90 |        |      |        |      |
| 10 9526800V | 375620    | 11.90 |        |      |        |      |
| 11 9526801V | 381531    | 11.90 |        |      |        |      |
| 12 9526608V | 365952    | 11.90 |        |      |        |      |
| 13 1PPB QCS | 379632    | 11.90 |        |      |        |      |
| 14          |           |       |        |      |        |      |
| 15          |           |       |        |      |        |      |
| 16          |           |       |        |      |        |      |
| 17          |           |       |        |      |        |      |
| 18          |           |       |        |      |        |      |
| 19          |           |       |        |      |        |      |
| 20          |           |       |        |      |        |      |
| 21          |           |       |        |      |        |      |
| 22          |           |       |        |      |        |      |

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

125

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

TB

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |      |
|------------|---------------------------|----------------------|------|
|            |                           | (ug/L or ug/Kg)      | ug/L |
|            |                           |                      | Q    |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U    |
| 74-87-3    | Chloromethane             | 1.9                  |      |
| 75-01-4    | Vinyl chloride            | .50                  | U    |
| 74-83-9    | Bromomethane              | .50                  | U    |
| 75-00-3    | Chloroethane              | .50                  | U    |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U    |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U    |
| 75-09-2    | Methylene chloride        | 1.8                  | B    |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U    |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U    |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U    |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U    |
| 74-97-1    | Bromochloromethane        | .50                  | U    |
| 67-66-3    | Chloroform                | .50                  | U    |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U    |
| 56-23-1    | Carbon tetrachloride      | .50                  | U    |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U    |
| 71-43-2    | Benzene                   | .50                  | U    |
| 107-06-2   | 1,2-Dichloroethane        | 12                   |      |
| 79-01-6    | Trichloroethene           | .50                  | U    |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U    |
| 74-95-3    | Dibromomethane            | .50                  | U    |
| 75-27-4    | Bromodichloromethane      | .50                  | U    |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U    |
| 108-88-3   | Toluene                   | .50                  | U    |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U    |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U    |
| 127-18-4   | Tetrachloroethene         | .50                  | U    |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U    |
| 124-48-1   | Dibromochloromethane      | .50                  | U    |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U    |
| 108-90-7   | Chlorobenzene             | .50                  | U    |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U    |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

126

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

TB

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  | U    |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  | U    |
| 135-98-8  | sec-Butylbenzene            | .50                  | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .50                  | U    |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

127

TB

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#           

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526458V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8636.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:            (uL)

Soil Aliquot Volume:            (uL)

Number TICs found: 1 Concentration Units:  
(ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name             | RT    | Est. Conc. | Q |
|-------------|---------------------------|-------|------------|---|
| 1. 107-04-0 | Ethane, 1-bromo-2-chloro- | 13.88 | 4          | J |
| 2.          |                           |       |            |   |
| 3.          |                           |       |            |   |
| 4.          |                           |       |            |   |
| 5.          |                           |       |            |   |
| 6.          |                           |       |            |   |
| 7.          |                           |       |            |   |
| 8.          |                           |       |            |   |
| 9.          |                           |       |            |   |
| 10.         |                           |       |            |   |
| 11.         |                           |       |            |   |
| 12.         |                           |       |            |   |
| 13.         |                           |       |            |   |
| 14.         |                           |       |            |   |
| 15.         |                           |       |            |   |
| 16.         |                           |       |            |   |
| 17.         |                           |       |            |   |
| 18.         |                           |       |            |   |
| 19.         |                           |       |            |   |
| 20.         |                           |       |            |   |
| 21.         |                           |       |            |   |
| 22.         |                           |       |            |   |
| 23.         |                           |       |            |   |
| 24.         |                           |       |            |   |
| 25.         |                           |       |            |   |
| 26.         |                           |       |            |   |
| 27.         |                           |       |            |   |
| 28.         |                           |       |            |   |
| 29.         |                           |       |            |   |
| 30.         |                           |       |            |   |

## Quantitation Report

128

Data File : d:\hpchem\1\data\c8636.d  
Acq On : 22 Jun 95 7:48 pm  
Sample : 9526458  
Misc : 25 ML  
Quant Time: Jun 26 15:24 1995

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 1) Fluorobenzene            | 11.90 | 96   | 689776   | 5.00  | ug/L  | 0.06      |
| System Monitoring Compounds |       |      |          |       |       | %Recovery |
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 363762   | 5.29  | ug/L  | 105.73%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.91 | 152  | 169304   | 5.39  | ug/L  | 107.73%   |
| Target Compounds            |       |      |          |       |       | Qvalue    |
| 3) Chloromethane            | 3.71  | 50   | 59780    | 1.86  | ug/L  | 94        |
| 9) Methylene chloride       | 7.48  | 84   | 68815    | 1.82  | ug/L  | 96        |
| 22) 1,2-Dichloroethane      | 11.43 | 62   | 360838   | 12.24 | ug/L  | 97        |

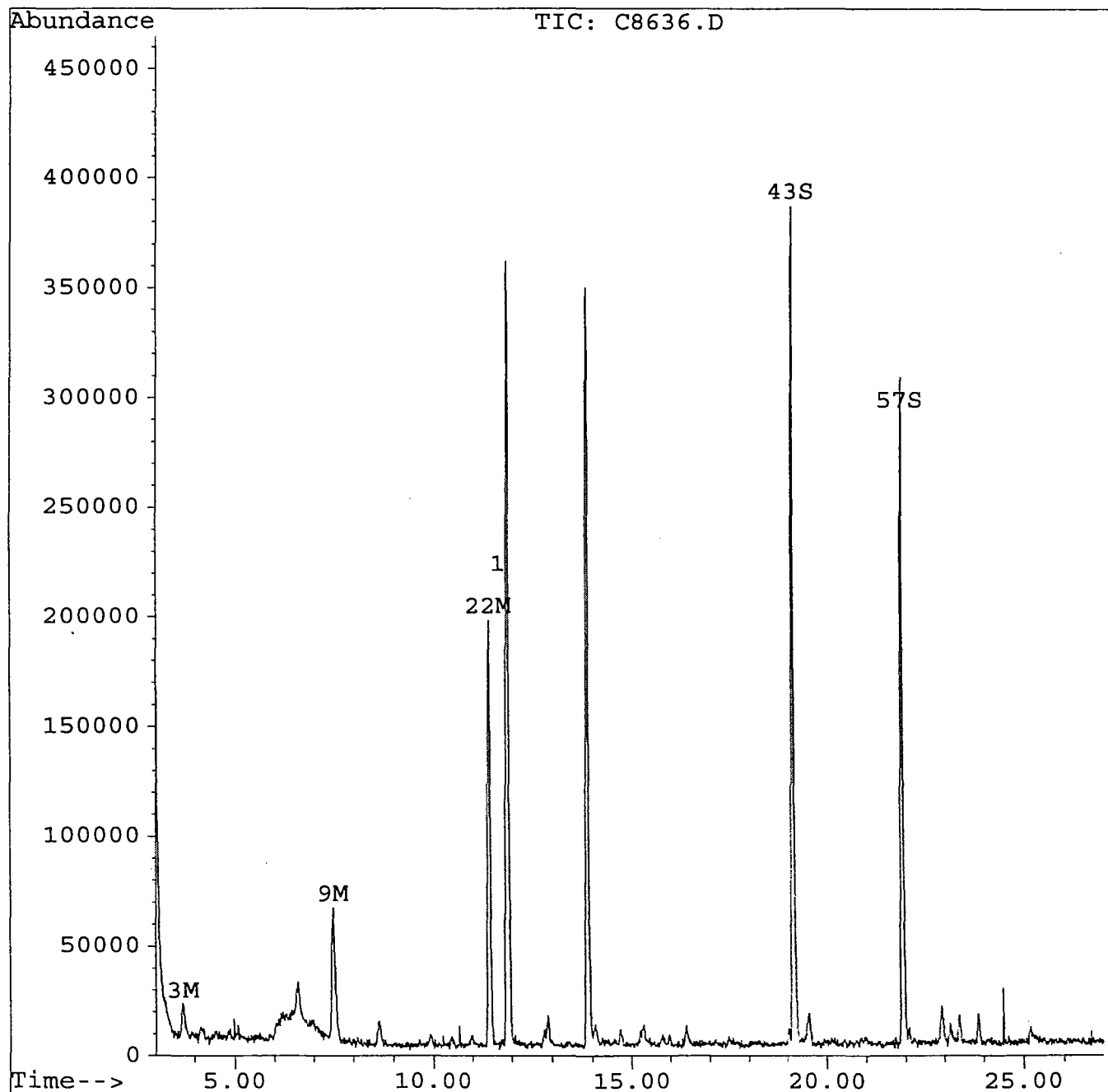
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c8636.d  
Acq On : 22 Jun 95 7:48 pm  
Sample : 9526458  
Misc : 25 ML  
Quant Time: Jun 26 15:24 1995

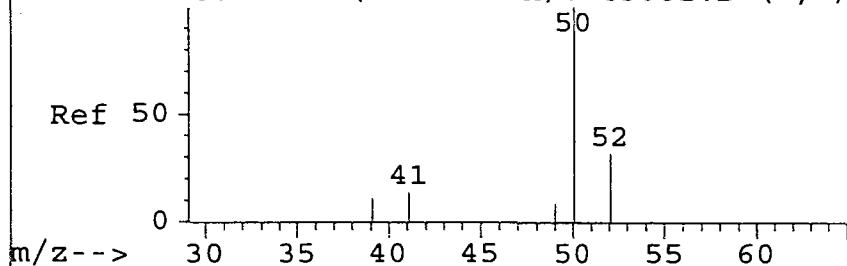
Vial: 5<sup>123</sup>  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



130

Abundance Scan 54 (3.591 min): C5082.D (-,\*)



#3

Chloromethane

Concen: 1.86 ug/L

RT: 3.71 min Scan# 66

Delta R.T. 0.07 min

Lab File: c8636.d

Acq: 22 Jun 95 7:48 pm

Tgt Ion:50 Resp: 59780

Ion Ratio Lower Upper

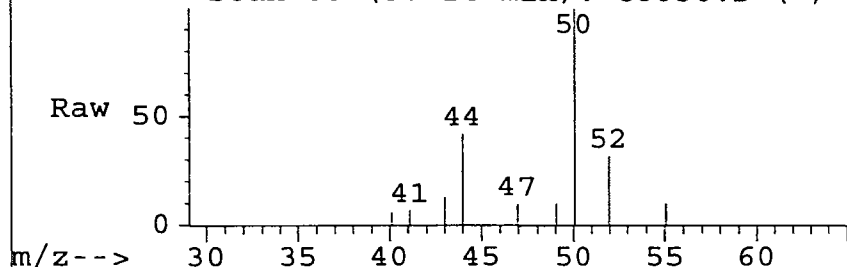
50 100

52 32.2 15.4 55.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Abundance Scan 66 (3.714 min): C8636.D (\*)



Abundance Ion 50.00 (49.

Ion 52.00 (51.

3.71

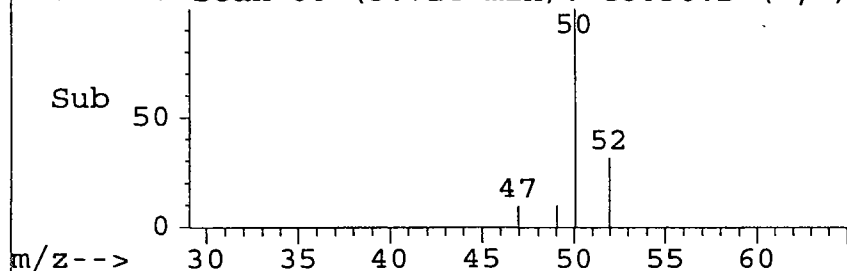
10000

5000

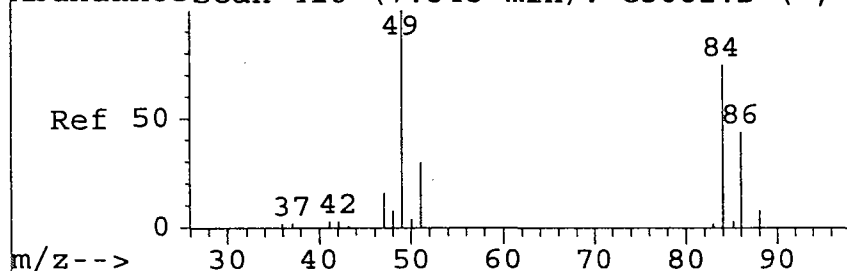
0

Time--&gt;3.45 3.98

Abundance Scan 66 (3.714 min): C8636.D (-,\*)



Abundance Scan 418 (7.345 min): C5082.D (-,\*)



#9

Methylene chloride

Concen: 1.82 ug/L

RT: 7.48 min Scan# 431

Delta R.T. 0.07 min

Lab File: c8636.d

Acq: 22 Jun 95 7:48 pm

Tgt Ion:84 Resp: 68815

Ion Ratio Lower Upper

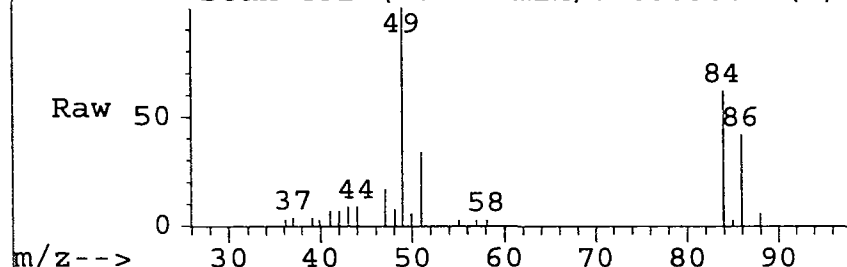
84 100

86 67.5 43.1 83.1

49 160.7 136.3 176.3

0 0.0 0.0 0.0

Abundance Scan 431 (7.478 min): C8636.D (\*)



Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.

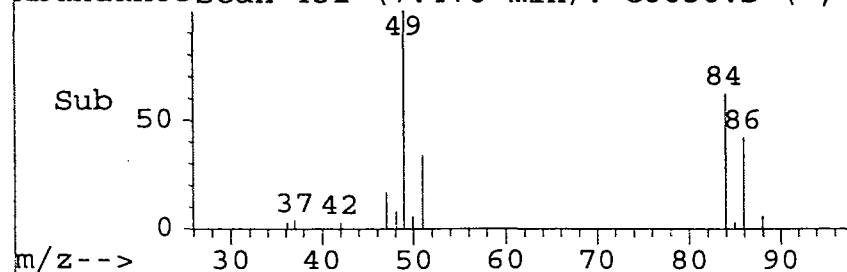
20000

10000

0

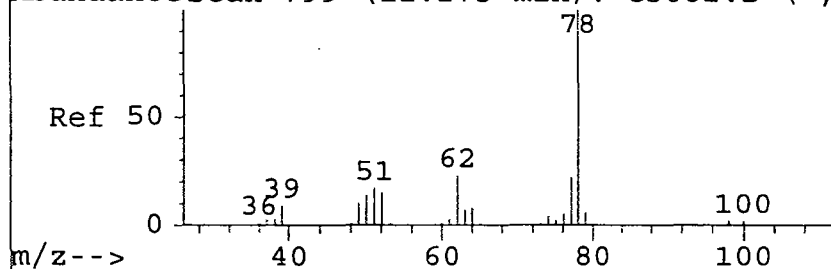
Time--&gt;7.20 7.74

Abundance Scan 431 (7.478 min): C8636.D (-,\*)

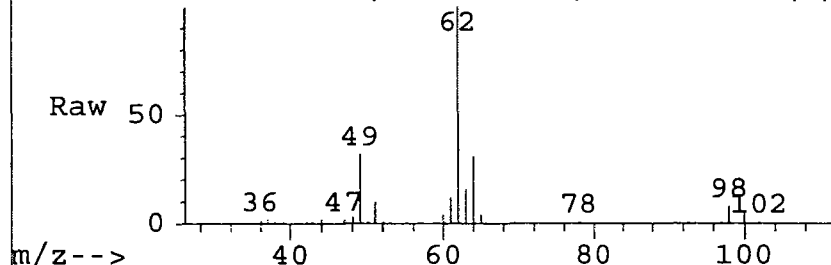




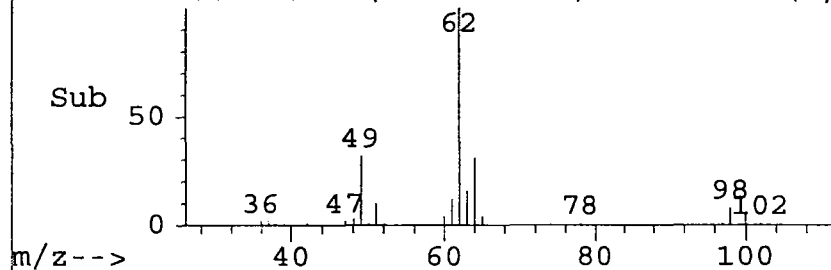
AbundanceScan 799 (11.275 min): C5082.D (-,



AbundanceScan 814 (11.426 min): C8636.D (\*)



AbundanceScan 814 (11.426 min): C8636.D (-,



#22

1,2-Dichloroethane

Concen: 12.24 ug/L

RT: 11.43 min Scan# 814

Delta R.T. 0.06 min

Lab File: c8636.d

Acq: 22 Jun 95 7:48 pm

Tgt Ion:62 Resp: 360838

Ion Ratio Lower Upper

62 100

98 8.1 0.0 29.2

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 62.00 (61.

Ion 98.00 (97.

11.43

50000

0

Time--&gt;11.16 11.67

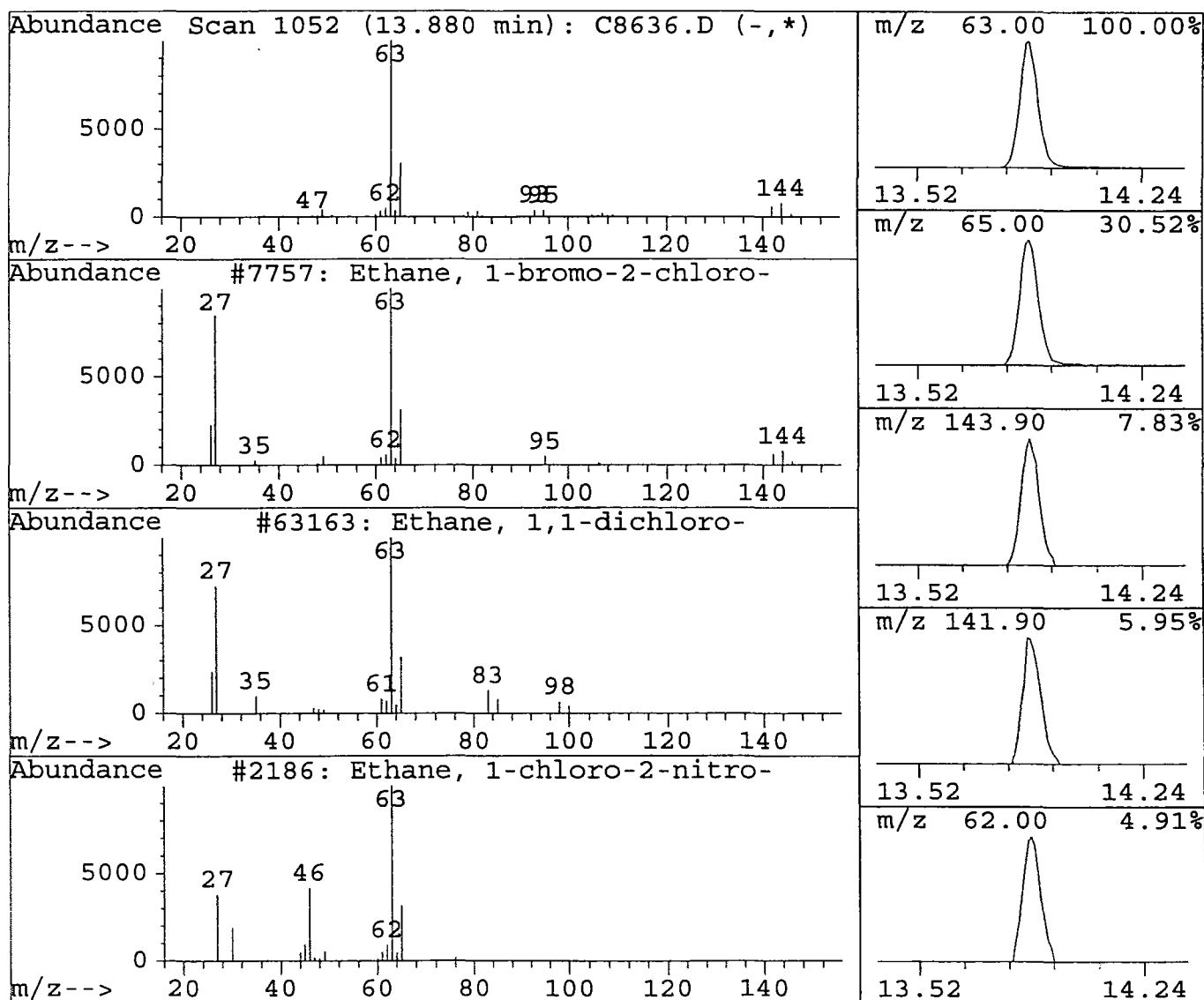
Data File : d:\hpchem\1\data\c8636.d  
Acq On : 22 Jun 95 7:48 pm  
Sample : 9526458  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area    | Relative to ISTD | R.T.  |
|-------|-----------|---------|------------------|-------|
| 13.88 | 4.33 ug/L | 1415781 | Fluorobenzene    | 11.90 |

| Hit# of 20 | Tentative ID                       | Ref#  | CAS#        | Qual |
|------------|------------------------------------|-------|-------------|------|
| 1          | Ethane, 1-bromo-2-chloro-          | 7757  | 000107-04-0 | 91   |
| 2          | Ethane, 1,1-dichloro-              | 63163 | 000075-34-3 | 9    |
| 3          | Ethane, 1-chloro-2-nitro-          | 2186  | 000625-47-8 | 9    |
| 4          | Carbonochloridic acid, ethyl ester | 63749 | 000541-41-3 | 9    |
| 5          | Phosgene                           | 63158 | 000075-44-5 | 2    |



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

133

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

FB

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

| CAS No.    | Compound                  | (ug/L or ug/Kg) | ug/L | Q |
|------------|---------------------------|-----------------|------|---|
| 75-71-8    | Dichlorodifluoromethane   | .50             |      | U |
| 74-87-3    | Chloromethane             | 1.1             |      |   |
| 75-01-4    | Vinyl chloride            | .50             |      | U |
| 74-83-9    | Bromomethane              | .50             |      | U |
| 75-00-3    | Chloroethane              | .50             |      | U |
| 75-69-4    | Trichlorofluoromethane    | .50             |      | U |
| 75-35-4    | 1,1-Dichloroethene        | .50             |      | U |
| 75-09-2    | Methylene chloride        | 1.6             |      | U |
| 156-60-65  | trans-1,2-Dichloroethene  | .50             |      | U |
| 75-34-3    | 1,1-Dichloroethane        | .50             |      | U |
| 594-20-7   | 2,2-Dichloropropane       | .50             |      | U |
| 156-59-2   | cis-1,2-Dichloroethene    | .50             |      | U |
| 74-97-1    | Bromochloromethane        | .50             |      | U |
| 67-66-3    | Chloroform                | .50             |      | U |
| 71-55-6    | 1,1,1-Trichloroethane     | .50             |      | U |
| 56-23-1    | Carbon tetrachloride      | .50             |      | U |
| 563-58-6   | 1,1-Dichloropropene       | .50             |      | U |
| 71-43-2    | Benzene                   | .50             |      | U |
| 107-06-2   | 1,2-Dichloroethane        | 11              |      |   |
| 79-01-6    | Trichloroethene           | .50             |      | U |
| 78-87-1    | 1,2-Dichloropropane       | .50             |      | U |
| 74-95-3    | Dibromomethane            | .50             |      | U |
| 75-27-4    | Bromodichloromethane      | .50             |      | U |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50             |      | U |
| 108-88-3   | Toluene                   | .50             |      | U |
| 10061-02-6 | trans-1,3-Dichloropropene | .50             |      | U |
| 79-00-1    | 1,1,2-Trichloroethane     | .50             |      | U |
| 127-18-4   | Tetrachloroethene         | .50             |      | U |
| 142-28-9   | 1,3-Dichloropropane       | .50             |      | U |
| 124-48-1   | Dibromochloromethane      | .50             |      | U |
| 106-93-4   | 1,2-Dibromomethane        | .50             |      | U |
| 108-90-7   | Chlorobenzene             | .50             |      | U |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50             |      | U |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

134

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

FB

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  | U    |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  | U    |
| 135-98-8  | sec-Butylbenzene            | .50                  | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .50                  | U    |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

135

FB

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#         

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526459V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8637.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:          (uL)

Soil Aliquot Volume:          (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

| CAS Number  | Compound Name             | RT    | Est. Conc. | Q |
|-------------|---------------------------|-------|------------|---|
| 1. 107-04-0 | Ethane, 1-bromo-2-chloro- | 13.88 | 4          | J |
| 2.          |                           |       |            |   |
| 3.          |                           |       |            |   |
| 4.          |                           |       |            |   |
| 5.          |                           |       |            |   |
| 6.          |                           |       |            |   |
| 7.          |                           |       |            |   |
| 8.          |                           |       |            |   |
| 9.          |                           |       |            |   |
| 10.         |                           |       |            |   |
| 11.         |                           |       |            |   |
| 12.         |                           |       |            |   |
| 13.         |                           |       |            |   |
| 14.         |                           |       |            |   |
| 15.         |                           |       |            |   |
| 16.         |                           |       |            |   |
| 17.         |                           |       |            |   |
| 18.         |                           |       |            |   |
| 19.         |                           |       |            |   |
| 20.         |                           |       |            |   |
| 21.         |                           |       |            |   |
| 22.         |                           |       |            |   |
| 23.         |                           |       |            |   |
| 24.         |                           |       |            |   |
| 25.         |                           |       |            |   |
| 26.         |                           |       |            |   |
| 27.         |                           |       |            |   |
| 28.         |                           |       |            |   |
| 29.         |                           |       |            |   |
| 30.         |                           |       |            |   |

## Quantitation Report

136

Data File : d:\hpchem\1\data\c8637.d  
Acq On : 22 Jun 95 8:23 pm  
Sample : 9526459  
Misc : 25 ML  
Quant Time: Jun 26 15:26 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.90 | 96   | 693766   | 5.00 | ug/L  | 0.06      |

| System Monitoring Compounds |       |     |        |      | %Recovery    |
|-----------------------------|-------|-----|--------|------|--------------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95  | 365670 | 5.28 | ug/L 105.67% |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152 | 175352 | 5.55 | ug/L 110.94% |

| Target Compounds       |       |    |        |       | Qvalue  |
|------------------------|-------|----|--------|-------|---------|
| 3) Chloromethane       | 3.71  | 50 | 36737  | 1.13  | ug/L 99 |
| 9) Methylene chloride  | 7.48  | 84 | 62608  | 1.65  | ug/L 92 |
| 22) 1,2-Dichloroethane | 11.43 | 62 | 316016 | 10.66 | ug/L 99 |

(#) = qualifier out of range (m) = manual integration

c8637.d VOA524.M

Mon Jun 26 16:26:14 1995

VOA

Page 1

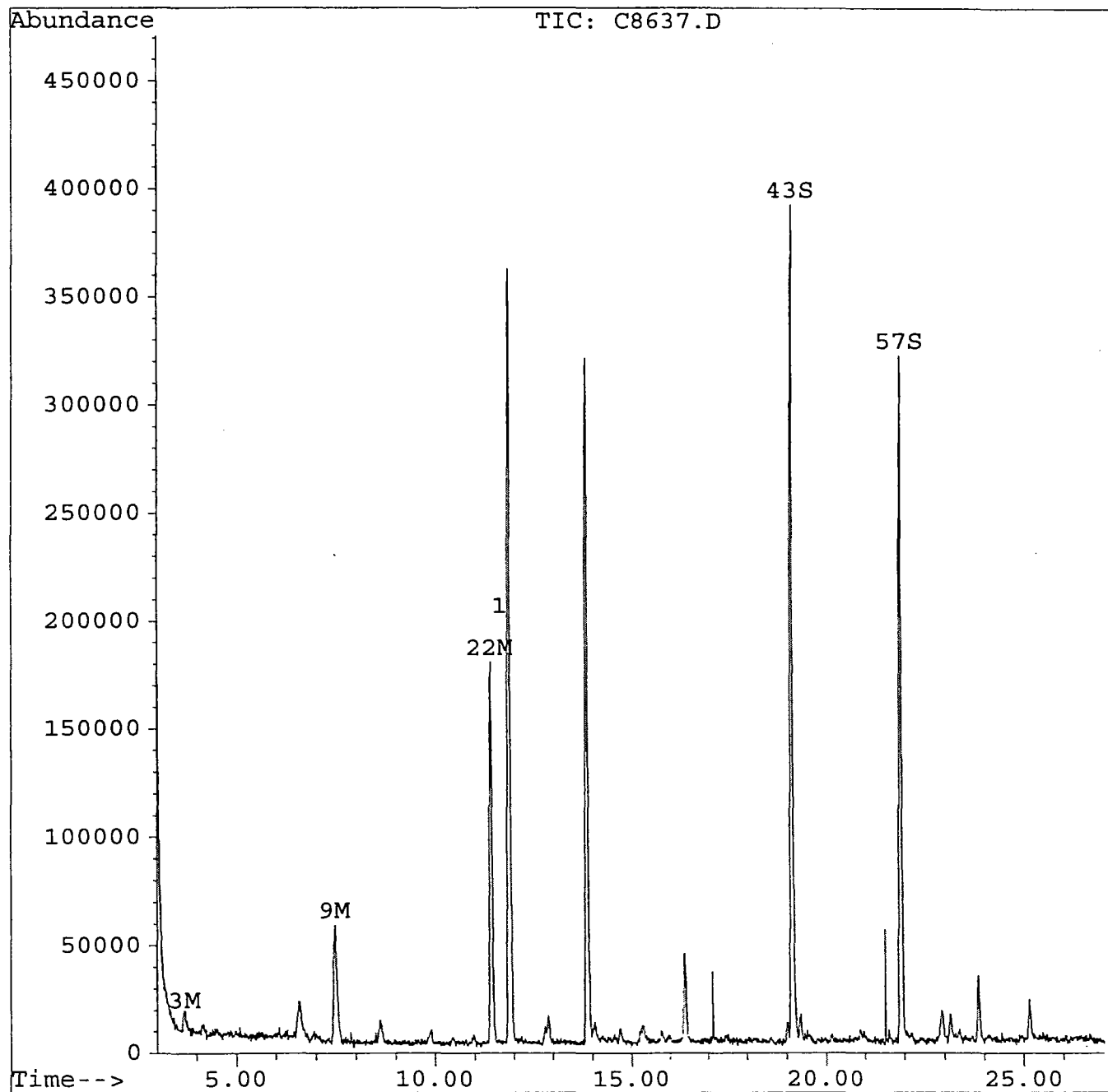
# Quantitation Report

137

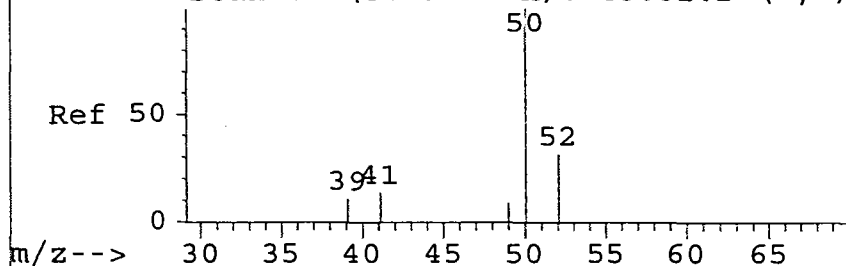
Data File : d:\hpchem\1\data\c8637.d  
Acq On : 22 Jun 95 8:23 pm  
Sample : 9526459  
Misc : 25 ML  
Quant Time: Jun 26 15:26 1995

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



AbundanceScan 54 (3.591 min): C5082.D (-,\*)



#3

Chloromethane

Concen: 1.13 ug/L

RT: 3.71 min Scan# 66

Delta R.T. 0.07 min

Lab File: c8637.d

Acq: 22 Jun 95 8:23 pm

Tgt Ion:50 Resp: 36737

Ion Ratio Lower Upper

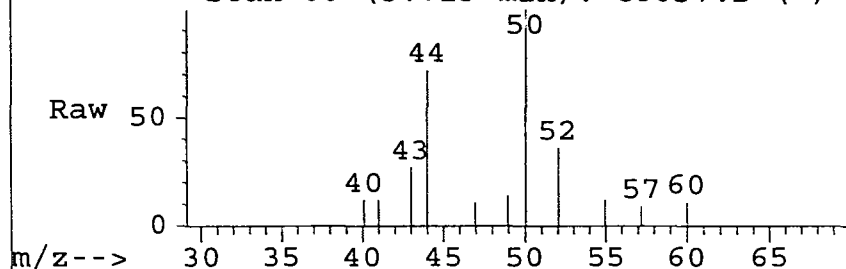
50 100

52 36.0 15.4 55.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Abundance Scan 66 (3.713 min): C8637.D (\*)



Abundance Ion 50.00 (49.

Ion 52.00 (51.

3.71

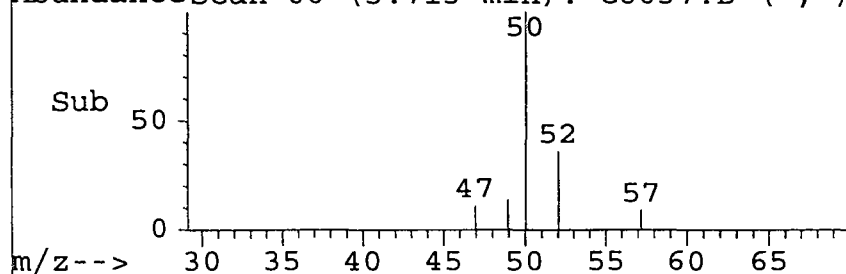
6000

4000

2000

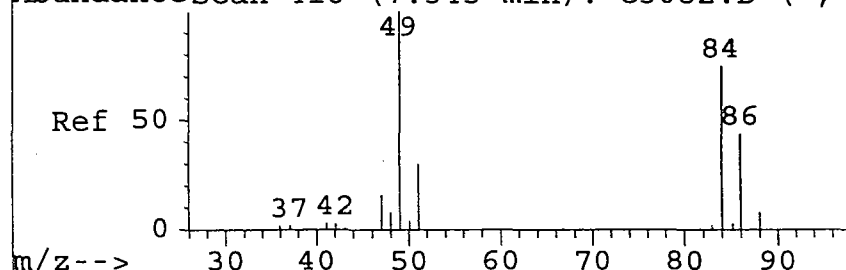
0

AbundanceScan 66 (3.713 min): C8637.D (-,\*)



Time--&gt;3.42 3.96

AbundanceScan 418 (7.345 min): C5082.D (-,\*)



#9

Methylene chloride

Concen: 1.65 ug/L

RT: 7.48 min Scan# 431

Delta R.T. 0.07 min

Lab File: c8637.d

Acq: 22 Jun 95 8:23 pm

Tgt Ion:84 Resp: 62608

Ion Ratio Lower Upper

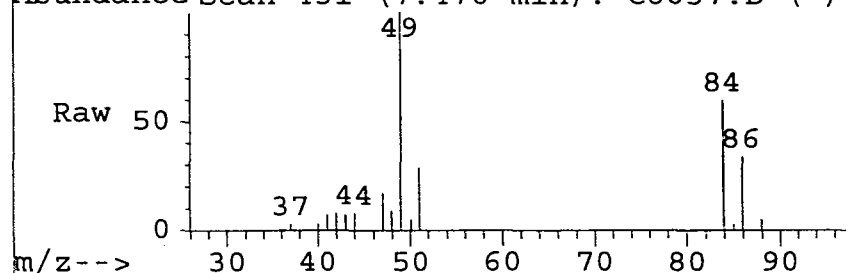
84 100

86 56.9 43.1 83.1

49 166.6 136.3 176.3

0 0.0 0.0 0.0

Abundance Scan 431 (7.476 min): C8637.D (\*)



Abundance Ion 84.00 (83.

Ion 86.00 (85.

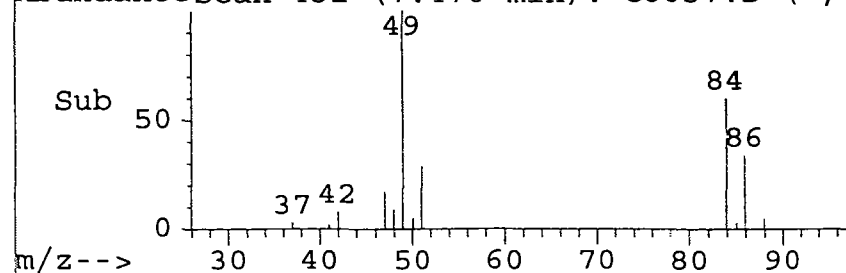
Ion 49.00 (48.

20000

10000

0

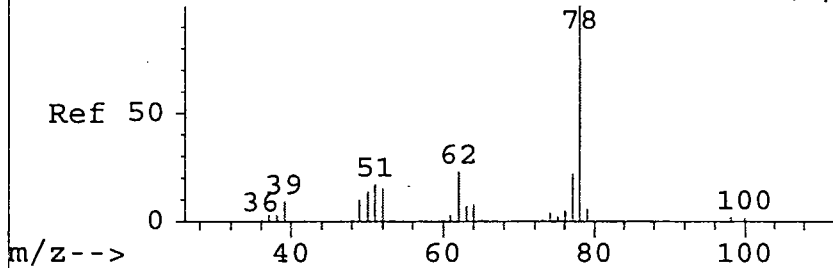
AbundanceScan 431 (7.476 min): C8637.D (-,\*)



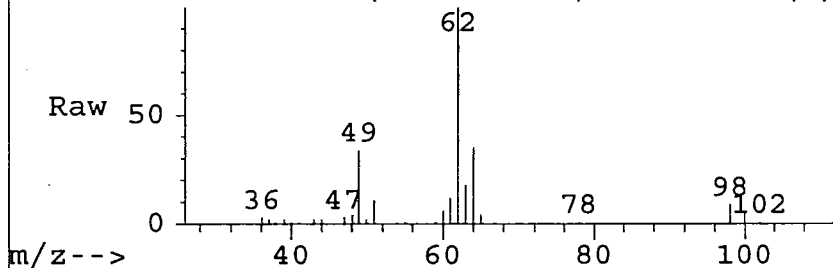
Time--&gt;7.20 7.73



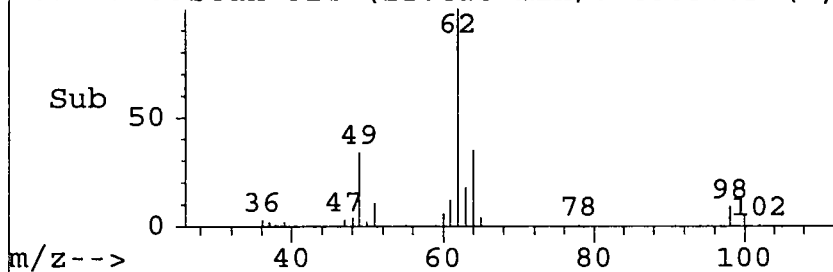
AbundanceScan 799 (11.275 min): C5082.D (-,



AbundanceScan 814 (11.425 min): C8637.D (\*)



AbundanceScan 814 (11.425 min): C8637.D (-,



#22

1,2-Dichloroethane

139

Concen: 10.66 ug/L

RT: 11.43 min Scan# 814

Delta R.T. 0.06 min

Lab File: c8637.d

Acq: 22 Jun 95 8:23 pm

Tgt Ion:62 Resp: 316016

Ion Ratio Lower Upper

62 100

98 8.8 0.0 29.2

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 62.00 (61.

80000 Ion 98.00 (97.

11.43

60000

40000

20000

0

Time-->11.11 11.67

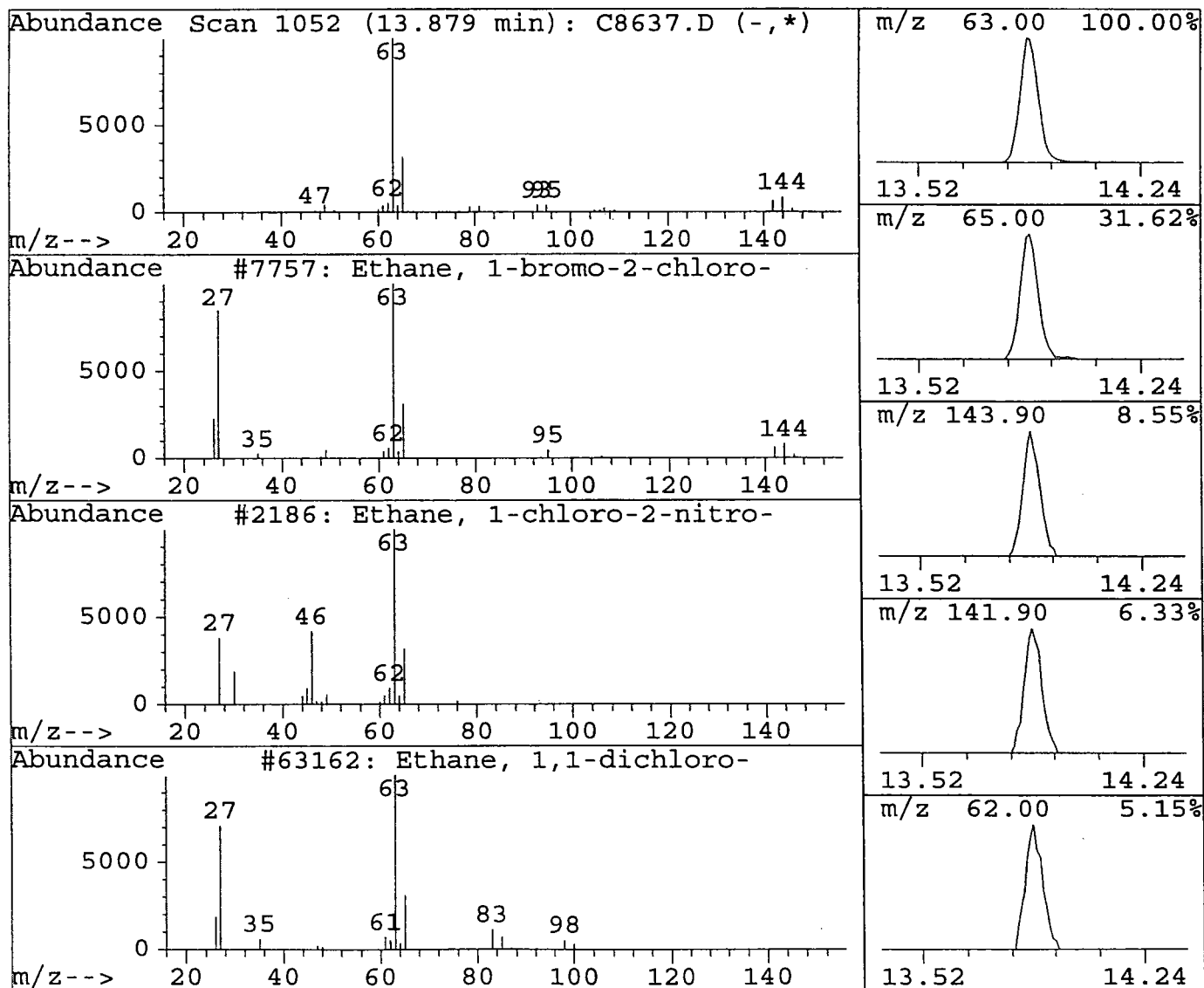
Data File : d:\hpchem\1\data\c8637.d  
Acq On : 22 Jun 95 8:23 pm  
Sample : 9526459  
Misc : 25 ML

Vial: 6  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area    | Relative to ISTD | R.T.  |
|-------|-----------|---------|------------------|-------|
| 13.88 | 3.98 ug/L | 1294398 | Fluorobenzene    | 11.90 |

| Hit# of 20 | Tentative ID                       | Ref#  | CAS#        | Qual |
|------------|------------------------------------|-------|-------------|------|
| 1          | Ethane, 1-bromo-2-chloro-          | 7757  | 000107-04-0 | 91   |
| 2          | Ethane, 1-chloro-2-nitro-          | 2186  | 000625-47-8 | 64   |
| 3          | Ethane, 1,1-dichloro-              | 63162 | 000075-34-3 | 9    |
| 4          | Carbonochloridic acid, ethyl ester | 63749 | 000541-41-3 | 9    |
| 5          | 2-Chloropropionyl chloride         | 4369  | 007623-09-8 | 43   |



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

141

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW 1-2931777

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9526460

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8689.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |      |
|------------|---------------------------|----------------------|------|
|            |                           | (ug/L or ug/Kg)      | ug/L |
|            |                           |                      | Q    |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U    |
| 74-87-3    | Chloromethane             | .50                  | U    |
| 75-01-4    | Vinyl chloride            | .50                  | U    |
| 74-83-9    | Bromomethane              | .50                  | U    |
| 75-00-3    | Chloroethane              | .50                  | U    |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U    |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U    |
| 75-09-2    | Methylene chloride        | .80                  | B    |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U    |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U    |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U    |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U    |
| 74-97-1    | Bromochloromethane        | .50                  | U    |
| 67-66-3    | Chloroform                | .50                  | U    |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U    |
| 56-23-1    | Carbon tetrachloride      | .50                  | U    |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U    |
| 71-43-2    | Benzene                   | .50                  | U    |
| 107-06-2   | 1,2-Dichloroethane        | .50                  | U    |
| 79-01-6    | Trichloroethene           | .50                  | U    |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U    |
| 74-95-3    | Dibromomethane            | .50                  | U    |
| 75-27-4    | Bromodichloromethane      | .50                  | U    |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U    |
| 108-88-3   | Toluene                   | .50                  | U    |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U    |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U    |
| 127-18-4   | Tetrachloroethene         | .50                  | U    |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U    |
| 124-48-1   | Dibromochloromethane      | .50                  | U    |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U    |
| 108-90-7   | Chlorobenzene             | .50                  | U    |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U    |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

142

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

MW-2931777

Project No.: FT. MONMOUTH NJ Bldg#: 2000

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9526460

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8689.D

Level: (low/med) LOW

Date Received: 6/15/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      | Q |
|-----------|-----------------------------|----------------------|------|---|
|           |                             | (ug/L or ug/Kg)      | ug/L |   |
| 100-41-4  | Ethylbenzene                | .50                  |      | U |
| 1330-29-7 | Xylene (total)              | .50                  |      | U |
| 100-42-1  | Styrene                     | .50                  |      | U |
| 75-25-2   | Bromoform                   | .50                  |      | U |
| 98-82-8   | Isopropylbenzene            | .50                  |      | U |
| 108-86-1  | Bromobenzene                | .50                  |      | U |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  |      | U |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  |      | U |
| 103-65-1  | n-Propylbenzene             | .50                  |      | U |
| 95-49-8   | 2-Chlorotoluene             | .50                  |      | U |
| 106-43-4  | 4-Chlorotoluene             | .50                  |      | U |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .60                  |      |   |
| 98-06-6   | tert-Butylbenzene           | .50                  |      | U |
| 95-63-6   | 1,2,4-Trimethylbenzene      | 1.1                  |      |   |
| 135-98-8  | sec-Butylbenzene            | .50                  |      |   |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  |      | U |
| 99-87-6   | 4-Isopropyltoluene          | .50                  |      |   |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  |      | U |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  |      | U |
| 104-51-8  | n-Butylbenzene              | .60                  |      |   |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  |      | U |
| 87-68-3   | Hexachlorobutadiene         | .50                  |      | U |
| 91-20-3   | Naphthalene                 | .50                  |      | U |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  |      | U |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

MW1-243177 143

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY  
 Project No. FT. MONMOUTH NJ Bldg#: 2000 NJDEPMW#: 1  
 Matrix: (soil/water) WATER Lab Sample ID: 9526460V  
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8689.D  
 Level: (low/med) LOW Date Received: 6/15/95  
 % Moisture: not dec. NA Date Analyzed: 6/27/95  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 15 Concentration Units:  
 (ug/L or ug/Kg) ug/L

| CAS Number    | Compound Name                | RT    | Est. Conc. | Q |
|---------------|------------------------------|-------|------------|---|
| 1. 25340-17-4 | Benzene, diethyl-            | 21.75 | 2          | J |
| 2. 1074-43-7  | Benzene, 1-methyl-3-propyl-  | 21.78 | 2          | J |
| 3. 135-98-8   | Benzene, (1-methylpropyl)-   | 22.24 | 2          | J |
| 4. 1758-88-9  | Benzene, 2-ethyl-1,4-dimethy | 22.59 | 3          | J |
| 5.            | Unknown                      | 22.81 | 2          | J |
| 6.            | Unknown                      | 22.86 | 1          | J |
| 7. 527-53-7   | Benzene, 1,2,3,5-tetramethyl | 23.32 | 2          | J |
| 8. 488-23-3   | Benzene, 1,2,3,4-tetramethyl | 23.42 | 2          | J |
| 9.            | Unknown Hydrocarbon          | 24.21 | 2          | J |
| 10.           | Unknown                      | 24.22 | 1          | J |
| 11.           | Unknown                      | 25.09 | 2          | J |
| 12.           | Unknown                      | 25.58 | 2          | J |
| 13.           | Unknown                      | 25.76 | 2          | J |
| 14.           | Unknown                      | 26.58 | 2          | J |
| 15.           | Unknown                      | 26.59 | 1          | J |
| 16.           |                              |       |            |   |
| 17.           |                              |       |            |   |
| 18.           |                              |       |            |   |
| 19.           |                              |       |            |   |
| 20.           |                              |       |            |   |
| 21.           |                              |       |            |   |
| 22.           |                              |       |            |   |
| 23.           |                              |       |            |   |
| 24.           |                              |       |            |   |
| 25.           |                              |       |            |   |
| 26.           |                              |       |            |   |
| 27.           |                              |       |            |   |
| 28.           |                              |       |            |   |
| 29.           |                              |       |            |   |
| 30.           |                              |       |            |   |

Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML  
Quant Time: Jun 28 10:16 1995

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.91 | 96   | 384686   | 5.00 | ug/L  | 0.00      |

| System Monitoring Compounds |       |     |        |           | %Recovery |
|-----------------------------|-------|-----|--------|-----------|-----------|
| 43) 4-Bromofluorobenzene    | 19.14 | 95  | 196218 | 5.46 ug/L | 109.22%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152 | 105199 | 4.98 ug/L | 99.51%    |

| Target Compounds           |       |     |       |             | Qvalue |
|----------------------------|-------|-----|-------|-------------|--------|
| 9) Methylene chloride      | 7.50  | 84  | 16854 | 0.80 ug/L # | 87     |
| 50) 1,3,5-Trimethylbenzene | 19.93 | 105 | 54466 | 0.62 ug/L   | 93     |
| 52) 1,2,4-Trimethylbenzene | 20.61 | 105 | 95749 | 1.14 ug/L   | 97     |
| 53) sec-Butylbenzene       | 20.92 | 105 | 67717 | 0.51 ug/L   | 97     |
| 55) 4-Isopropyltoluene     | 21.10 | 119 | 54892 | 0.52 ug/L   | 95     |
| 59) n-Butylbenzene         | 21.92 | 91  | 65822 | 0.61 ug/L # | 1      |

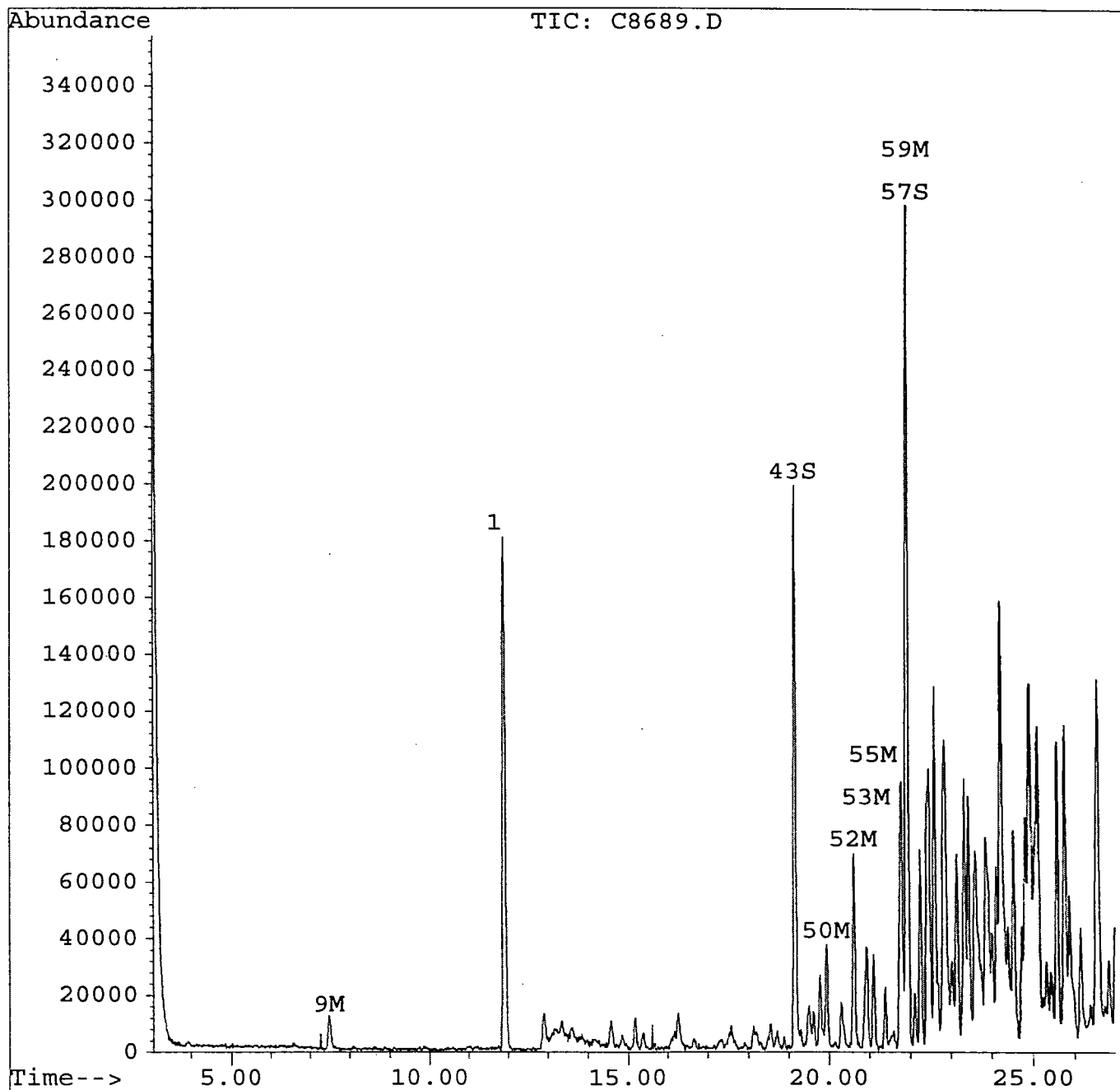
## Quantitation Report

145

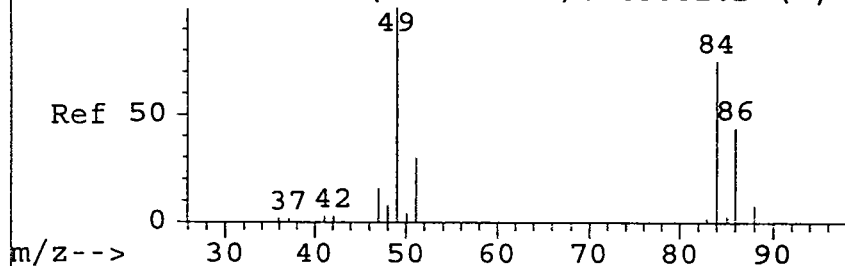
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML  
Quant Time: Jun 28 10:16 1995

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration



Abundance Scan 418 (7.345 min): C5082.D (-,\*



#9

Methylene chloride

Concen: 0.80 ug/L

RT: 7.50 min Scan# 433

Delta R.T. 0.03 min

Lab File: c8689.d

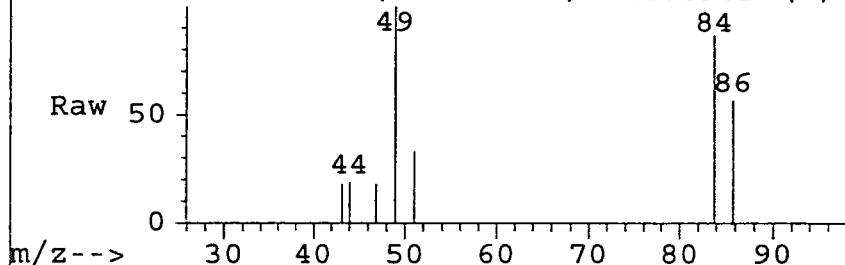
Acq: 27 Jun 95 9:21 pm

Tgt Ion:84 Resp: 16854

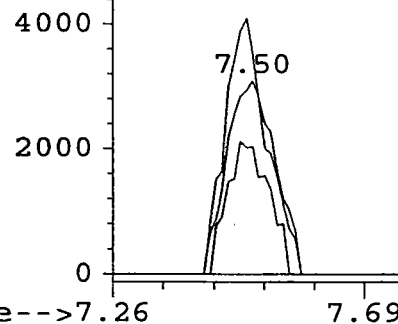
Ion Ratio Lower Upper

|    |       |       |        |
|----|-------|-------|--------|
| 84 | 100   |       |        |
| 86 | 66.0  | 45.6  | 85.6   |
| 49 | 115.1 | 117.2 | 157.2# |
| 0  | 0.0   | 0.0   | 0.0    |

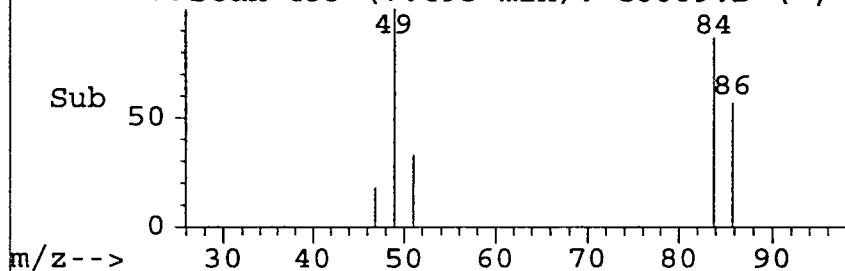
Abundance Scan 433 (7.495 min): C8689.D (\*)



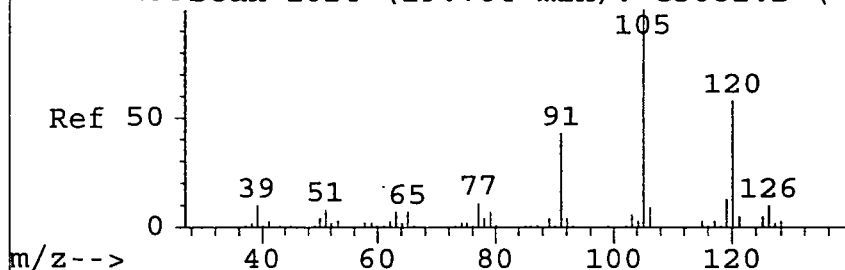
Abundance Ion 84.00 (83.  
Ion 86.00 (85.  
Ion 49.00 (48.



Abundance Scan 433 (7.495 min): C8689.D (-,\*



Abundance Scan 1624 (19.784 min): C5082.D (-



#50

1,3,5-Trimethylbenzene

Concen: 0.62 ug/L

RT: 19.93 min Scan# 1640

Delta R.T. 0.00 min

Lab File: c8689.d

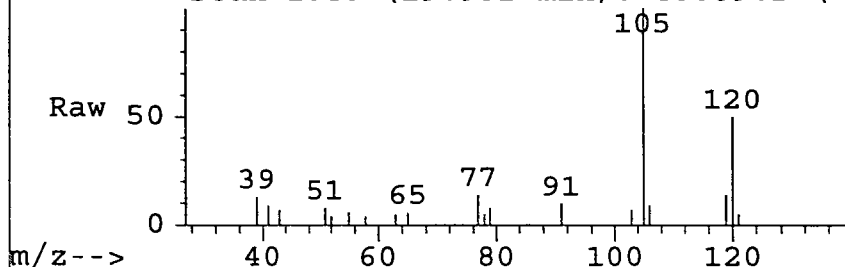
Acq: 27 Jun 95 9:21 pm

Tgt Ion:105 Resp: 54466

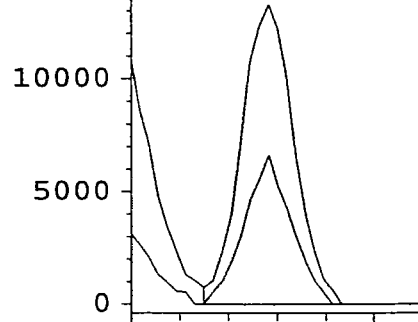
Ion Ratio Lower Upper

|     |      |      |      |
|-----|------|------|------|
| 105 | 100  |      |      |
| 120 | 50.0 | 25.6 | 65.6 |
| 0   | 0.0  | 0.0  | 0.0  |
| 0   | 0.0  | 0.0  | 0.0  |

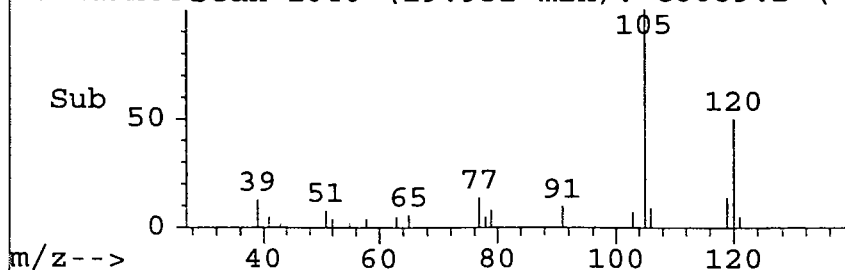
Abundance Scan 1640 (19.932 min): C8689.D (\*)



Abundance Ion 105.00 (104  
Ion 120.00 (119  
19.93



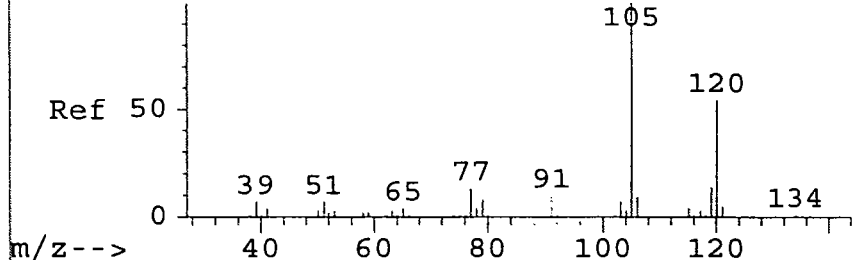
Abundance Scan 1640 (19.932 min): C8689.D (-





147

AbundanceScan 1690 (20.465 min): C5082.D (-



#52

1,2,4-Trimethylbenzene

Concen: 1.14 ug/L

RT: 20.61 min Scan# 1706

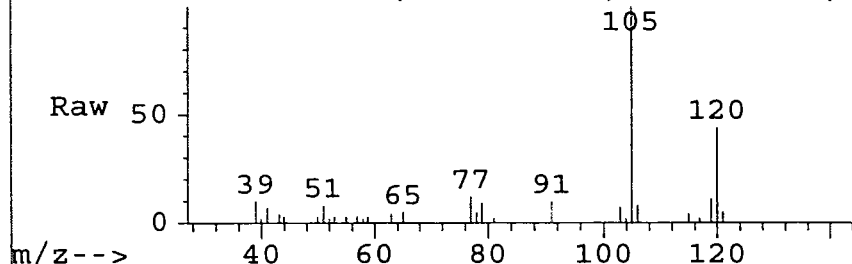
Delta R.T. 0.00 min

Lab File: c8689.d

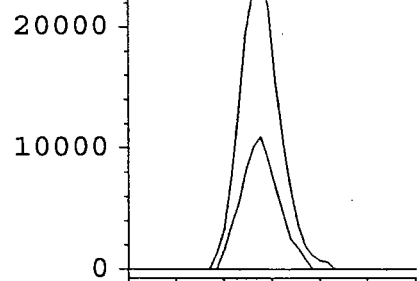
Acq: 27 Jun 95 9:21 pm

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 95749 |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 44.3  | 22.7  | 62.7  |
| 0        | 0.0   | 0.0   | 0.0   |
| 0        | 0.0   | 0.0   | 0.0   |

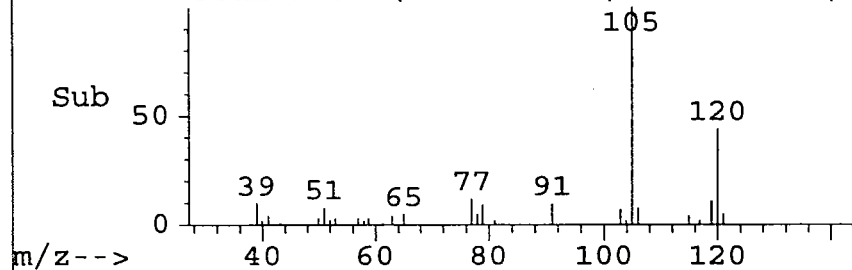
AbundanceScan 1706 (20.612 min): C8689.D (\*)



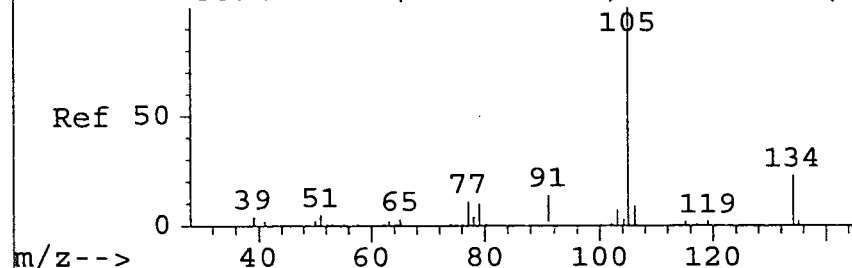
AbundanceIon 105.00 (104  
Ion 120.00 (119  
20.61



AbundanceScan 1706 (20.612 min): C8689.D (-



AbundanceScan 1721 (20.784 min): C5082.D (-



#53

sec-Butylbenzene

Concen: 0.51 ug/L

RT: 20.92 min Scan# 1736

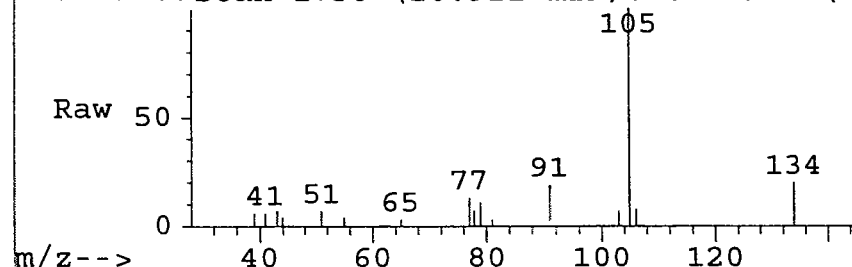
Delta R.T. -0.01 min

Lab File: c8689.d

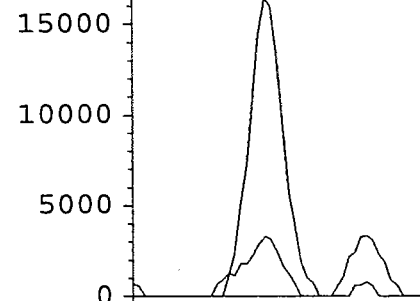
Acq: 27 Jun 95 9:21 pm

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 67717 |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 134      | 20.3  | 0.0   | 38.9  |
| 0        | 0.0   | 0.0   | 0.0   |
| 0        | 0.0   | 0.0   | 0.0   |

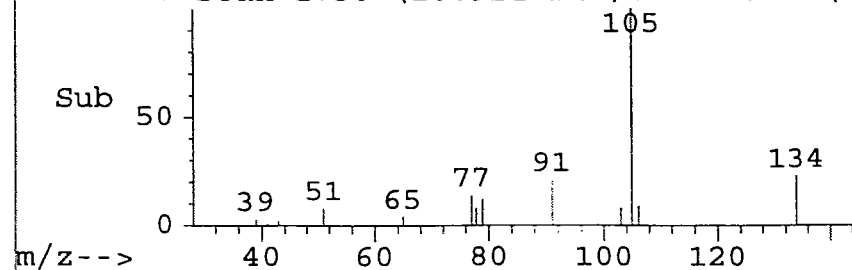
AbundanceScan 1736 (20.921 min): C8689.D (\*)

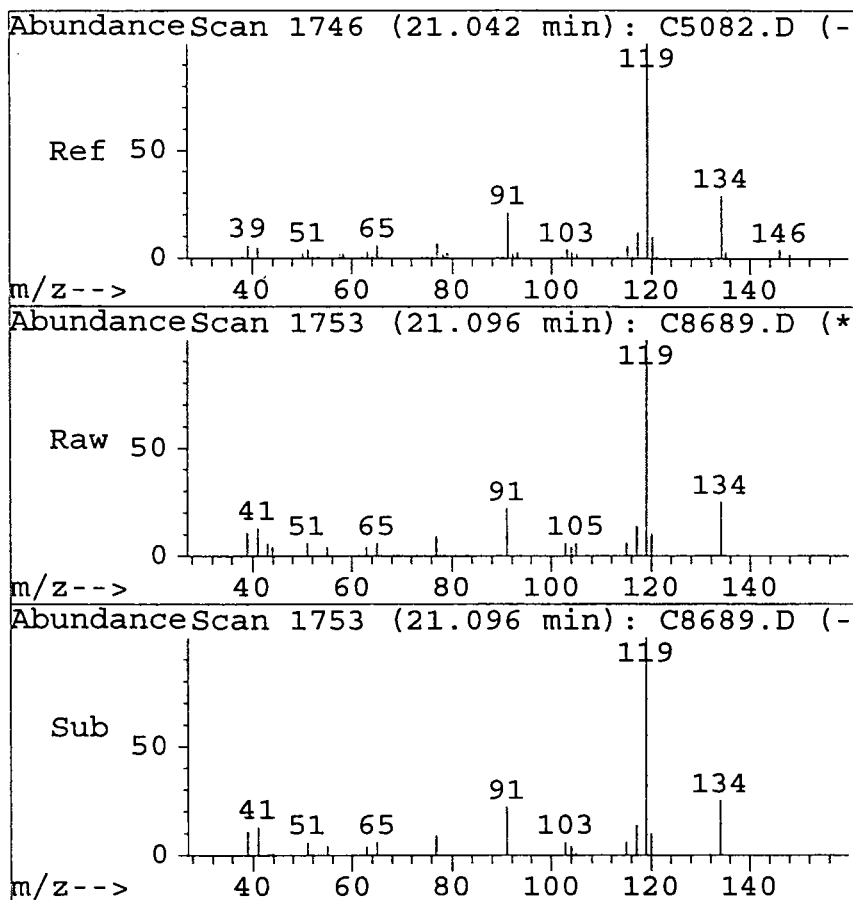


AbundanceIon 105.00 (104  
Ion 134.00 (133  
20.92



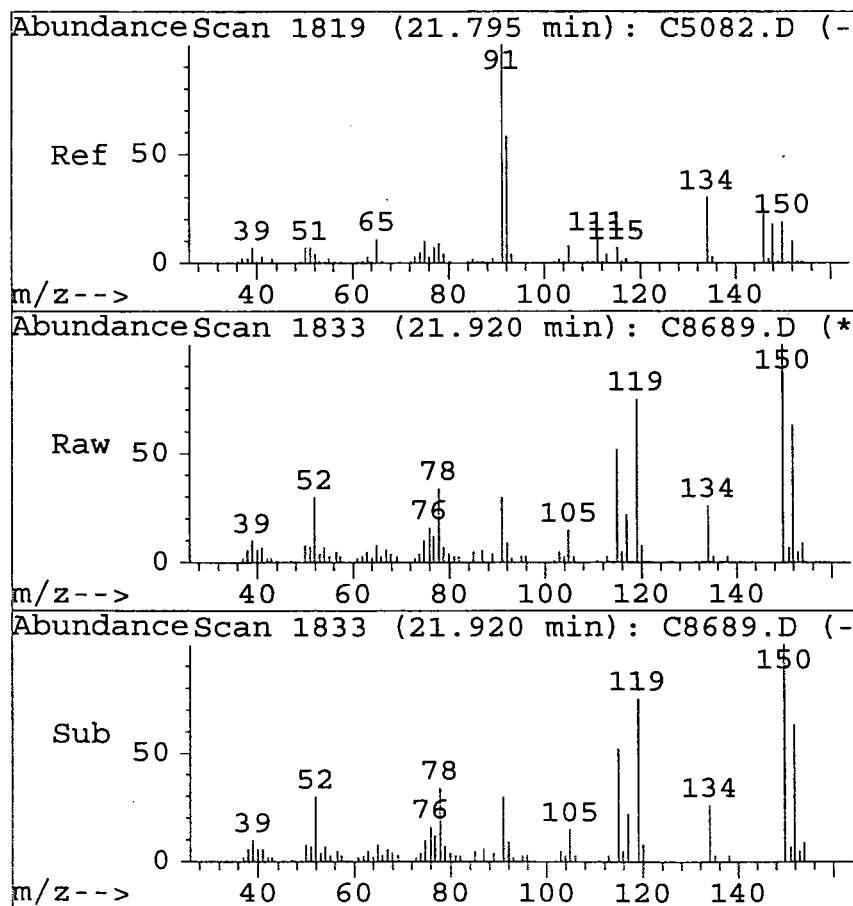
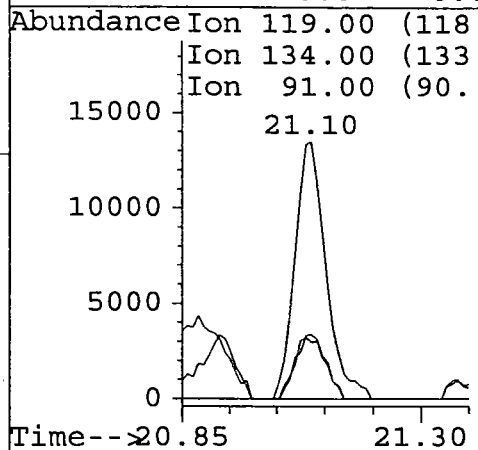
AbundanceScan 1736 (20.921 min): C8689.D (-





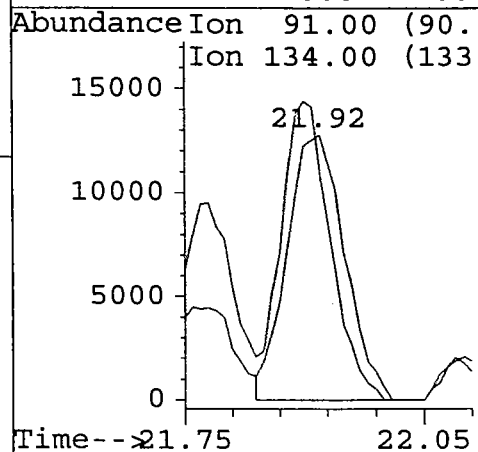
#55  
4-Isopropyltoluene  
Concen: 0.52 ug/L  
RT: 21.10 min Scan# 1753  
Delta R.T. -0.09 min  
Lab File: c8689.d  
Acq: 27 Jun 95 9:21 pm

|             |       |          |
|-------------|-------|----------|
| Tgt Ion:119 | Resp: | 54892    |
| Ion Ratio   | Lower | Upper    |
| 119         | 100   |          |
| 134         | 24.9  | 4.3 44.3 |
| 91          | 22.1  | 6.9 46.9 |
| 0           | 0.0   | 0.0 0.0  |



#59  
n-Butylbenzene  
Concen: 0.61 ug/L  
RT: 21.92 min Scan# 1833  
Delta R.T. -0.02 min  
Lab File: c8689.d  
Acq: 27 Jun 95 9:21 pm

|            |       |           |
|------------|-------|-----------|
| Tgt Ion:91 | Resp: | 65822     |
| Ion Ratio  | Lower | Upper     |
| 91         | 100   |           |
| 134        | 86.3  | 4.1 44.1# |
| 0          | 0.0   | 0.0 0.0   |
| 0          | 0.0   | 0.0 0.0   |



## Library Search Compound Report

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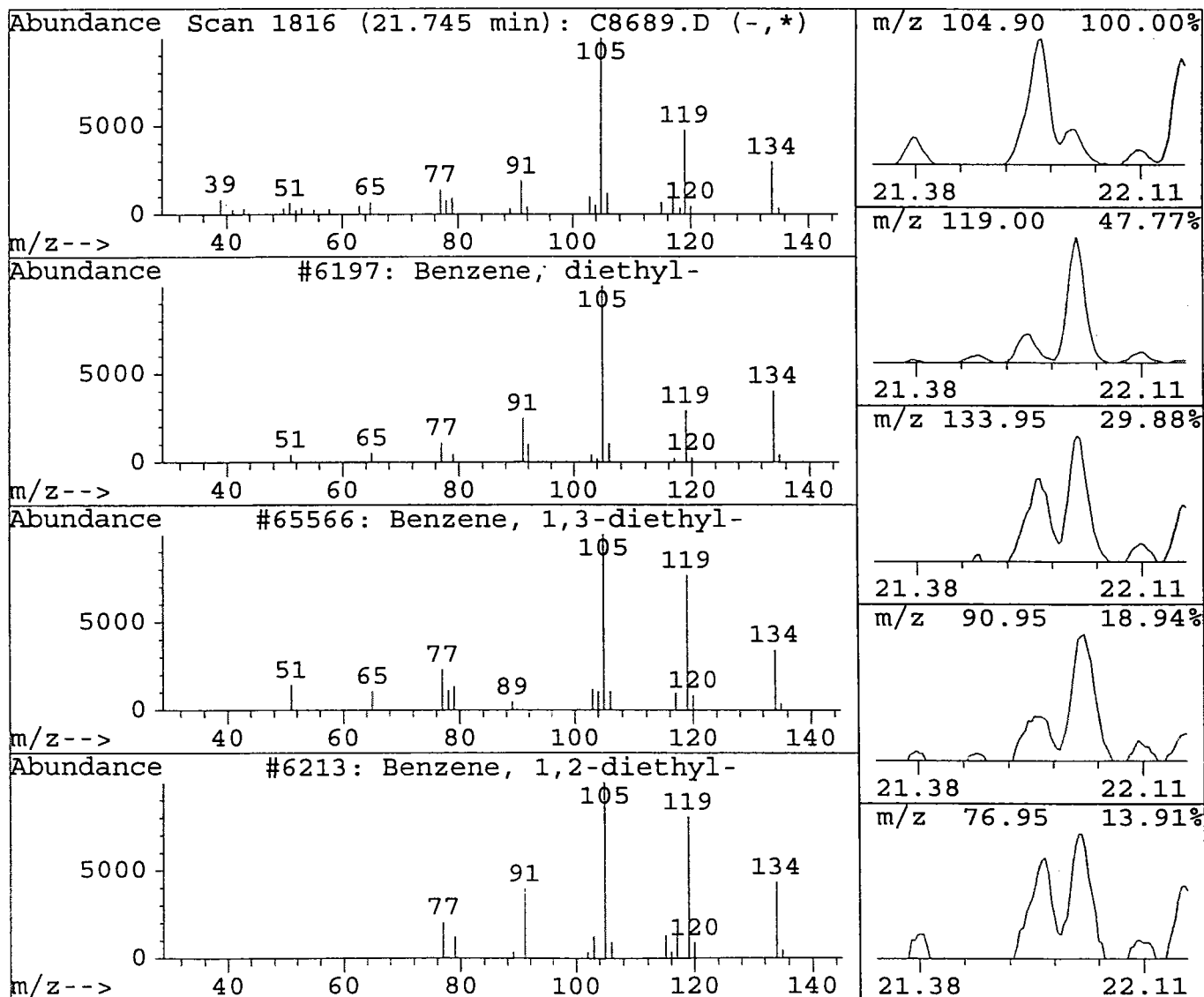
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 21.75 | 1.61 ug/L | 266408 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                | Ref#  | CAS#        | Qual |
|------------|-----------------------------|-------|-------------|------|
| 1          | Benzene, diethyl-           | 6197  | 025340-17-4 | 52   |
| 2          | Benzene, 1,3-diethyl-       | 65566 | 000141-93-5 | 59   |
| 3          | Benzene, 1,2-diethyl-       | 6213  | 000135-01-3 | 81   |
| 4          | Benzene, 1-methyl-3-propyl- | 6195  | 001074-43-7 | 22   |
| 5          | Benzene, (1-methylpropyl)-  | 65544 | 000135-98-8 | 30   |



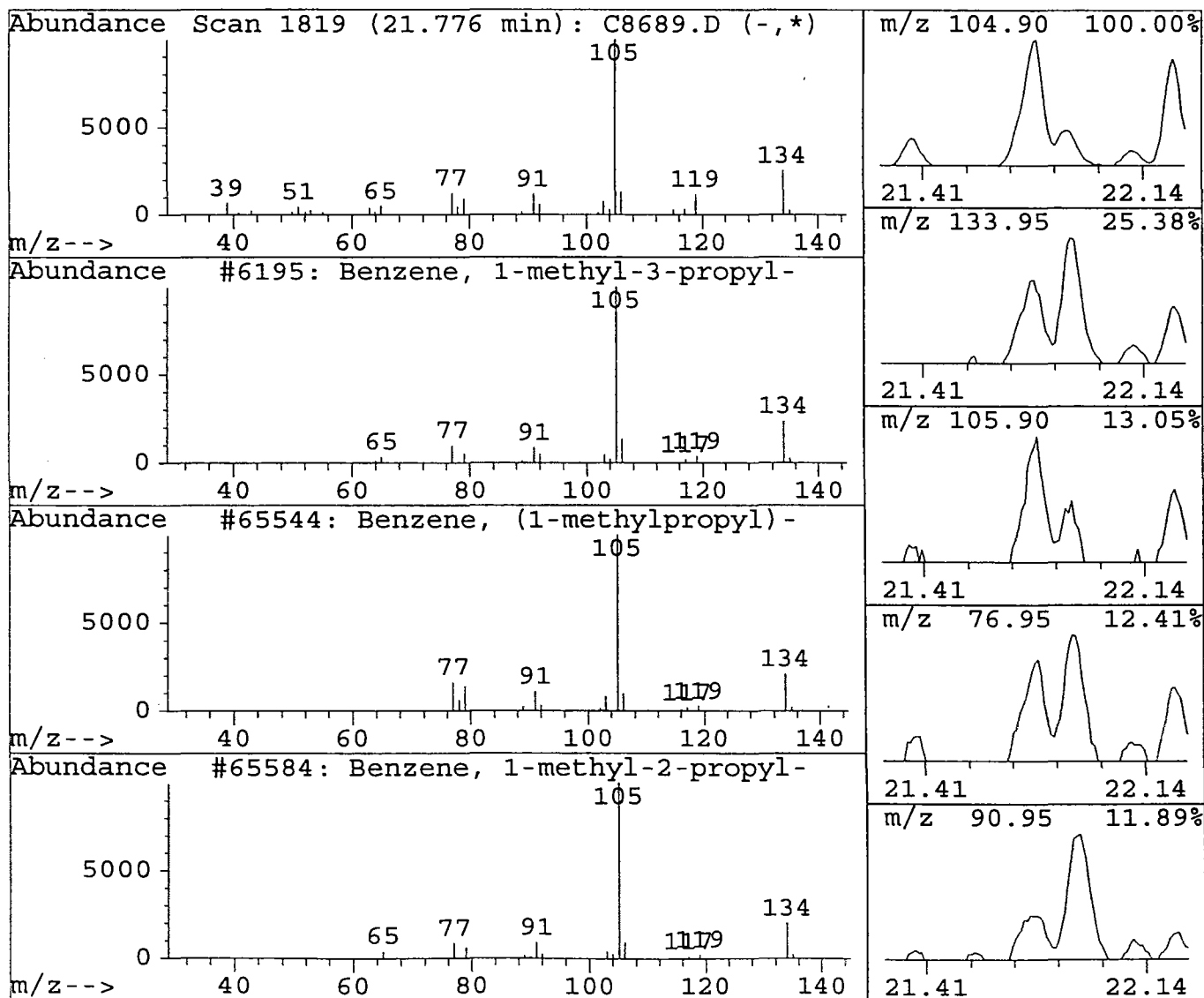
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 21.78 | 1.52 ug/L | 251157 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 1-methyl-3-propyl-         | 6195  | 001074-43-7 | 94   |
| 2          | Benzene, (1-methylpropyl)-          | 65544 | 000135-98-8 | 64   |
| 3          | Benzene, 1-methyl-2-propyl-         | 65584 | 001074-17-5 | 90   |
| 4          | Benzene, 1-methyl-4-propyl-         | 6216  | 001074-55-1 | 90   |
| 5          | Benzeneacetaldehyde, .alpha.-methyl | 65510 | 000093-53-8 | 32   |



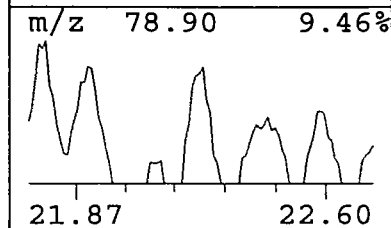
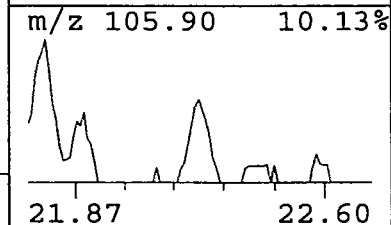
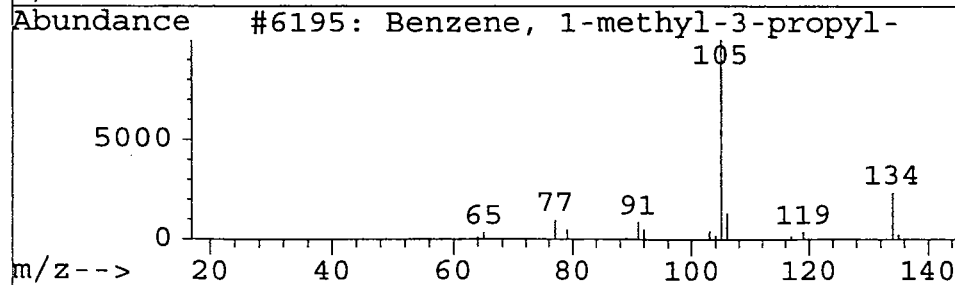
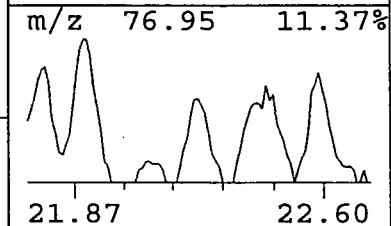
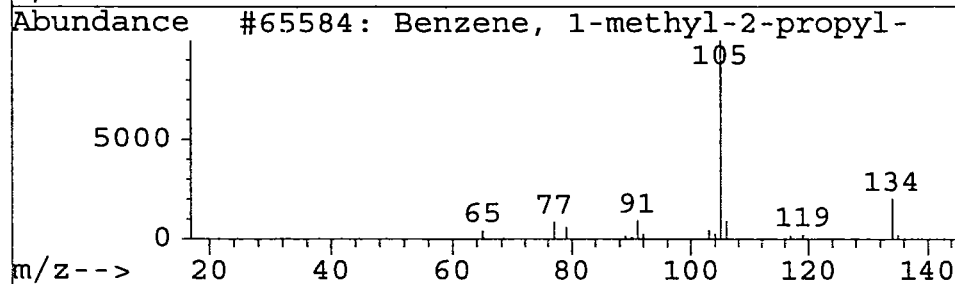
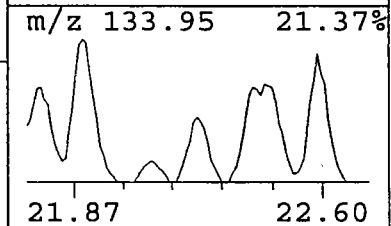
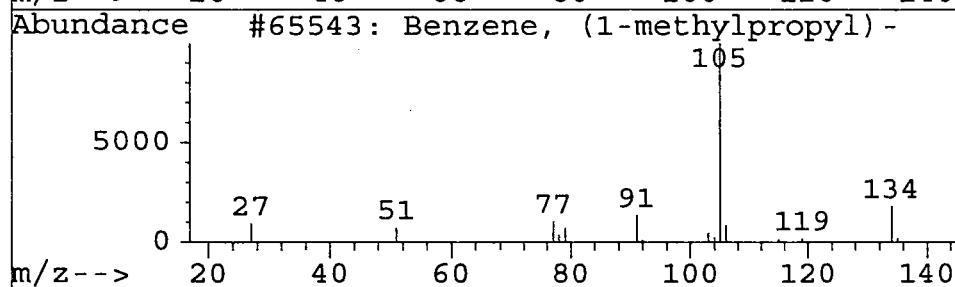
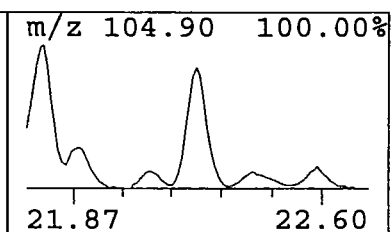
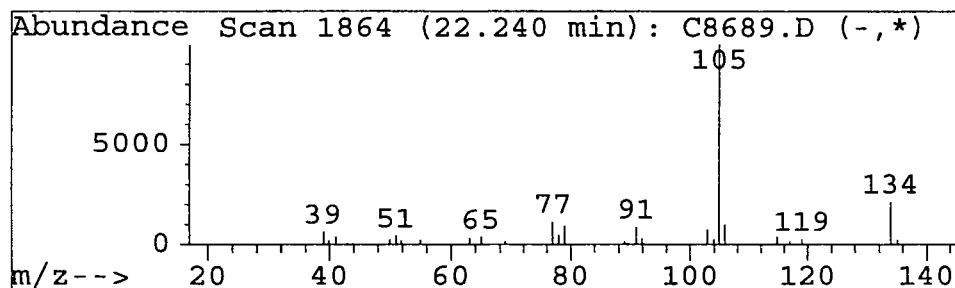
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.24 | 1.58 ug/L | 261771 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, (1-methylpropyl)-          | 65543 | 000135-98-8 | 90   |
| 2          | Benzene, 1-methyl-2-propyl-         | 65584 | 001074-17-5 | 94   |
| 3          | Benzene, 1-methyl-3-propyl-         | 6195  | 001074-43-7 | 72   |
| 4          | Benzene, 1-methyl-4-propyl-         | 6216  | 001074-55-1 | 91   |
| 5          | Benzeneacetaldehyde, .alpha.-methyl | 65510 | 000093-53-8 | 43   |



## Library Search Compound Report

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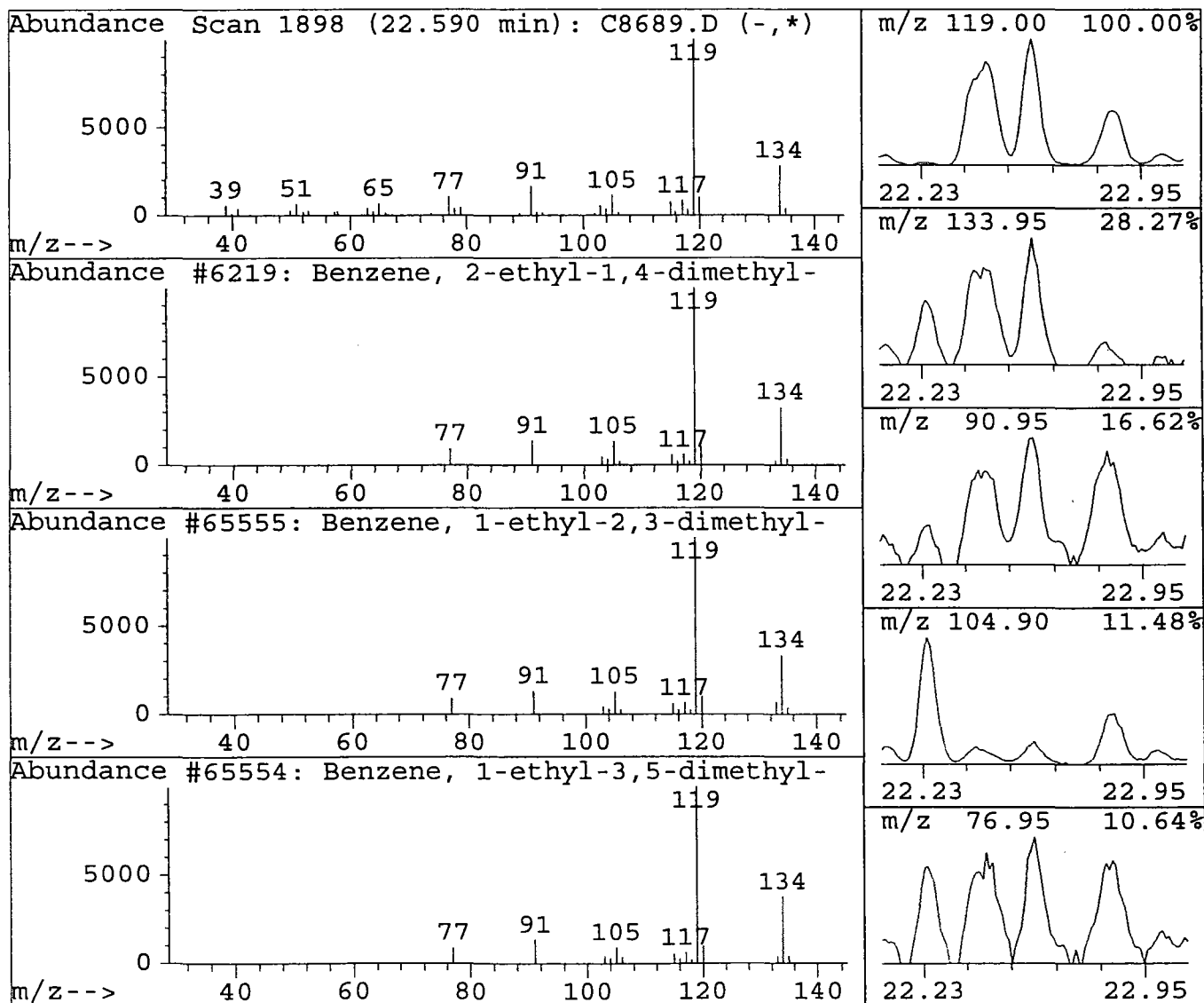
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.59 | 2.56 ug/L | 423627 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 2-ethyl-1,4-dimethyl-      | 6219  | 001758-88-9 | 94   |
| 2          | Benzene, 1-ethyl-2,3-dimethyl-      | 65555 | 000933-98-2 | 91   |
| 3          | Benzene, 1-ethyl-3,5-dimethyl-      | 65554 | 000934-74-7 | 91   |
| 4          | Benzene, 4-ethyl-1,2-dimethyl-      | 6218  | 000934-80-5 | 93   |
| 5          | Benzene, 1-methyl-2-(1-methylethyl) | 65581 | 000527-84-4 | 95   |



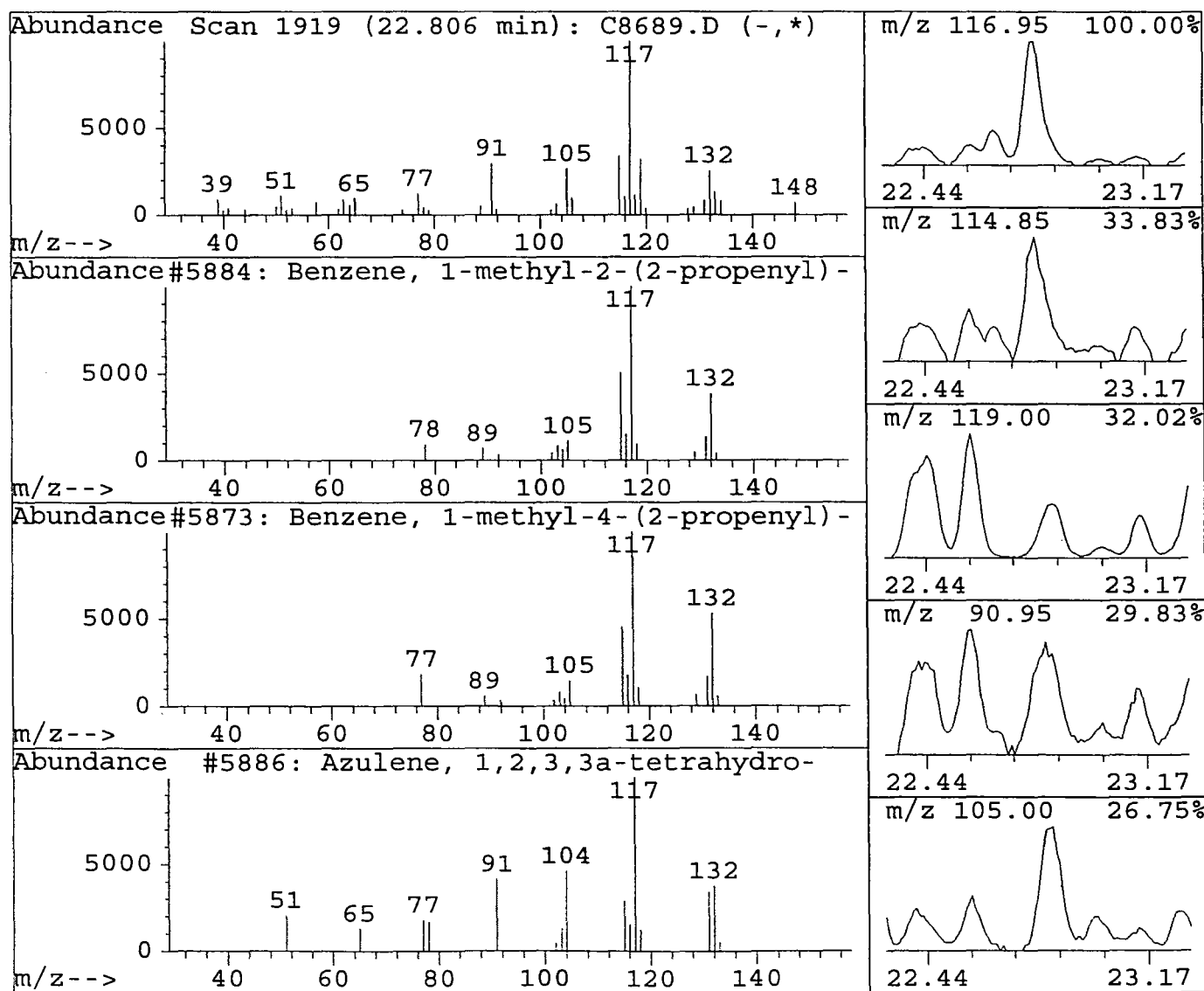
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 22.81 | 1.61 ug/L | 267147 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                      | Ref# | CAS#        | Qual |
|------------|-----------------------------------|------|-------------|------|
| 1          | Benzene, 1-methyl-2-(2-propenyl)- | 5884 | 001587-04-8 | 43   |
| 2          | Benzene, 1-methyl-4-(2-propenyl)- | 5873 | 003333-13-9 | 43   |
| 3          | Azulene, 1,2,3,3a-tetrahydro-     | 5886 | 033877-87-1 | 38   |
| 4          | Indan, 1-methyl-                  | 5882 | 000767-58-8 | 58   |
| 5          | 2,3-Dihydro-1-methylindene        | 5901 | 027133-93-3 | 58   |

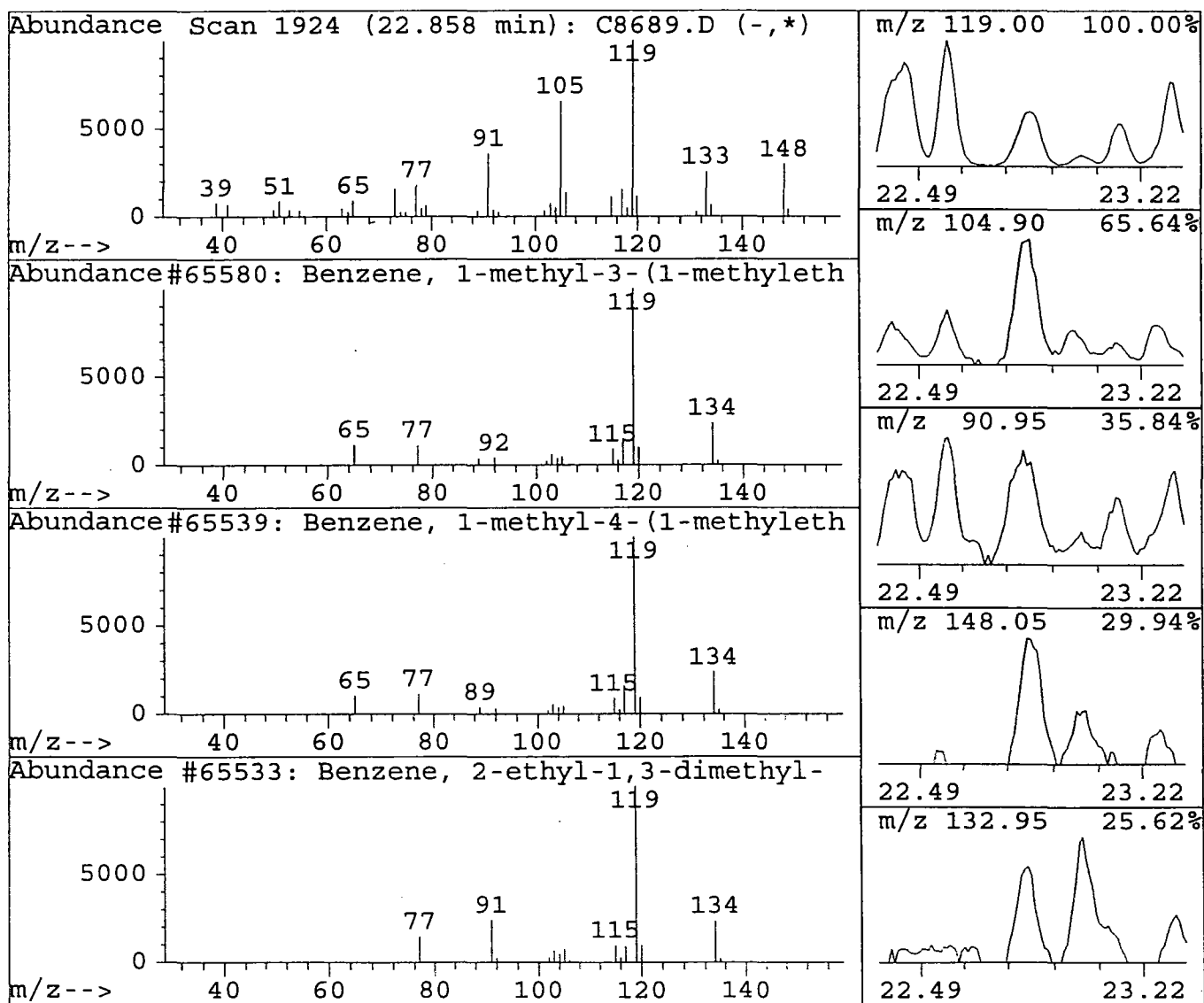


Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 22.86      | 1.44 ug/L                           | 238977 | Fluorobenzene    | 11.91       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Benzene, 1-methyl-3-(1-methylethyl) |        | 65580            | 000535-77-3 | 43   |
| 2          | Benzene, 1-methyl-4-(1-methylethyl) |        | 65539            | 000099-87-6 | 37   |
| 3          | Benzene, 2-ethyl-1,3-dimethyl-      |        | 65533            | 002870-04-4 | 43   |
| 4          | [1,2,4]Triazolo[1,5-a]pyridine      |        | 3638             | 000274-85-1 | 38   |
| 5          | Benzene, isocyanato-                |        | 64502            | 000103-71-9 | 38   |





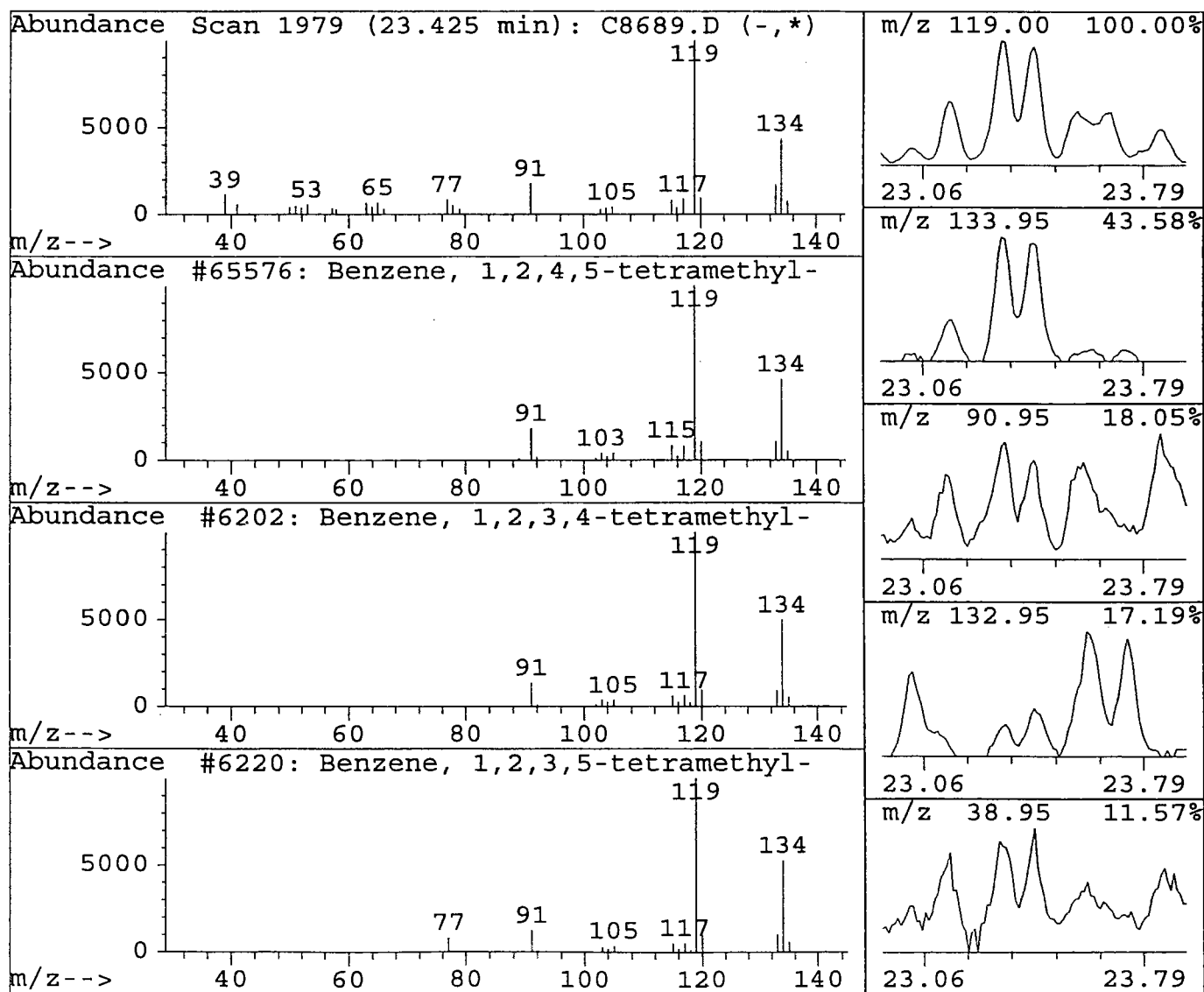
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Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 23.42 | 1.73 ug/L | 285495 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                   | Ref#  | CAS#        | Qual |
|------------|--------------------------------|-------|-------------|------|
| 1          | Benzene, 1,2,4,5-tetramethyl-  | 65576 | 000095-93-2 | 91   |
| 2          | Benzene, 1,2,3,4-tetramethyl-  | 6202  | 000488-23-3 | 91   |
| 3          | Benzene, 1,2,3,5-tetramethyl-  | 6220  | 000527-53-7 | 91   |
| 4          | Benzene, 1-ethyl-2,3-dimethyl- | 65555 | 000933-98-2 | 91   |
| 5          | Benzene, 1-ethyl-3,5-dimethyl- | 65554 | 000934-74-7 | 91   |



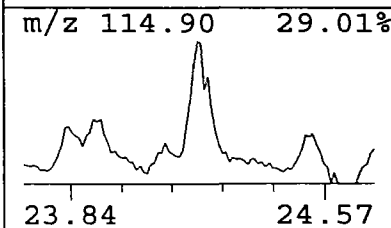
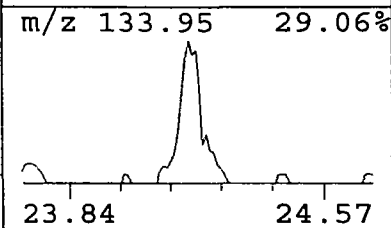
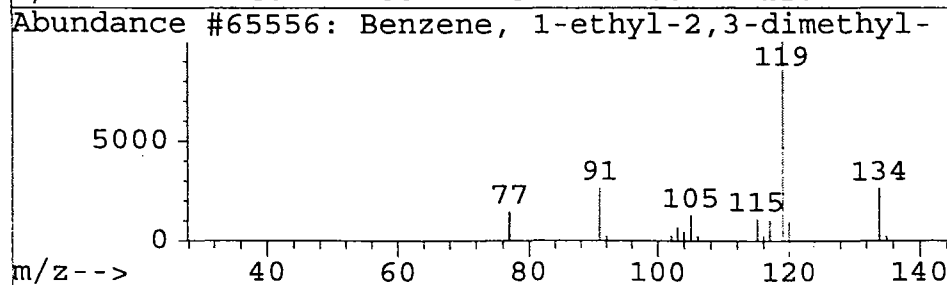
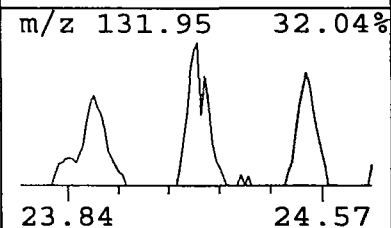
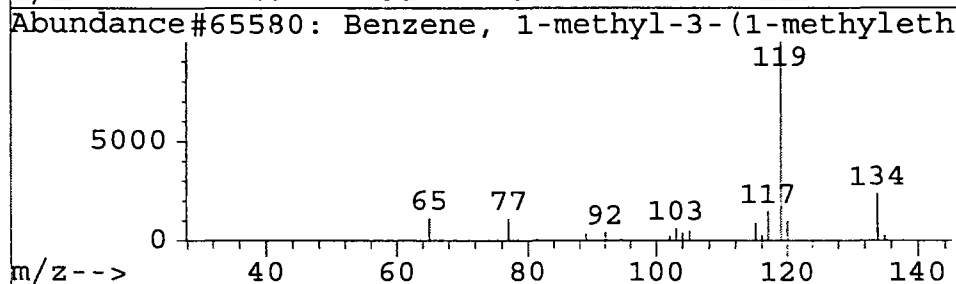
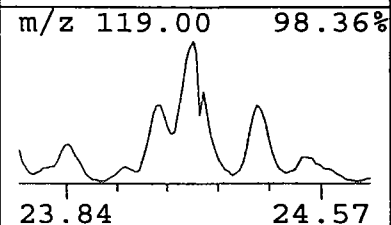
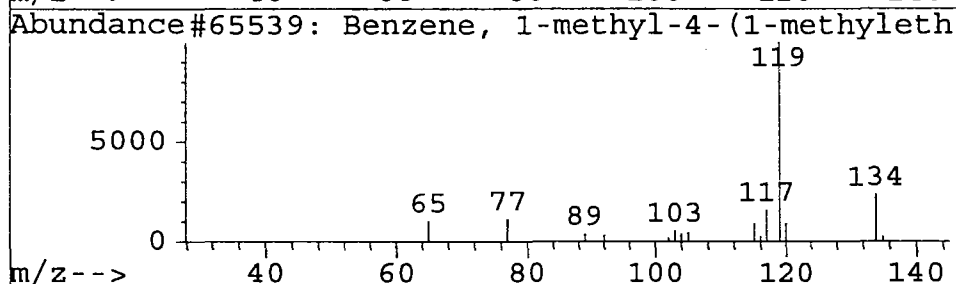
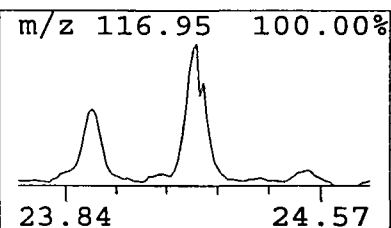
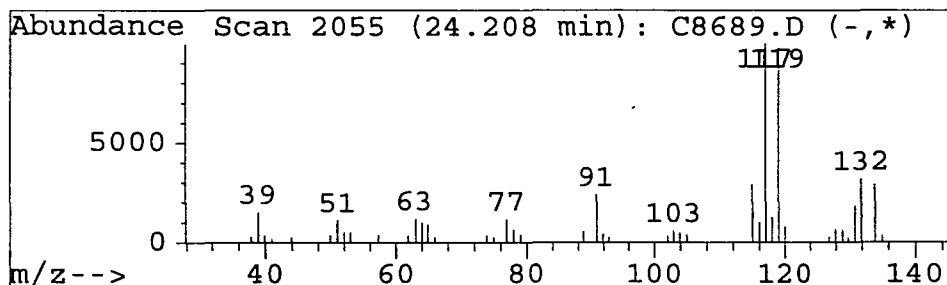
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 24.21 | 1.66 ug/L | 274079 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Benzene, 1-methyl-4-(1-methylethyl) | 65539 | 000099-87-6 | 46   |
| 2          | Benzene, 1-methyl-3-(1-methylethyl) | 65580 | 000535-77-3 | 38   |
| 3          | Benzene, 1-ethyl-2,3-dimethyl-      | 65556 | 000933-98-2 | 46   |
| 4          | Benzene, 4-ethyl-1,2-dimethyl-      | 65569 | 000934-80-5 | 41   |
| 5          | 1H-Indene, 2,3-dihydro-5-methyl-    | 5885  | 000874-35-1 | 55   |



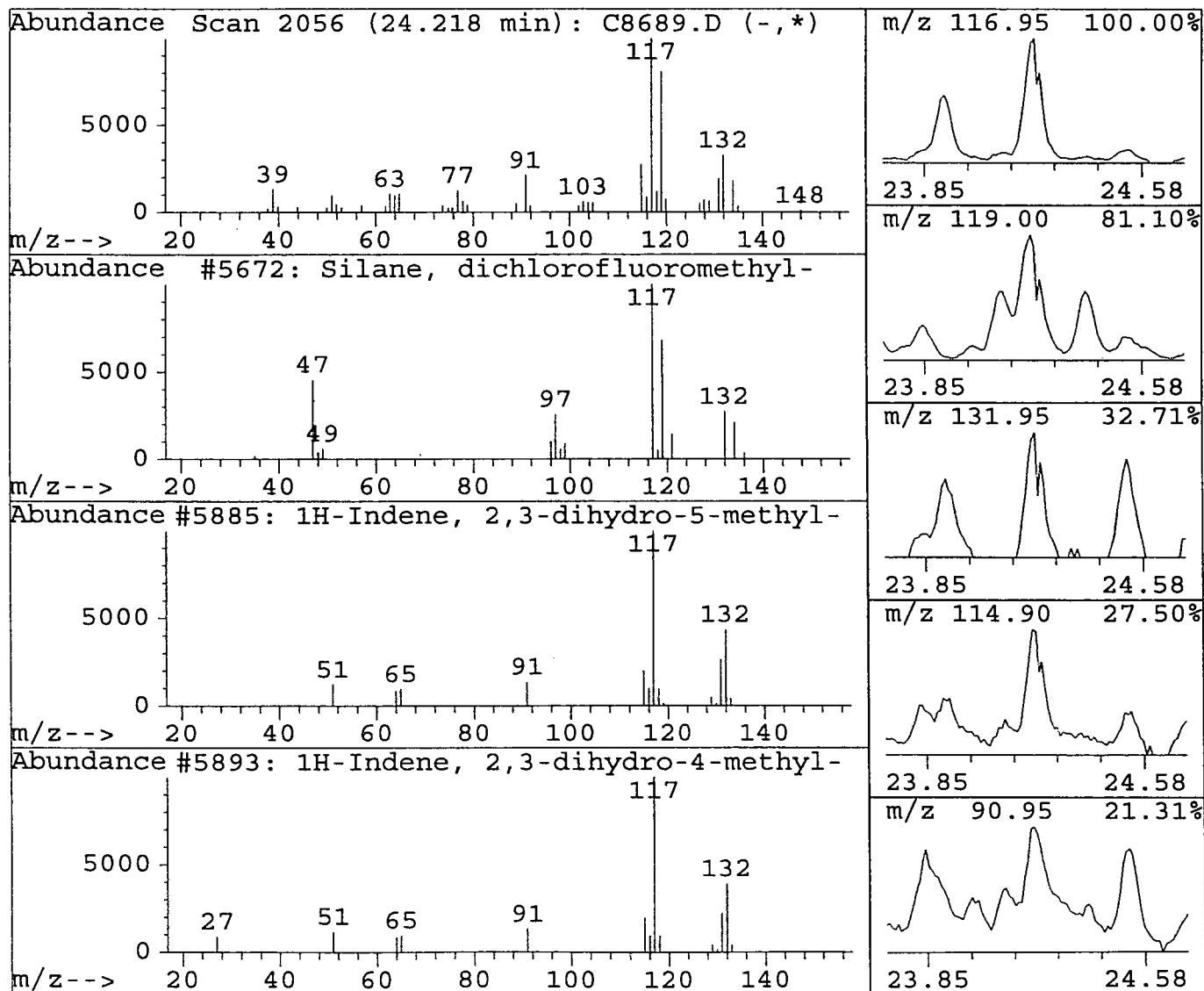
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Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 24.22 | 1.23 ug/L | 203124 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref# | CAS#        | Qual |
|------------|-------------------------------------|------|-------------|------|
| 1          | Silane, dichlorofluoromethyl-       | 5672 | 000420-58-6 | 59   |
| 2          | 1H-Indene, 2,3-dihydro-5-methyl-    | 5885 | 000874-35-1 | 60   |
| 3          | 1H-Indene, 2,3-dihydro-4-methyl-    | 5893 | 000824-22-6 | 60   |
| 4          | Indan, 1-methyl-                    | 5882 | 000767-58-8 | 46   |
| 5          | Benzene, (1-methyl-1-propenyl)-, (Z | 5904 | 000767-99-7 | 30   |



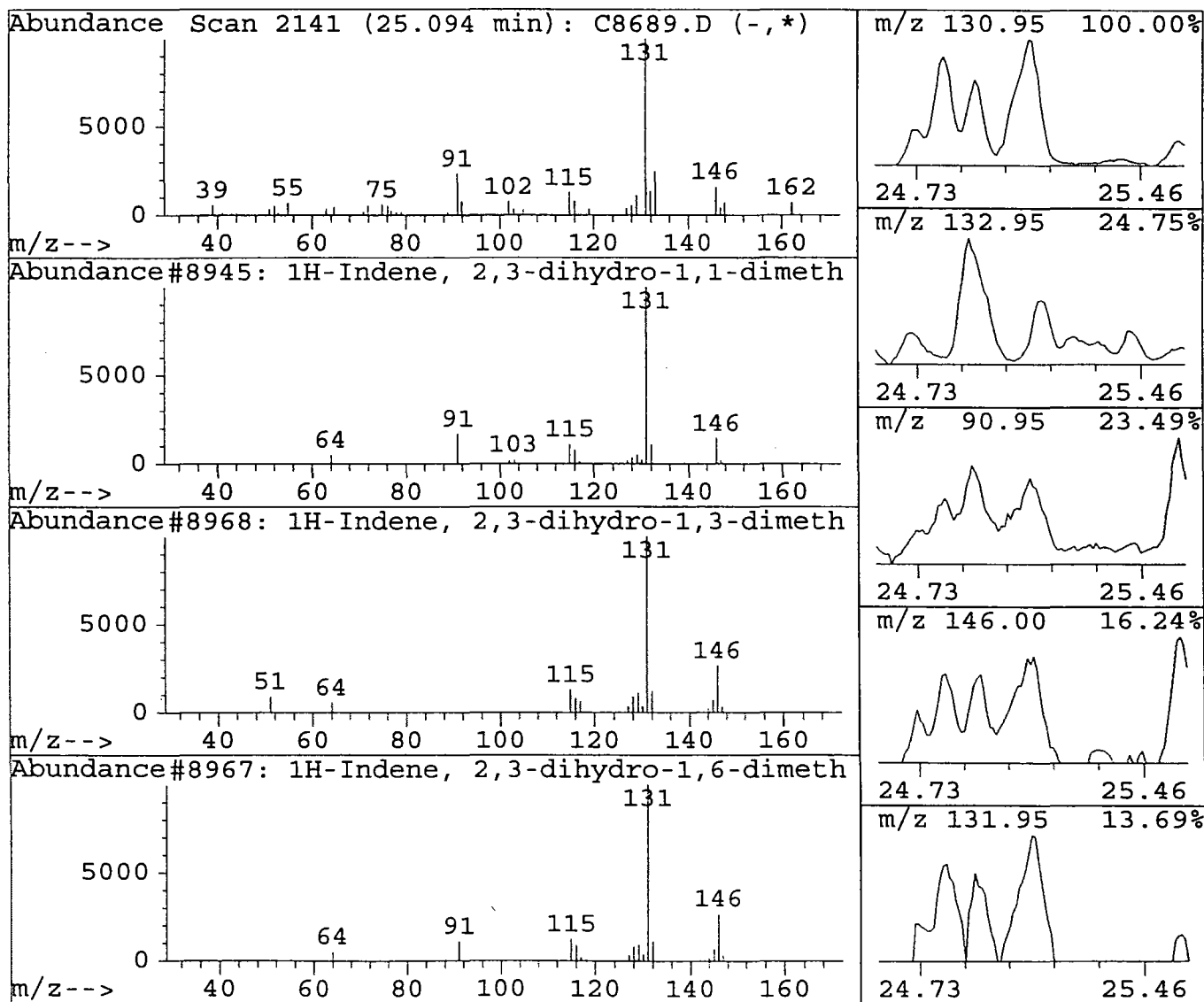
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 25.09 | 2.06 ug/L | 340348 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref# | CAS#        | Qual |
|------------|-------------------------------------|------|-------------|------|
| 1          | 1H-Indene, 2,3-dihydro-1,1-dimethyl | 8945 | 004912-92-9 | 68   |
| 2          | 1H-Indene, 2,3-dihydro-1,3-dimethyl | 8968 | 004175-53-5 | 38   |
| 3          | 1H-Indene, 2,3-dihydro-1,6-dimethyl | 8967 | 017059-48-2 | 43   |
| 4          | 1H-Indene, 2,3-dihydro-1,2-dimethyl | 8947 | 017057-82-8 | 38   |
| 5          | Naphthalene, 1,2,3,4-tetrahydro-1-m | 8942 | 001559-81-5 | 35   |



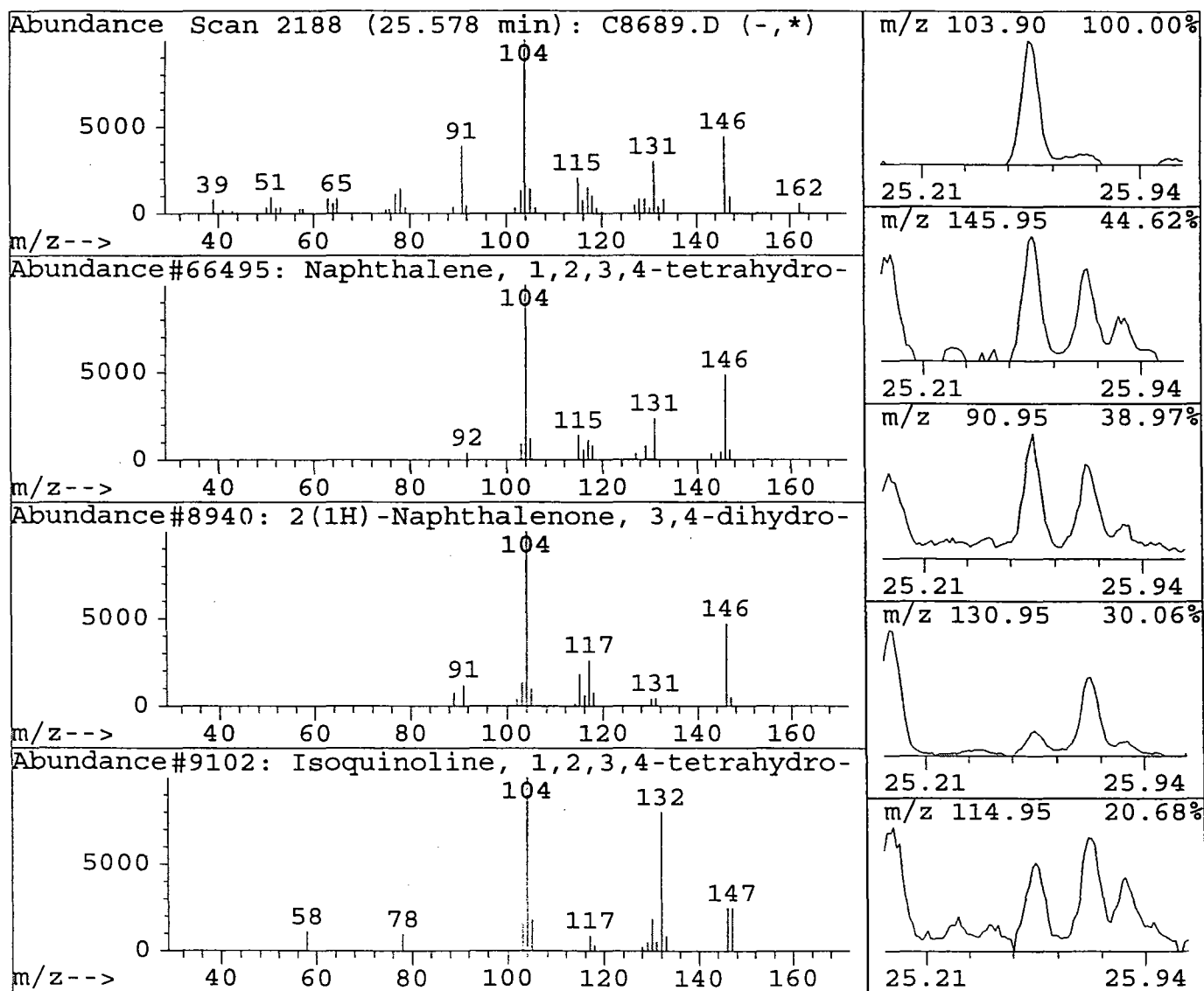
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 25.58 | 2.36 ug/L | 390683 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Naphthalene, 1,2,3,4-tetrahydro-2-m | 66495 | 003877-19-8 | 94   |
| 2          | 2(1H)-Naphthalenone, 3,4-dihydro-   | 8940  | 000530-93-8 | 64   |
| 3          | Isoquinoline, 1,2,3,4-tetrahydro-3- | 9102  | 029726-60-1 | 38   |
| 4          | Naphthalene, 1,2,3,4-tetrahydro-    | 65415 | 000119-64-2 | 12   |
| 5          | 2-Methylbenzyl cyanide              | 5640  | 022364-68-7 | 14   |

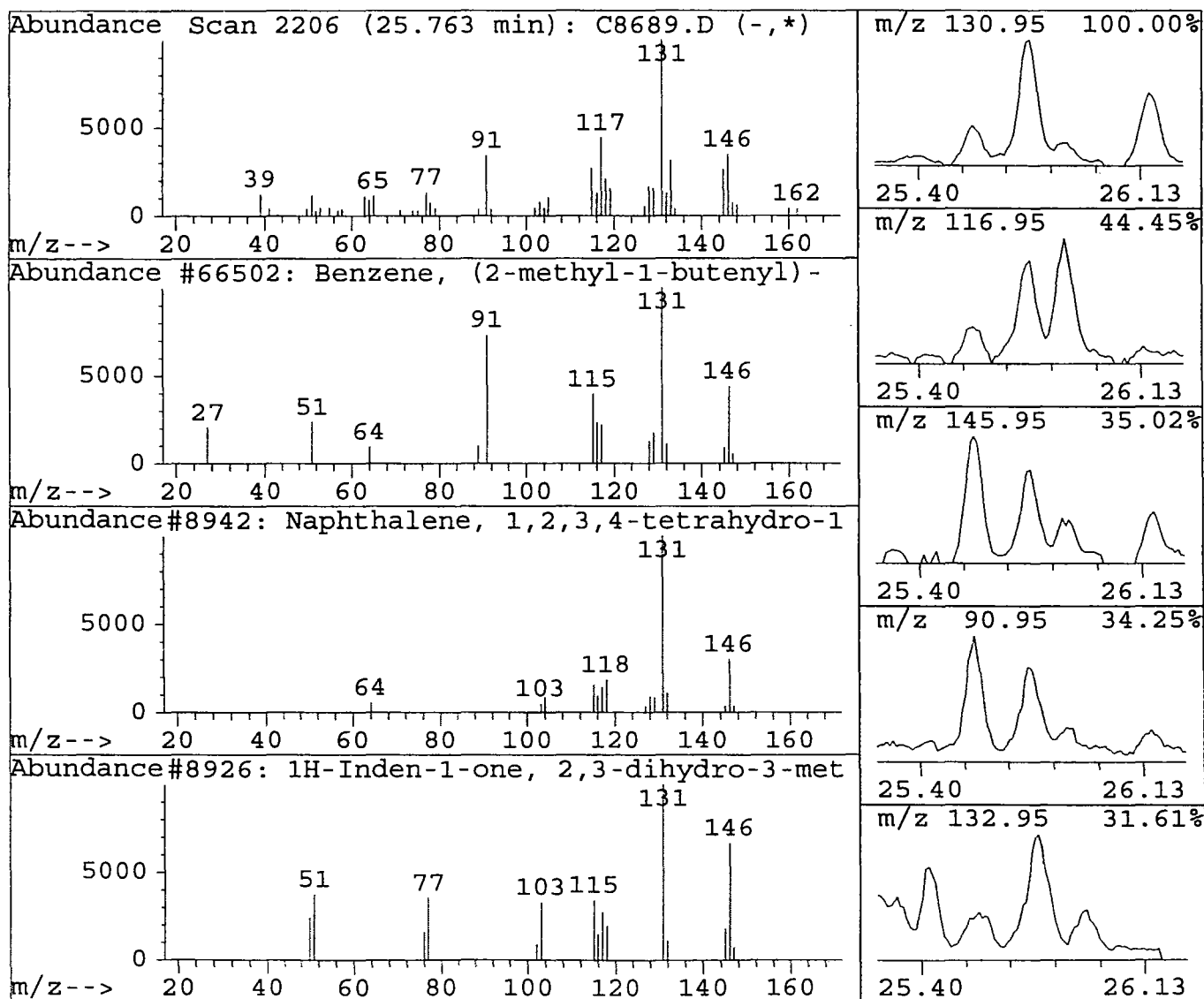


Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.       | Conc                                | Area   | Relative to ISTD | R.T.        |      |
|------------|-------------------------------------|--------|------------------|-------------|------|
| 25.76      | 2.00 ug/L                           | 330316 | Fluorobenzene    | 11.91       |      |
| Hit# of 20 | Tentative ID                        |        | Ref#             | CAS#        | Qual |
| 1          | Benzene, (2-methyl-1-butenyl)-      |        | 66502            | 056253-64-6 | 47   |
| 2          | Naphthalene, 1,2,3,4-tetrahydro-1-m |        | 8942             | 001559-81-5 | 64   |
| 3          | 1H-Inden-1-one, 2,3-dihydro-3-methy |        | 8926             | 006072-57-7 | 37   |
| 4          | 1H-Indene, 2,3-dihydro-1,2-dimethyl |        | 8947             | 017057-82-8 | 55   |
| 5          | Benzene, (3-methyl-2-butenyl)-      |        | 8959             | 004489-84-3 | 55   |



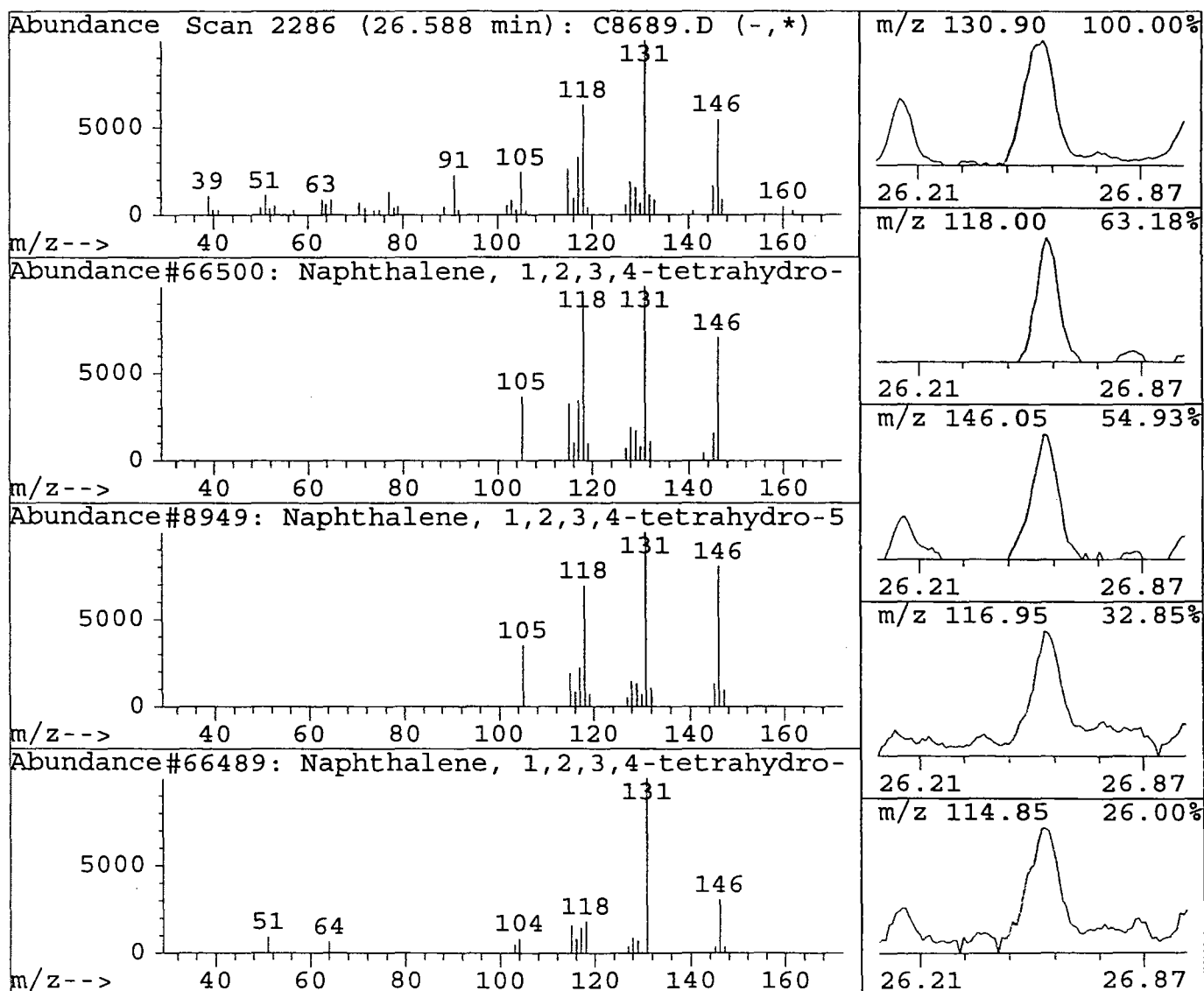
Data File : d:\hpchem\1\data\c8689.d  
Acq On : 27 Jun 95 9:21 pm  
Sample : 9526460  
Misc : 25 ML

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : C:\DATABASE\NBS75K.L

| R.T.  | Conc      | Area   | Relative to ISTD | R.T.  |
|-------|-----------|--------|------------------|-------|
| 26.59 | 1.33 ug/L | 220383 | Fluorobenzene    | 11.91 |

| Hit# of 20 | Tentative ID                        | Ref#  | CAS#        | Qual |
|------------|-------------------------------------|-------|-------------|------|
| 1          | Naphthalene, 1,2,3,4-tetrahydro-6-m | 66500 | 001680-51-9 | 94   |
| 2          | Naphthalene, 1,2,3,4-tetrahydro-5-m | 8949  | 002809-64-5 | 94   |
| 3          | Naphthalene, 1,2,3,4-tetrahydro-1-m | 66489 | 001559-81-5 | 43   |
| 4          | Benzene, (2-methyl-1-butenyl)-      | 8971  | 056253-64-6 | 62   |
| 5          | Benzene, (3-methyl-2-butenyl)-      | 8959  | 004489-84-3 | 70   |



## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

164

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | SMC1<br>(BFB) # | SMC2<br>(DCB) # | # | OTHER<br># | TOT<br>OUT |
|----|------------|-----------------|-----------------|---|------------|------------|
| 01 | 1PPB STD   | 105             | 106             |   |            |            |
| 02 | VLK01      | 105             | 105             |   |            |            |
| 03 | 9525784V   | 102             | 108             |   |            |            |
| 04 | 9527186V   | 104             | 103             |   |            |            |
| 05 | 9526426V   | 102             | 105             |   |            |            |
| 06 | 9526427V   | 103             | 105             |   |            |            |
| 07 | 9526428V   | 101             | 103             |   |            |            |
| 08 | 9526429V   | 100             | 98              |   |            |            |
| 09 | 9526430V   | 96              | 95              |   |            |            |
| 10 | 9526431V   | 99              | 99              |   |            |            |
| 11 | 9526431MS  | 101             | 101             |   |            |            |
| 12 | 9526431MSD | 100             | 99              |   |            |            |
| 13 | 10PPBQCS   | 99              | 98              |   |            |            |
| 14 |            |                 |                 |   |            |            |
| 15 |            |                 |                 |   |            |            |
| 16 |            |                 |                 |   |            |            |
| 17 |            |                 |                 |   |            |            |
| 18 |            |                 |                 |   |            |            |
| 19 |            |                 |                 |   |            |            |
| 20 |            |                 |                 |   |            |            |
| 21 |            |                 |                 |   |            |            |
| 22 |            |                 |                 |   |            |            |
| 23 |            |                 |                 |   |            |            |
| 24 |            |                 |                 |   |            |            |
| 25 |            |                 |                 |   |            |            |
| 26 |            |                 |                 |   |            |            |
| 27 |            |                 |                 |   |            |            |
| 28 |            |                 |                 |   |            |            |
| 29 |            |                 |                 |   |            |            |
| 30 |            |                 |                 |   |            |            |

SMC1 (BFB) = 4-Bromofluorobenzene  
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS  
 (80-120)  
 (80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | SMC1<br>(BFB) # | SMC2<br>(DCB) # | # | OTHER<br># | TOT<br>OUT |
|----|------------|-----------------|-----------------|---|------------|------------|
| 01 | 1PPB STD   | 105             | 105             |   |            |            |
| 02 | VBLK01     | 106             | 107             |   |            |            |
| 03 | 9526458V   | 106             | 108             |   |            |            |
| 04 | 9526459V   | 106             | 111             |   |            |            |
| 05 | 9526432V   | 106             | 108             |   |            |            |
| 06 | 9526433V   | 105             | 108             |   |            |            |
| 07 | 9526434V   | 105             | 108             |   |            |            |
| 08 | 9526436V   | 105             | 110             |   |            |            |
| 09 | 9526462V   | 103             | 104             |   |            |            |
| 10 | 9526435V   | 105             | 108             |   |            |            |
| 11 | 10PPB QCS  | 100             | 99              |   |            |            |
| 12 |            |                 |                 |   |            |            |
| 13 |            |                 |                 |   |            |            |
| 14 |            |                 |                 |   |            |            |
| 15 |            |                 |                 |   |            |            |
| 16 |            |                 |                 |   |            |            |
| 17 |            |                 |                 |   |            |            |
| 18 |            |                 |                 |   |            |            |
| 19 |            |                 |                 |   |            |            |
| 20 |            |                 |                 |   |            |            |
| 21 |            |                 |                 |   |            |            |
| 22 |            |                 |                 |   |            |            |
| 23 |            |                 |                 |   |            |            |
| 24 |            |                 |                 |   |            |            |
| 25 |            |                 |                 |   |            |            |
| 26 |            |                 |                 |   |            |            |
| 27 |            |                 |                 |   |            |            |
| 28 |            |                 |                 |   |            |            |
| 29 |            |                 |                 |   |            |            |
| 30 |            |                 |                 |   |            |            |

SMC1 (BFB) = 4-Bromofluorobenzene  
SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS  
(80-120)  
(80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

166

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | SMC1<br>(BFB) # | SMC2<br>(DCB) # | # | OTHER<br># | TOT<br>OUT |
|----|------------|-----------------|-----------------|---|------------|------------|
| 01 | 1PPB STD   | 111             | 106             |   |            |            |
| 02 | VBLK01     | 105             | 100             |   |            |            |
| 03 | 9526604V   | 106             | 100             |   |            |            |
| 04 | 9526605V   | 109             | 104             |   |            |            |
| 05 | 9526797V   | 106             | 101             |   |            |            |
| 06 | 9526798V   | 104             | 100             |   |            |            |
| 07 | 9526609V   | 106             | 97              |   |            |            |
| 08 | 9526460V   | 109             | 100             |   |            |            |
| 09 | 9526799V   | 104             | 97              |   |            |            |
| 10 | 9526800V   | 106             | 101             |   |            |            |
| 11 | 9526801V   | 115             | 102             |   |            |            |
| 12 | 9526608V   | 111             | 104             |   |            |            |
| 13 | 10PPB QCS  | 110             | 100             |   |            |            |
| 14 |            |                 |                 |   |            |            |
| 15 |            |                 |                 |   |            |            |
| 16 |            |                 |                 |   |            |            |
| 17 |            |                 |                 |   |            |            |
| 18 |            |                 |                 |   |            |            |
| 19 |            |                 |                 |   |            |            |
| 20 |            |                 |                 |   |            |            |
| 21 |            |                 |                 |   |            |            |
| 22 |            |                 |                 |   |            |            |
| 23 |            |                 |                 |   |            |            |
| 24 |            |                 |                 |   |            |            |
| 25 |            |                 |                 |   |            |            |
| 26 |            |                 |                 |   |            |            |
| 27 |            |                 |                 |   |            |            |
| 28 |            |                 |                 |   |            |            |
| 29 |            |                 |                 |   |            |            |
| 30 |            |                 |                 |   |            |            |

SMC1 (BFB) = 4-Bromofluorobenzene  
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS  
 (80-120)  
 (80-120)

- # Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D System Monitoring Compound diluted out

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

167

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C8620.D Lab Sample ID: M. BLANK

Date Analyzed: 6/21/95 Time Analyzed: 1712

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | TIME<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 1PPB STD   | 1PPB STD         | C8619.D        | 1637             |
| 02 | 9525784V   | 9525784V         | C8621.D        | 1748             |
| 03 | 9527186V   | 9527186V         | C8622.D        | 1823             |
| 04 | 9526426V   | 9526426V         | C8623.D        | 1857             |
| 05 | 9526427V   | 9526427V         | C8624.D        | 1932             |
| 06 | 9526428V   | 9526428V         | C8625.D        | 2006             |
| 07 | 9526429V   | 9526429V         | C8626.D        | 2040             |
| 08 | 9526430V   | 9526430V         | C8627.D        | 2114             |
| 09 | 9526431V   | 9526431V         | C8628.D        | 2148             |
| 10 | 9526431MS  | 26431MS          | C8629.D        | 2223             |
| 11 | 9526431MSD | 26431MSD         | C8630.D        | 2257             |
| 12 | 10PPBQCS   | 10PPBQCS         | C8631.D        | 2331             |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
 Matrix (soil/water): WATER  
 Sample wt/vol: 25 mL  
 Level (low/med): LOW  
 % Moisture: not dec.: NA  
 GC Column: DB-624 x 75m ID: 0.53mm  
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK  
 Lab File ID: C8620.D  
 Date Received: NA  
 Date Analyzed: 06/21/95  
 Dilution Factor: 1  
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NO.                      COMPOUND                      COMMENT

|                |                           |     |   |
|----------------|---------------------------|-----|---|
| 75-71-8-----   | Dichlorodifluoromethane   | .50 | U |
| 74-87-3-----   | Chloromethane             | .50 | U |
| 74-83-9-----   | Bromomethane              | .50 | U |
| 75-01-4-----   | Vinyl Chloride            | .50 | U |
| 75-00-3-----   | Chloroethane              | .50 | U |
| 75-69-4-----   | Trichlorofluoromethane    | .50 | U |
| 75-09-2-----   | Methylene Chloride        | 1.5 |   |
| 156-60-65----  | trans-1,2-Dichloroethene  | .50 | U |
| 75-35-4-----   | 1,1-Dichloroethene        | .50 | U |
| 75-34-3-----   | 1,1-Dichloroethane        | .50 | U |
| 594-20-7-----  | 2,2-Dichloropropane       | .50 | U |
| 74-97-1-----   | Bromochloromethane        | .50 | U |
| 156-59-2-----  | cis-1,2-Dichloroethene    | .50 | U |
| 67-66-3-----   | Chloroform                | .50 | U |
| 563-58-6-----  | 1,1-Dichloropropene       | .50 | U |
| 107-06-2-----  | 1,2-Dichloroethane        | .50 | U |
| 71-55-6-----   | 1,1,1-Trichloroethane     | .50 | U |
| 74-95-3-----   | Dibromomethane            | .50 | U |
| 56-23-1-----   | Carbon Tetrachloride      | .50 | U |
| 75-27-4-----   | Bromodichloromethane      | .50 | U |
| 78-87-1-----   | 1,2-Dichloropropane       | .50 | U |
| 10061-01-1---- | cis-1,3-Dichloropropene   | .50 | U |
| 142-28-9-----  | 1,3-Dichloropropane       | .50 | U |
| 79-01-6-----   | Trichloroethene           | .50 | U |
| 124-48-1-----  | Dibromochloromethane      | .50 | U |
| 79-00-1-----   | 1,1,2-Trichloroethane     | .50 | U |
| 71-43-2-----   | Benzene                   | .50 | U |
| 10061-02-6---- | trans-1,3-Dichloropropene | .50 | U |
| 75-25-2-----   | Bromoform                 | .50 | U |
| 630-20-6-----  | 1,1,1,2-Tetrachloroethane | .50 | U |
| 127-18-4-----  | Tetrachloroethene         | .50 | U |
| 79-34-1-----   | 1,1,2,2-Tetrachloroethane | .50 | U |
| 108-88-3-----  | Toluene                   | .50 | U |
| 106-93-4-----  | 1,2-Dibromoethane         | .50 | U |
| 108-90-7-----  | Chlorobenzene             | .50 | U |
| 100-41-4-----  | Ethylbenzene              | .50 | U |
| 1330-29-7----- | Xylene (total)            | .50 | U |

U= Not Detected

1A  
VOLATILE ORGANIC ANALYSIS DATA SHEET  
EPA 524.2

Lab Name: EMSL ANALYTICAL  
 Matrix (soil/water): WATER  
 Sample wt/vol: 25 mL  
 Level (low/med): LOW  
 % Moisture: not dec.: NA  
 GC Column: DB-624 x 75m ID: 0.53mm  
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK  
 Lab File ID: C8620.D  
 Date Received: NA  
 Date Analyzed: 06/21/95  
 Dilution Factor: 1  
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO.                      COMPOUND                      (ug/L or ug/Kg) ug/L                      COMMENT

|               |                             |     |   |
|---------------|-----------------------------|-----|---|
| 100-42-1----- | Styrene                     | .50 | U |
| 98-82-8-----  | Isopropylbenzene            | .50 | U |
| 108-86-1----- | Bromobenzene                | .50 | U |
| 96-18-4-----  | 1,2,3-Trichloropropane      | .50 | U |
| 103-65-1----- | n-Propylbenzene             | .50 | U |
| 95-49-8-----  | 2-Chlorotoluene             | .50 | U |
| 106-43-4----- | 4-Chlorotoluene             | .50 | U |
| 108-67-8----- | 1,3,5-Trimethylbenzene      | .50 | U |
| 98-06-6-----  | tert-Butylbenzene           | .50 | U |
| 95-63-6-----  | 1,2,4-Trimethylbenzene      | .50 | U |
| 135-98-8----- | sec-Butylbenzene            | .50 | U |
| 541-73-1----- | 1,3-Dichlorobenzene         | .50 | U |
| 106-46-7----- | 1,4-Dichlorobenzene         | .50 | U |
| 99-87-6-----  | 4-Isopropyltoluene          | .50 | U |
| 95-50-1-----  | 1,2-Dichlorobenzene         | .50 | U |
| 104-51-8----- | n-Butylbenzene              | .50 | U |
| 96-12-8-----  | 1,2-Dibromo-3-chloropropane | .50 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene      | .50 | U |
| 87-68-3-----  | Hexachlorobutadiene         | .50 | U |
| 91-20-3-----  | Naphthalene                 | .50 | U |
| 87-61-6-----  | 1,2,3-Trichlorobenzene      | .50 | U |
| 1634-04-4---- | Methyl-tertiary butyl ether | .50 | U |
| 75-65-0-----  | tertiary-Butyl alcohol      | 2.0 | U |

COMMENT

U= Not Detected

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBK01

170

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8620.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 6/21/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

Concentration Units:

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc. | Q |
|------------|---------------|----|------------|---|
| 1.         | NONE FOUND    |    |            |   |
| 2.         |               |    |            |   |
| 3.         |               |    |            |   |
| 4.         |               |    |            |   |
| 5.         |               |    |            |   |
| 6.         |               |    |            |   |
| 7.         |               |    |            |   |
| 8.         |               |    |            |   |
| 9.         |               |    |            |   |
| 10.        |               |    |            |   |
| 11.        |               |    |            |   |
| 12.        |               |    |            |   |
| 13.        |               |    |            |   |
| 14.        |               |    |            |   |
| 15.        |               |    |            |   |
| 16.        |               |    |            |   |
| 17.        |               |    |            |   |
| 18.        |               |    |            |   |
| 19.        |               |    |            |   |
| 20.        |               |    |            |   |
| 21.        |               |    |            |   |
| 22.        |               |    |            |   |
| 23.        |               |    |            |   |
| 24.        |               |    |            |   |
| 25.        |               |    |            |   |
| 26.        |               |    |            |   |
| 27.        |               |    |            |   |
| 28.        |               |    |            |   |
| 29.        |               |    |            |   |
| 30.        |               |    |            |   |

## Quantitation Report

Data File : d:\hpchem\1\data\c8620.d  
Acq On : 21 Jun 95 5:12 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 22 15:08 1995

Vial: 4 171  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene            | 11.89 | 96   | 698713   | 5.00 | ug/L  | 0.05      |
| System Monitoring Compounds |       |      |          |      |       | %Recovery |
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 365041   | 5.24 | ug/L  | 104.75%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.92 | 152  | 166792   | 5.24 | ug/L  | 104.78%   |
| Target Compounds            |       |      |          |      |       | Qvalue    |
| 9) Methylene chloride       | 7.47  | 84   | 55780    | 1.46 | ug/L  | 94        |

(#) = qualifier out of range (m) = manual integration

c8620.d VOA524.M

Thu Jun 22 15:35:34 1995

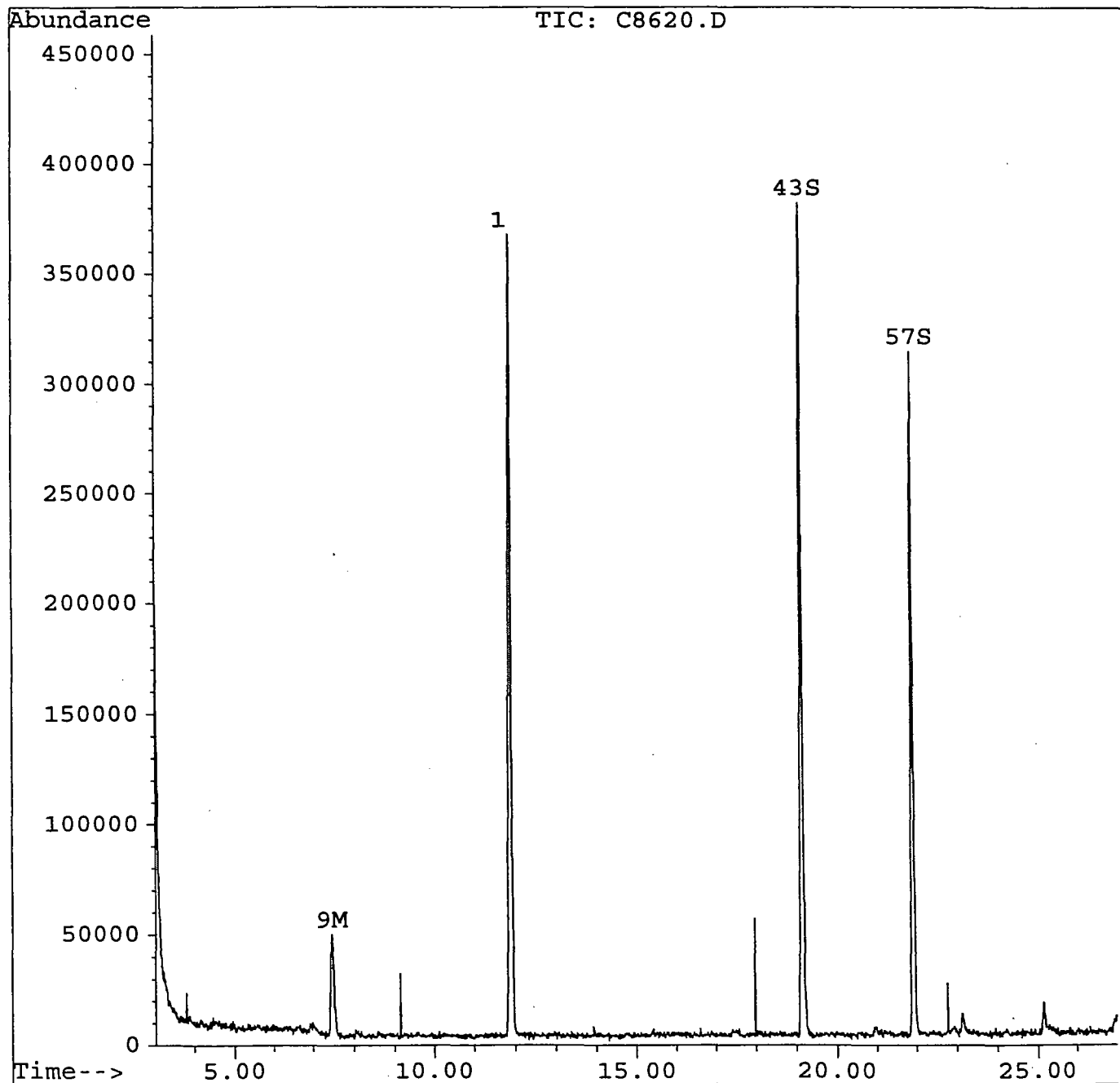
VOA

Page 1

Data File : d:\hpchem\1\data\c8620.d  
Acq On : 21 Jun 95 5:12 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 22 15:08 1995

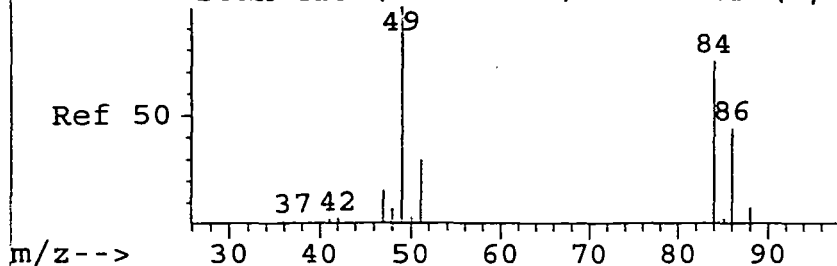
Vial: 4 172  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

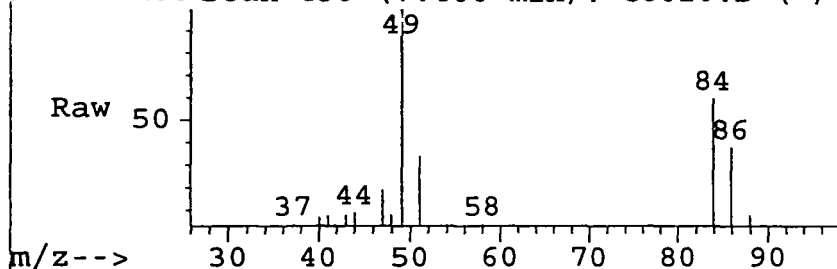




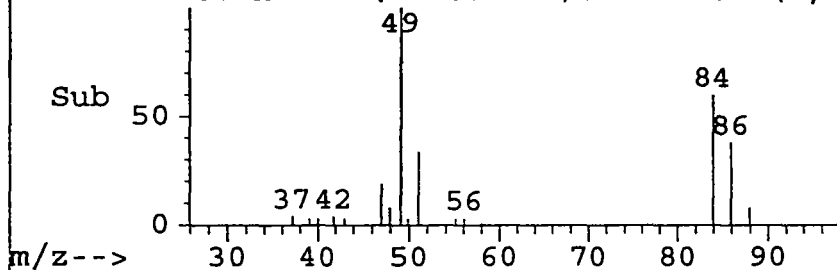
Abundance Scan 418 (7.345 min): C5082.D (-, \*



Abundance Scan 430 (7.466 min): C8620.D (\*)



Abundance Scan 430 (7.466 min): C8620.D (-, \*



#9

Methylene chloride

Concen: 1.46 ug/L

RT: 7.47 min Scan# 430

Delta R.T. 0.06 min

Lab File: c8620.d

Acq: 21 Jun 95 5:12 pm

Tgt Ion: 84 Resp: 55780

Ion Ratio Lower Upper

84 100

86 63.7 43.1 83.1

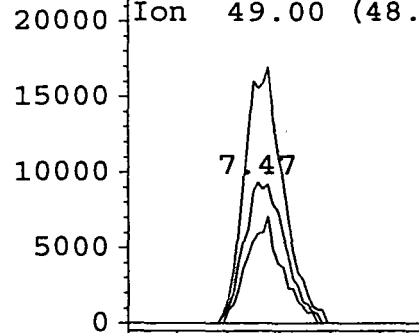
49 166.3 136.3 176.3

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.



Time--&gt;7.19 7.72

Library Search Compound Report

174

Data File : d:\hpchem\1\data\c8620.d  
Acq On : 21 Jun 95 5:12 pm  
Sample : METHOD BLANK  
Misc : 25 ML

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

**VBK01**

175

Lab Name: EMSL ANALYTICAL Contract: U.S ARM

Project No.: FT. MONMOUTH NJ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C8635.D Lab Sample ID: M. BLANK

Date Analyzed: 6/22/95 Time Analyzed: 1913

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | TIME<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 1PPB STD   | 1PPB STD         | C8634.D        | 1838             |
| 02 | 9526458V   | 9526458V         | C8636.D        | 1948             |
| 03 | 9526459V   | 9526459V         | C8637.D        | 2023             |
| 04 | 9526432V   | 9526432V         | C8638.D        | 2058             |
| 05 | 9526433V   | 9526443V         | C8639.D        | 2133             |
| 06 | 9526434V   | 9526434V         | C8640.D        | 2207             |
| 07 | 9526436V   | 9526436V         | C8641.D        | 2242             |
| 08 | 9526462V   | 9526462V         | C8644.D        | 0027             |
| 09 | 9526435V   | 9526435V         | C8645.D        | 0101             |
| 10 | 1PPB QCS   | 1PPB QCS         | C8646.D        | 0136             |
| 11 |            |                  |                |                  |
| 12 |            |                  |                |                  |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

## VOLATILE ORGANICS ANALYSIS DATA SHEET

FMEIL#

176

Lab Name: EMSL ANALYTICALContract: U.S. ARMYProject No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#:

Matrix: (soil/water) WATERLab Sample ID: M. BLANKSample wt/vol: 25.0 (g/mL) MLLab File ID: C8635.DLevel: (low/med) LOWDate Received: NA% Moisture: not dec. NADate Analyzed: 6/22/95GC Column: DB-624 x 75m ID: 0.53 (mm)Dilution Factor: 1.0

## Concentration Units:

| CAS No.    | Compound                  | (ug/L or ug/Kg) | ug/L | Q |
|------------|---------------------------|-----------------|------|---|
| 75-71-8    | Dichlorodifluoromethane   | .50             |      | U |
| 74-87-3    | Chloromethane             | .50             |      | U |
| 75-01-4    | Vinyl chloride            | .50             |      | U |
| 74-83-9    | Bromomethane              | .50             |      | U |
| 75-00-3    | Chloroethane              | .50             |      | U |
| 75-69-4    | Trichlorofluoromethane    | .50             |      | U |
| 75-35-4    | 1,1-Dichloroethene        | .50             |      | U |
| 75-09-2    | Methylene chloride        | 2.0             |      |   |
| 156-60-65  | trans-1,2-Dichloroethene  | .50             |      | U |
| 75-34-3    | 1,1-Dichloroethane        | .50             |      | U |
| 594-20-7   | 2,2-Dichloropropane       | .50             |      | U |
| 156-59-2   | cis-1,2-Dichloroethene    | .50             |      | U |
| 74-97-1    | Bromochloromethane        | .50             |      | U |
| 67-66-3    | Chloroform                | .50             |      | U |
| 71-55-6    | 1,1,1-Trichloroethane     | .50             |      | U |
| 56-23-1    | Carbon tetrachloride      | .50             |      | U |
| 563-58-6   | 1,1-Dichloropropene       | .50             |      | U |
| 71-43-2    | Benzene                   | .50             |      | U |
| 107-06-2   | 1,2-Dichloroethane        | .50             |      | U |
| 79-01-6    | Trichloroethene           | .50             |      | U |
| 78-87-1    | 1,2-Dichloropropane       | .50             |      | U |
| 74-95-3    | Dibromomethane            | .50             |      | U |
| 75-27-4    | Bromodichloromethane      | .50             |      | U |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50             |      | U |
| 108-88-3   | Toluene                   | .50             |      | U |
| 10061-02-6 | trans-1,3-Dichloropropene | .50             |      | U |
| 79-00-1    | 1,1,2-Trichloroethane     | .50             |      | U |
| 127-18-4   | Tetrachloroethene         | .50             |      | U |
| 142-28-9   | 1,3-Dichloropropane       | .50             |      | U |
| 124-48-1   | Dibromochloromethane      | .50             |      | U |
| 106-93-4   | 1,2-Dibromomethane        | .50             |      | U |
| 108-90-7   | Chlorobenzene             | .50             |      | U |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50             |      | U |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

177

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#:

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8635.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 6/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      | Q |
|-----------|-----------------------------|----------------------|------|---|
|           |                             | (ug/L or ug/Kg)      | ug/L |   |
| 100-41-4  | Ethylbenzene                | .50                  |      | U |
| 1330-29-7 | Xylene (total)              | .50                  |      | U |
| 100-42-1  | Styrene                     | .50                  |      | U |
| 75-25-2   | Bromoform                   | .50                  |      | U |
| 98-82-8   | Isopropylbenzene            | .50                  |      | U |
| 108-86-1  | Bromobenzene                | .50                  |      | U |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  |      | U |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  |      | U |
| 103-65-1  | n-Propylbenzene             | .50                  |      | U |
| 95-49-8   | 2-Chlorotoluene             | .50                  |      | U |
| 106-43-4  | 4-Chlorotoluene             | .50                  |      | U |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  |      | U |
| 98-06-6   | tert-Butylbenzene           | .50                  |      | U |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  |      | U |
| 135-98-8  | sec-Butylbenzene            | .50                  |      | U |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  |      | U |
| 99-87-6   | 4-Isopropyltoluene          | .50                  |      | U |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  |      | U |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  |      | U |
| 104-51-8  | n-Butylbenzene              | .50                  |      | U |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  |      | U |
| 87-68-3   | Hexachlorobutadiene         | .50                  |      | U |
| 91-20-3   | Naphthalene                 | .50                  |      | U |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  |      | U |
| 1634-04-4 | Methy-tertiary butyl ether  | .50                  |      | U |
| 75-65-0   | tertiary-Butyl alcohol      | 2.0                  |      | U |

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

178

Lab Name: EMSL ANALYTICAL Contract: U.S ARMY

Project No. FT. MONMOUTH NJ Bldg#            NJDEP MW#:           

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8635.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 6/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:            (uL) Soil Aliquot Volume:            (uL)

Concentration Units:  
Number TICs found: 0 (ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc. | Q |
|------------|---------------|----|------------|---|
| 1.         | NONE FOUND    |    |            |   |
| 2.         |               |    |            |   |
| 3.         |               |    |            |   |
| 4.         |               |    |            |   |
| 5.         |               |    |            |   |
| 6.         |               |    |            |   |
| 7.         |               |    |            |   |
| 8.         |               |    |            |   |
| 9.         |               |    |            |   |
| 10.        |               |    |            |   |
| 11.        |               |    |            |   |
| 12.        |               |    |            |   |
| 13.        |               |    |            |   |
| 14.        |               |    |            |   |
| 15.        |               |    |            |   |
| 16.        |               |    |            |   |
| 17.        |               |    |            |   |
| 18.        |               |    |            |   |
| 19.        |               |    |            |   |
| 20.        |               |    |            |   |
| 21.        |               |    |            |   |
| 22.        |               |    |            |   |
| 23.        |               |    |            |   |
| 24.        |               |    |            |   |
| 25.        |               |    |            |   |
| 26.        |               |    |            |   |
| 27.        |               |    |            |   |
| 28.        |               |    |            |   |
| 29.        |               |    |            |   |
| 30.        |               |    |            |   |

## Quantitation Report

179

Data File : d:\hpcchem\1\data\c8635.d  
Acq On : 22 Jun 95 7:13 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 26 15:09 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc      | Units | Dev(Min) |
|-----------------------------|-------|------|----------|-----------|-------|----------|
| 1) Fluorobenzene            | 11.89 | 96   | 699604   | 5.00      | ug/L  | 0.05     |
| System Monitoring Compounds |       |      |          | %Recovery |       |          |
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 369468   | 5.29      | ug/L  | 105.88%  |
| 57) 1,2-Dichlorobenzene-d4  | 21.91 | 152  | 170413   | 5.35      | ug/L  | 106.91%  |
| Target Compounds            |       |      |          | Qvalue    |       |          |
| 9) Methylene chloride       | 7.48  | 84   | 82521    | 2.15      | ug/L  | 100      |

(#) = qualifier out of range (m) = manual integration

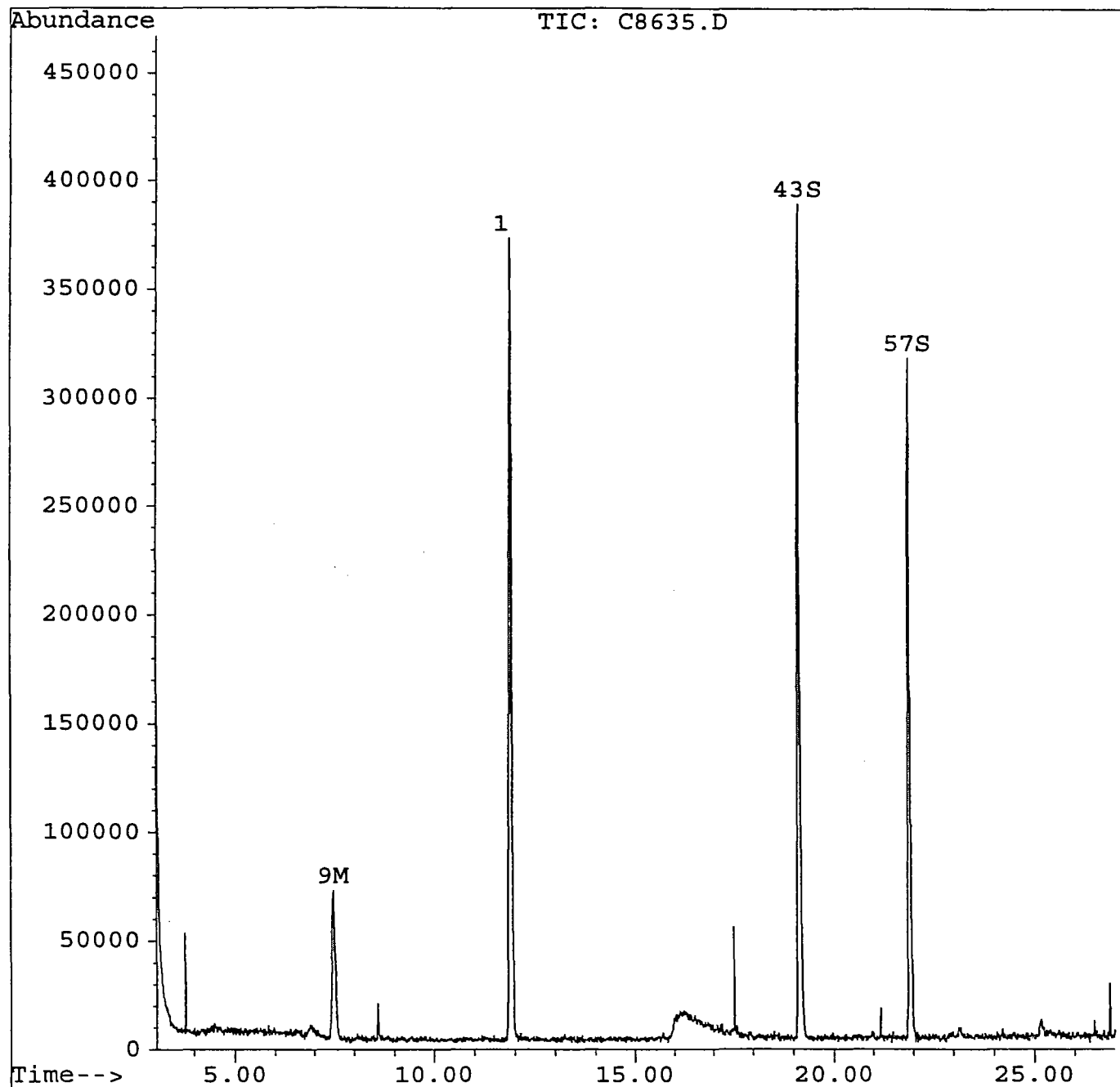
c8635.d VOA524.M Mon Jun 26 16:23:13 1995 VOA

Page 1

Data File : d:\hpchem\1\data\c8635.d  
Acq On : 22 Jun 95 7:13 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 26 15:09 1995

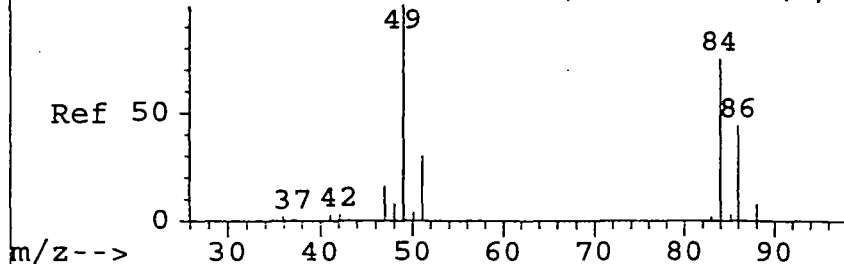
Vial: 4 180  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

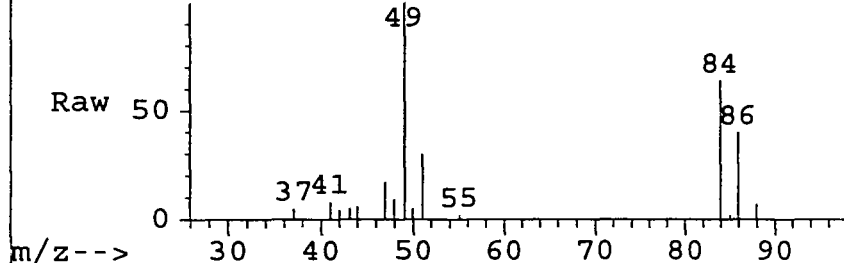




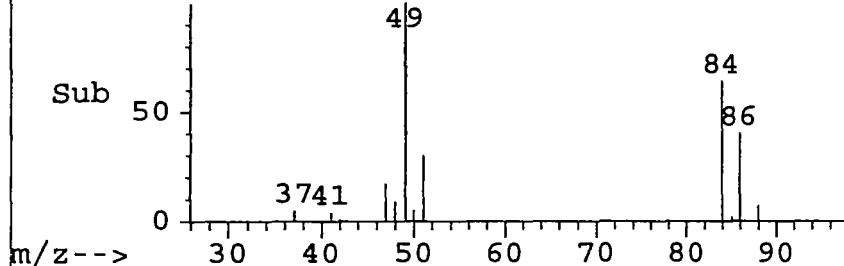
AbundanceScan 418 (7.345 min): C5082.D (-, \*



AbundanceScan 431 (7.480 min): C8635.D (\*)



AbundanceScan 431 (7.480 min): C8635.D (-, \*



#9

Methylene chloride

Concen: 2.15 ug/L

RT: 7.48 min Scan# 431

Delta R.T. 0.07 min

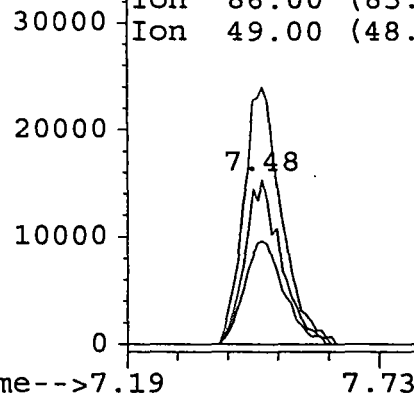
Lab File: c8635.d

Acq: 22 Jun 95 7:13 pm

181

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 82521 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 86       | 62.5  | 43.1  | 83.1  |
| 49       | 156.2 | 136.3 | 176.3 |
| 0        | 0.0   | 0.0   | 0.0   |

|           |     |       |      |
|-----------|-----|-------|------|
| Abundance | Ion | 84.00 | (83. |
|           | Ion | 86.00 | (85. |
|           | Ion | 49.00 | (48. |



Data File : d:\hpchem\1\data\c8635.d  
Acq On : 22 Jun 95 7:13 pm  
Sample : METHOD BLANK  
Misc : 25 ML

Vial: 4 182  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

183

Lab Name: EMSL ANALYTICAL Contract: U.S. AR

Project No.: FT. MONMOUTH NJ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C8683.D Lab Sample ID: M. BLANK

Date Analyzed: 6/27/95 Time Analyzed: 1757

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | TIME<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 1PPB STD   | 1PPB STD         | C8682.D        | 1723             |
| 02 | 9526604V   | 9526604V         | C8684.D        | 1831             |
| 03 | 9526605V   | 9526605V         | C8685.D        | 1905             |
| 04 | 9526797V   | 9526797V         | C8686.D        | 1939             |
| 05 | 9526798V   | 9526798V         | C8687.D        | 2013             |
| 06 | 9526609V   | 9526609V         | C8688.D        | 2047             |
| 07 | 9526460V   | 9526460V         | C8689.D        | 2121             |
| 08 | 9526799V   | 9526799V         | C8690.D        | 2155             |
| 09 | 9526800V   | 9526800V         | C8691.D        | 2230             |
| 10 | 9526801V   | 9526801V         | C8692.D        | 2304             |
| 11 | 9526608V   | 9526608V         | C8693.D        | 2338             |
| 12 | 1PPB QCS   | 1PPB QCS         | C8694.D        | 0012             |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

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## VOLATILE ORGANICS ANALYSIS DATA SHEET

184

Lab Name: EMSL ANALYTICALContract: U.S. ARMYProject No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: M. BLANKSample wt/vol: 25.0 (g/mL) MLLab File ID: C8683.DLevel: (low/med) LOWDate Received: NA% Moisture: not dec. NADate Analyzed: 6/27/95GC Column: DB-624 x 75mID: 0.53 (mm)Dilution Factor: 1.0

| CAS No.    | Compound                  | Concentration Units: |             |
|------------|---------------------------|----------------------|-------------|
|            |                           | (ug/L or ug/Kg)      | <u>ug/L</u> |
|            |                           |                      | Q           |
| 75-71-8    | Dichlorodifluoromethane   | .50                  | U           |
| 74-87-3    | Chloromethane             | .50                  | U           |
| 75-01-4    | Vinyl chloride            | .50                  | U           |
| 74-83-9    | Bromomethane              | .50                  | U           |
| 75-00-3    | Chloroethane              | .50                  | U           |
| 75-69-4    | Trichlorofluoromethane    | .50                  | U           |
| 75-35-4    | 1,1-Dichloroethene        | .50                  | U           |
| 75-09-2    | Methylene chloride        | 2.1                  |             |
| 156-60-65  | trans-1,2-Dichloroethene  | .50                  | U           |
| 75-34-3    | 1,1-Dichloroethane        | .50                  | U           |
| 594-20-7   | 2,2-Dichloropropane       | .50                  | U           |
| 156-59-2   | cis-1,2-Dichloroethene    | .50                  | U           |
| 74-97-1    | Bromochloromethane        | .50                  | U           |
| 67-66-3    | Chloroform                | .50                  | U           |
| 71-55-6    | 1,1,1-Trichloroethane     | .50                  | U           |
| 56-23-1    | Carbon tetrachloride      | .50                  | U           |
| 563-58-6   | 1,1-Dichloropropene       | .50                  | U           |
| 71-43-2    | Benzene                   | .50                  | U           |
| 107-06-2   | 1,2-Dichloroethane        | .50                  | U           |
| 79-01-6    | Trichloroethene           | .50                  | U           |
| 78-87-1    | 1,2-Dichloropropane       | .50                  | U           |
| 74-95-3    | Dibromomethane            | .50                  | U           |
| 75-27-4    | Bromodichloromethane      | .50                  | U           |
| 10061-01-1 | cis-1,3-Dichloropropene   | .50                  | U           |
| 108-88-3   | Toluene                   | .50                  | U           |
| 10061-02-6 | trans-1,3-Dichloropropene | .50                  | U           |
| 79-00-1    | 1,1,2-Trichloroethane     | .50                  | U           |
| 127-18-4   | Tetrachloroethene         | .50                  | U           |
| 142-28-9   | 1,3-Dichloropropane       | .50                  | U           |
| 124-48-1   | Dibromochloromethane      | .50                  | U           |
| 106-93-4   | 1,2-Dibromomethane        | .50                  | U           |
| 108-90-7   | Chlorobenzene             | .50                  | U           |
| 630-20-6   | 1,1,1,2-Tetrachloroethane | .50                  | U           |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

185

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#:

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8683.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

| CAS No.   | Compound                    | Concentration Units: |      |
|-----------|-----------------------------|----------------------|------|
|           |                             | (ug/L or ug/Kg)      | ug/L |
|           |                             |                      | Q    |
| 100-41-4  | Ethylbenzene                | .50                  | U    |
| 1330-29-7 | Xylene (total)              | .50                  | U    |
| 100-42-1  | Styrene                     | .50                  | U    |
| 75-25-2   | Bromoform                   | .50                  | U    |
| 98-82-8   | Isopropylbenzene            | .50                  | U    |
| 108-86-1  | Bromobenzene                | .50                  | U    |
| 79-34-1   | 1,1,2,2-Tetrachloroethane   | .50                  | U    |
| 96-18-4   | 1,2,3-Trichloropropane      | .50                  | U    |
| 103-65-1  | n-Propylbenzene             | .50                  | U    |
| 95-49-8   | 2-Chlorotoluene             | .50                  | U    |
| 106-43-4  | 4-Chlorotoluene             | .50                  | U    |
| 108-67-8  | 1,3,5-Trimethylbenzene      | .50                  | U    |
| 98-06-6   | tert-Butylbenzene           | .50                  | U    |
| 95-63-6   | 1,2,4-Trimethylbenzene      | .50                  | U    |
| 135-98-8  | sec-Butylbenzene            | .50                  | U    |
| 541-73-1  | 1,3-Dichlorobenzene         | .50                  | U    |
| 99-87-6   | 4-Isopropyltoluene          | .50                  | U    |
| 106-46-7  | 1,4-Dichlorobenzene         | .50                  | U    |
| 95-50-1   | 1,2-Dichlorobenzene         | .50                  | U    |
| 104-51-8  | n-Butylbenzene              | .50                  | U    |
| 96-12-8   | 1,2-Dibromo-3-chloropropane | .50                  | U    |
| 120-82-1  | 1,2,4-Trichlorobenzene      | .50                  | U    |
| 87-68-3   | Hexachlorobutadiene         | .50                  | U    |
| 91-20-3   | Naphthalene                 | .50                  | U    |
| 87-61-6   | 1,2,3-Trichlorobenzene      | .50                  | U    |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

186

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#: \_\_\_\_\_

NJDEPMW#: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8683.D

Level: (low/med) LOW

Date Received: NA

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

Concentration Units:

(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc. | Q |
|------------|---------------|----|------------|---|
| 1.         | NONE FOUND    |    |            |   |
| 2.         |               |    |            |   |
| 3.         |               |    |            |   |
| 4.         |               |    |            |   |
| 5.         |               |    |            |   |
| 6.         |               |    |            |   |
| 7.         |               |    |            |   |
| 8.         |               |    |            |   |
| 9.         |               |    |            |   |
| 10.        |               |    |            |   |
| 11.        |               |    |            |   |
| 12.        |               |    |            |   |
| 13.        |               |    |            |   |
| 14.        |               |    |            |   |
| 15.        |               |    |            |   |
| 16.        |               |    |            |   |
| 17.        |               |    |            |   |
| 18.        |               |    |            |   |
| 19.        |               |    |            |   |
| 20.        |               |    |            |   |
| 21.        |               |    |            |   |
| 22.        |               |    |            |   |
| 23.        |               |    |            |   |
| 24.        |               |    |            |   |
| 25.        |               |    |            |   |
| 26.        |               |    |            |   |
| 27.        |               |    |            |   |
| 28.        |               |    |            |   |
| 29.        |               |    |            |   |
| 30.        |               |    |            |   |

## Quantitation Report

Data File : d:\hpchem\1\data\c8683.d  
Acq On : 27 Jun 95 5:57 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 28 9:48 1995

Vial: 10 187  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

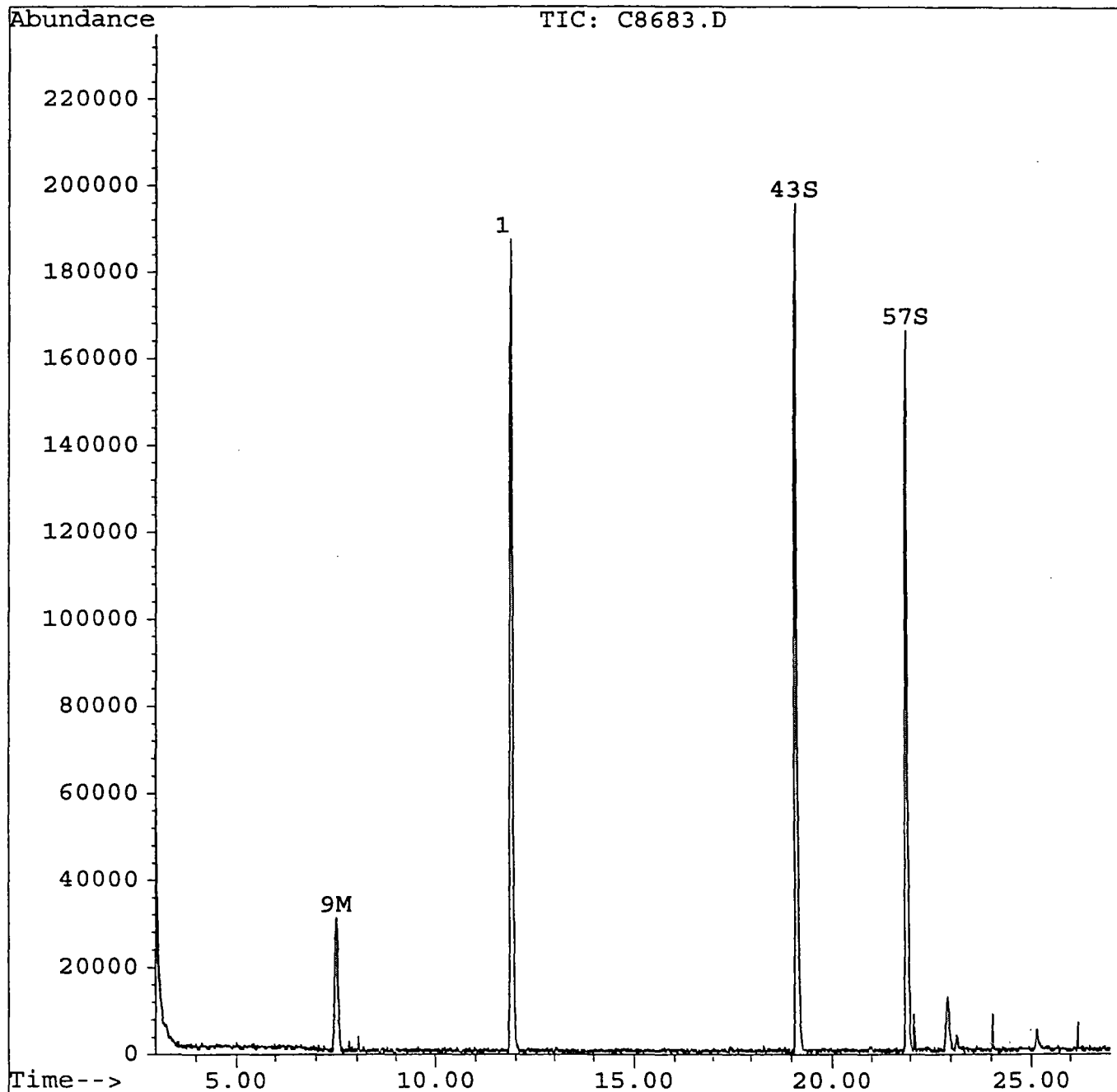
Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc | Units | Dev(Min)  |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene            | 11.90 | 96   | 390703   | 5.00 | ug/L  | 0.00      |
|                             |       |      |          |      |       | %Recovery |
| System Monitoring Compounds |       |      |          |      |       |           |
| 43) 4-Bromofluorobenzene    | 19.14 | 95   | 192203   | 5.27 | ug/L  | 105.34%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 107530   | 5.01 | ug/L  | 100.14%   |
|                             |       |      |          |      |       | Qvalue    |
| Target Compounds            |       |      |          |      |       |           |
| 9) Methylene chloride       | 7.48  | 84   | 43951    | 2.07 | ug/L  | 88        |

Data File : d:\hpchem\1\data\c8683.d  
Acq On : 27 Jun 95 5:57 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Jun 28 9:48 1995

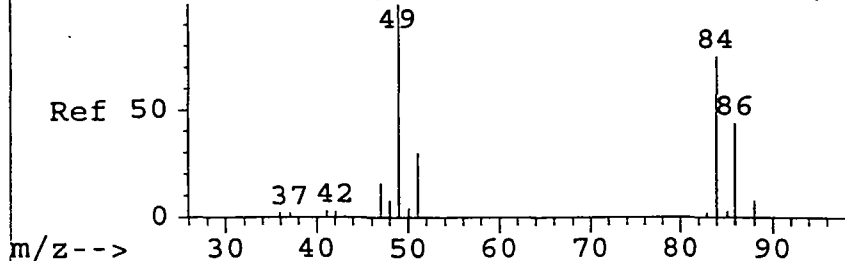
Vial: 10  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue Jun 27 10:34:27 1995  
Response via : Multiple Level Calibration

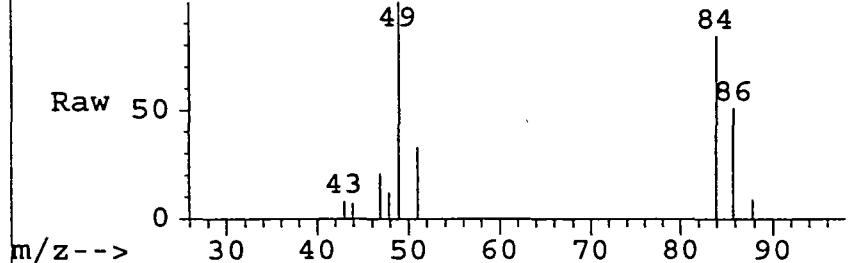




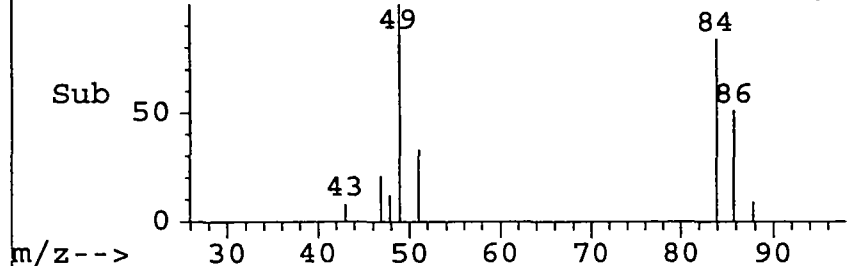
Abundance Scan 418 (7.345 min): C5082.D (-, \*



Abundance Scan 432 (7.484 min): C8683.D (\*)



Abundance Scan 432 (7.484 min): C8683.D (-, \*



#9

Methylene chloride

189

Concen: 2.07 ug/L

RT: 7.48 min Scan# 432

Delta R.T. 0.01 min

Lab File: c8683.d

Acq: 27 Jun 95 5:57 pm

Tgt Ion:84 Resp: 43951

Ion Ratio Lower Upper

84 100

86 60.9 45.6 85.6

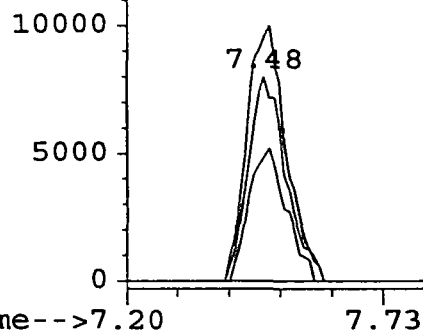
49 119.6 117.2 157.2

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.



Library Search Compound Report

190

Data File : d:\hpchem\1\data\c8683.d  
Acq On : 27 Jun 95 5:57 pm  
Sample : METHOD BLANK  
Misc : 25 ML

Vial: 10  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Initial Calibration

191

Non-Spiked Sample: C8628.D

Spike  
SampleSpike  
Duplicate Sample

|                              |                    |
|------------------------------|--------------------|
| File ID : C8629.D            | C8630.D            |
| Sample : 9526431 MS          | 9526431 MSD        |
| Acq Time: 21 Jun 95 10:23 pm | 21 Jun 95 10:57 pm |

| Compound             | Sample Conc | Spike Added | Spike Res | Dup Res | Spike %Rec | Dup %Rec | RPD | QC Limits RPD | Limits % Rec |
|----------------------|-------------|-------------|-----------|---------|------------|----------|-----|---------------|--------------|
| Dichlorodifluorometh | 0.1         | 10          | 9         | 9       | 87         | 88       | 1   | 25            | 80-120       |
| Chloromethane        | 0.0         | 10          | 10        | 10      | 101        | 100      | 0   | 25            | 80-120       |
| Vinyl chloride       | 0.0         | 10          | 10        | 10      | 102        | 103      | 1   | 25            | 80-120       |
| Bromomethane         | 0.0         | 10          | 11        | 11      | 108        | 109      | 1   | 25            | 80-120       |
| Chloroethane         | 0.0         | 10          | 11        | 12      | 114        | 115      | 1   | 25            | 80-120       |
| Trichlorofluorometha | 0.0         | 10          | 10        | 11      | 104        | 105      | 1   | 25            | 80-120       |
| 1,1-Dichloroethene   | 0.0         | 10          | 10        | 10      | 100        | 100      | 1   | 25            | 80-120       |
| Methylene chloride   | 2.1         | 10          | 10        | 9       | 77#        | 73#      | 6   | 25            | 80-120       |
| trans-1,2-Dichloroet | 0.0         | 10          | 10        | 10      | 99         | 102      | 4   | 25            | 80-120       |
| 1,1-Dichloroethane   | 0.8         | 10          | 12        | 12      | 108        | 109      | 1   | 25            | 80-120       |
| 2,2-Dichloropropane  | 0.0         | 10          | 9         | 9       | 89         | 89       | 1   | 25            | 80-120       |
| cis-1,2-Dichloroethe | 0.0         | 10          | 11        | 10      | 103        | 101      | 2   | 25            | 80-120       |
| Bromochloromethane   | 0.0         | 10          | 10        | 10      | 96         | 98       | 2   | 25            | 80-120       |
| Chloroform           | 0.0         | 10          | 10        | 11      | 104        | 105      | 1   | 25            | 80-120       |
| 1,1,1-Trichloroethan | 0.0         | 10          | 10        | 10      | 103        | 105      | 1   | 25            | 80-120       |
| Carbon tetrachloride | 0.0         | 10          | 10        | 10      | 100        | 100      | 0   | 25            | 80-120       |
| 1,1-Dichloropropene  | 0.0         | 10          | 10        | 11      | 102        | 107      | 5   | 25            | 80-120       |
| Benzene              | 0.0         | 10          | 10        | 10      | 103        | 103      | 0   | 25            | 80-120       |
| 1,2-Dichloroethane   | 0.0         | 10          | 10        | 11      | 103        | 105      | 2   | 25            | 80-120       |
| Trichloroethene      | 1.0         | 10          | 11        | 11      | 98         | 101      | 2   | 25            | 80-120       |
| 1,2-Dichloropropane  | 0.0         | 10          | 11        | 11      | 108        | 107      | 0   | 25            | 80-120       |
| Dibromomethane       | 0.0         | 10          | 10        | 10      | 103        | 103      | 0   | 25            | 80-120       |
| Bromodichloromethane | 0.0         | 10          | 10        | 10      | 103        | 103      | 0   | 25            | 80-120       |
| cis-1,3-Dichloroprop | 0.0         | 10          | 10        | 10      | 100        | 100      | 0   | 25            | 80-120       |
| Toluene              | 0.0         | 10          | 10        | 10      | 99         | 102      | 4   | 25            | 80-120       |
| trans-1,3-Dichloropr | 0.0         | 10          | 10        | 10      | 97         | 101      | 4   | 25            | 80-120       |
| 1,1,2-Trichloroethan | 0.0         | 10          | 10        | 10      | 103        | 101      | 1   | 25            | 80-120       |
| Tetrachloroethene    | 1.1         | 10          | 11        | 11      | 96         | 98       | 2   | 25            | 80-120       |
| 1,3-Dichloropropane  | 0.0         | 10          | 10        | 10      | 102        | 102      | 0   | 25            | 80-120       |
| Dibromochloromethane | 0.0         | 10          | 9         | 10      | 94         | 97       | 3   | 25            | 80-120       |
| 1,2-Dibromomethane   | 0.0         | 10          | 10        | 10      | 99         | 99       | 0   | 25            | 80-120       |
| Chlorobenzene        | 0.0         | 10          | 10        | 10      | 100        | 100      | 0   | 25            | 80-120       |
| 1,1,1,2-Tetrachloroe | 0.0         | 10          | 10        | 10      | 97         | 97       | 0   | 25            | 80-120       |
| Ethylbenzene         | 0.0         | 10          | 10        | 10      | 98         | 103      | 5   | 25            | 80-120       |
| Xylene (para & meta) | 0.0         | 20          | 18        | 20      | 88         | 98       | 11  | 25            | 80-120       |
| Xylene (Ortho)       | 0.0         | 10          | 9         | 10      | 89         | 99       | 11  | 25            | 80-120       |
| Styrene              | 0.0         | 10          | 9         | 9       | 87         | 95       | 9   | 25            | 80-120       |
| Bromoform            | 0.0         | 10          | 9         | 9       | 90         | 93       | 3   | 25            | 80-120       |
| Isopropylbenzene     | 0.0         | 10          | 10        | 10      | 97         | 100      | 3   | 25            | 80-120       |
| Bromobenzene         | 0.0         | 10          | 10        | 10      | 97         | 97       | 0   | 25            | 80-120       |
| 1,1,2,2-Tetrachloroe | 0.0         | 10          | 12        | 11      | 116        | 114      | 2   | 25            | 80-120       |
| 1,2,3-Trichloropropa | 0.0         | 10          | 10        | 9       | 103        | 93       | 10  | 25            | 80-120       |
| n-Propylbenzene      | 0.0         | 10          | 10        | 10      | 99         | 103      | 4   | 25            | 80-120       |

|                      |     |    |    |    |     |     |    |    |        |
|----------------------|-----|----|----|----|-----|-----|----|----|--------|
| 2-Chlorotoluene      | 0.0 | 10 | 11 | 11 | 108 | 108 | 1  | 25 | 80-120 |
| 1-Chlorotoluene      | 0.0 | 10 | 10 | 10 | 100 | 102 | 2  | 25 | 80-120 |
| 1,3,5-Trimethylbenze | 0.0 | 10 | 8  | 10 | 90  | 95  | 5  | 25 | 80-120 |
| tert-Butylbenzene    | 0.0 | 10 | 10 | 10 | 100 | 100 | 0  | 25 | 80-120 |
| 1,2,4-Trimethylbenze | 0.0 | 10 | 9  | 10 | 87  | 99  | 13 | 25 | 80-120 |
| sec-Butylbenzene     | 0.0 | 10 | 10 | 10 | 98  | 99  | 1  | 25 | 80-120 |
| 1,3-Dichlorobenzene  | 0.0 | 10 | 10 | 10 | 97  | 97  | 0  | 25 | 80-120 |
| 4-Isopropyltoluene   | 0.0 | 10 | 9  | 10 | 89  | 97  | 9  | 25 | 80-120 |
| 1,4-Dichlorobenzene  | 0.0 | 10 | 10 | 10 | 96  | 97  | 1  | 25 | 80-120 |
| 1,2-Dichlorobenzene  | 0.0 | 10 | 10 | 10 | 98  | 99  | 2  | 25 | 80-120 |
| n-Butylbenzene       | 0.0 | 10 | 10 | 10 | 99  | 101 | 2  | 25 | 80-120 |
| 1,2-Dibromo-3-chloro | 0.0 | 10 | 10 | 10 | 97  | 100 | 2  | 25 | 80-120 |
| 1,2,4-Trichlorobenze | 0.0 | 10 | 9  | 9  | 90  | 90  | 0  | 25 | 80-120 |
| Hexachlorobutadiene  | 0.0 | 10 | 9  | 9  | 95  | 94  | 1  | 25 | 80-120 |
| Naphthalene          | 0.0 | 10 | 9  | 10 | 91  | 95  | 4  | 25 | 80-120 |
| 1,2,3-Trichlorobenze | 0.0 | 10 | 9  | 9  | 93  | 92  | 2  | 25 | 80-120 |

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VOA524.M

Thu Jun 22 15:23:46 1995

VOA

Data File : d:\hpchem\1\data\c8629.d  
 Acq On : 21 Jun 95 10:23 pm  
 Sample : 9526431 MS  
 Misc : 25 ML  
 Quant Time: Jun 22 15:26 1995

Vial: 13  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|-------|------|----------|------|-------|----------|
| 1) Fluorobenzene   | 11.91 | 96   | 724230   | 5.00 | ug/L  | 0.07     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.15 | 95   | 363199   | 5.03 | ug/L  | 100.54%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 166204   | 5.04 | ug/L  | 100.73%   |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 507706   | 8.84  | ug/L   | 95     |
| 3) Chloromethane              | 3.72  | 50   | 341144   | 10.09 | ug/L   | 98     |
| 4) Vinyl chloride             | 3.94  | 62   | 388786   | 10.21 | ug/L   | 98     |
| 5) Bromomethane               | 4.59  | 94   | 276878   | 10.75 | ug/L   | 99     |
| 6) Chloroethane               | 4.84  | 64   | 254197   | 11.39 | ug/L   | 94     |
| 7) Trichlorofluoromethane     | 5.44  | 101  | 889262   | 10.45 | ug/L   | 97     |
| 8) 1,1-Dichloroethene         | 6.52  | 96   | 375620   | 10.05 | ug/L # | 86     |
| 9) Methylene chloride         | 7.49  | 84   | 388425   | 9.79  | ug/L   | 94     |
| 10) trans-1,2-Dichloroethene  | 8.04  | 96   | 390408   | 9.89  | ug/L   | 91     |
| 12) 1,1-Dichloroethane        | 8.84  | 63   | 911424   | 11.54 | ug/L   | 97     |
| 13) 2,2-Dichloropropane       | 9.91  | 77   | 692646   | 8.95  | ug/L   | 100    |
| 14) cis-1,2-Dichloroethene    | 9.91  | 96   | 393804   | 10.58 | ug/L   | 96     |
| 16) Bromochloromethane        | 10.32 | 128  | 125174   | 9.60  | ug/L # | 89     |
| 17) Chloroform                | 10.48 | 83   | 768687   | 10.37 | ug/L   | 99     |
| 18) 1,1,1-Trichloroethane     | 10.80 | 97   | 848337   | 10.34 | ug/L   | 97     |
| 19) Carbon tetrachloride      | 11.11 | 117  | 761767   | 10.00 | ug/L   | 99     |
| 20) 1,1-Dichloropropene       | 11.10 | 75   | 727926   | 10.16 | ug/L   | 99     |
| 21) Benzene                   | 11.44 | 78   | 1301213  | 10.32 | ug/L   | 97     |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 322398   | 10.42 | ug/L   | 97     |
| 23) Trichloroethene           | 12.55 | 95   | 608503   | 10.88 | ug/L   | 93     |
| 24) 1,2-Dichloropropane       | 12.90 | 63   | 443934   | 10.76 | ug/L   | 99     |
| 25) Dibromomethane            | 13.10 | 93   | 172354   | 10.30 | ug/L   | 96     |
| 26) Bromodichloromethane      | 13.36 | 83   | 587880   | 10.25 | ug/L   | 96     |
| 27) cis-1,3-Dichloropropene   | 14.12 | 75   | 493938   | 9.96  | ug/L   | 97     |
| 28) Toluene                   | 14.71 | 92   | 889375   | 9.93  | ug/L   | 99     |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 331412   | 9.68  | ug/L   | 98     |
| 30) 1,1,2-Trichloroethane     | 15.36 | 83   | 164536   | 10.29 | ug/L   | 91     |
| 31) Tetrachloroethene         | 15.66 | 166  | 596030   | 10.62 | ug/L   | 96     |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 324387   | 10.23 | ug/L   | 97     |
| 33) Dibromochloromethane      | 16.06 | 129  | 292274   | 9.39  | ug/L   | 98     |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 217921   | 9.87  | ug/L   | 97     |
| 35) Chlorobenzene             | 17.13 | 112  | 937208   | 10.04 | ug/L   | 98     |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 358271   | 9.67  | ug/L   | 95     |
| 37) Ethylbenzene              | 17.31 | 91   | 1845979  | 9.79  | ug/L   | 96     |
| 38) Xylene (para & meta)      | 17.53 | 106  | 1192303  | 17.60 | ug/L   | 92     |
| 39) Xylene (Ortho)            | 18.23 | 106  | 533612   | 8.90  | ug/L # | 88     |
| 40) Styrene                   | 18.24 | 104  | 806023   | 8.68  | ug/L m | 95     |

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

Data File : d:\hpchem\1\data\c8629.d  
Acq On : 21 Jun 95 10:23 pm  
Sample : 9526431 MS  
Misc : 25 ML  
Quant Time: Jun 22 15:26 1995

Vial: 13  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

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Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 138006   | 9.04  | ug/L   | 90     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1862329  | 9.66  | ug/L m | 0      |
| 44) Bromobenzene               | 19.43 | 156  | 337784   | 9.72  | ug/L # | 89     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.36 | 83   | 197805   | 11.58 | ug/L   | 95     |
| 46) 1,2,3-Trichloropropane     | 19.45 | 75   | 214022   | 10.32 | ug/L # | 78     |
| 47) n-Propylbenzene            | 19.62 | 91   | 2472810  | 9.86  | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.78 | 91   | 1508455  | 10.84 | ug/L   | 96     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1649364  | 9.99  | ug/L m | 85     |
| 50) 1,3,5-Trimethylbenzene     | 19.94 | 105  | 1367274  | 8.57  | ug/L m | 99     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 1667250  | 10.08 | ug/L   | 99     |
| 52) 1,2,4-Trimethylbenzene     | 20.62 | 105  | 1272782  | 8.71  | ug/L   | 100    |
| 53) sec-Butylbenzene           | 20.93 | 105  | 2478805  | 10.11 | ug/L   | 99     |
| 54) 1,3-Dichlorobenzene        | 21.13 | 146  | 684058   | 9.65  | ug/L   | 98     |
| 55) 4-Isopropyltoluene         | 21.19 | 119  | 1627495  | 8.89  | ug/L   | 98     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 677512   | 9.64  | ug/L   | 89     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 521231   | 9.87  | ug/L   | 98     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1944083  | 9.91  | ug/L   | 100    |
| 60) 1,2-Dibromo-3-chloropropan | 23.37 | 75   | 42212    | 9.73  | ug/L   | 90     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 349185   | 9.00  | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 444252   | 9.49  | ug/L   | 100    |
| 63) Naphthalene                | 25.38 | 128  | 307134   | 9.14  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 252836   | 9.34  | ug/L   | 98     |
| 65) Methyl-tert butyl ether    | 8.09  | 73   | 552420   | 13.06 | ug/L   | 97     |
| 66) tert-Butyl Alcohol         | 7.81  | 59   | 17145    | 26.44 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

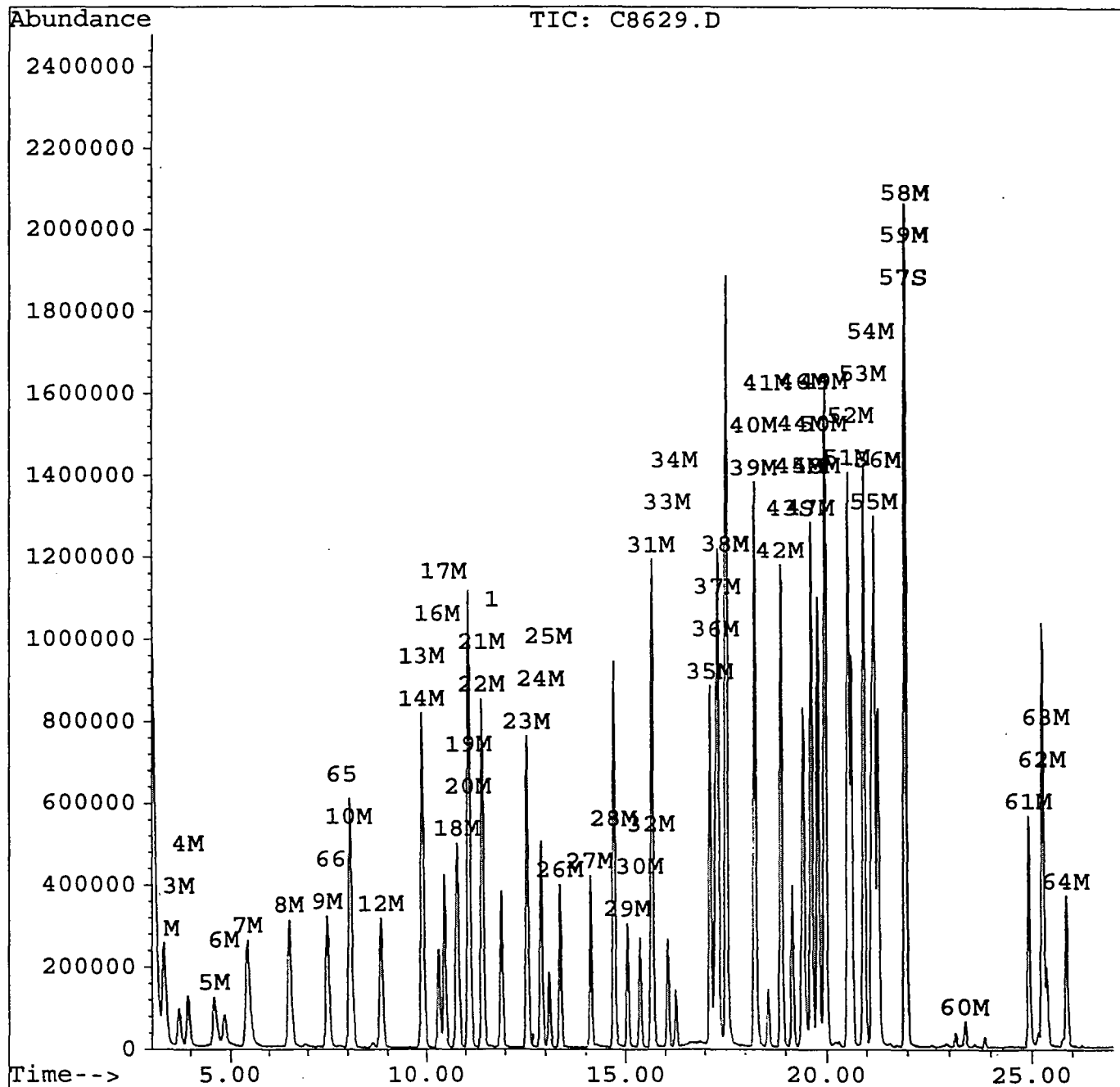
## Quantitation Report

Data File : d:\hpchem\1\data\c8629.d  
Acq On : 21 Jun 95 10:23 pm  
Sample : 9526431 MS  
Misc : 25 ML  
Quant Time: Jun 22 15:26 1995

Vial: 13  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

195

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8630.d  
 Acq On : 21 Jun 95 10:57 pm  
 Sample : 9526431 MSD  
 Misc : 25 ML  
 Quant Time: Jun 22 15:19 1995

Vial: 14  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Tue May 30 13:15:19 1995  
 Response via : Multiple Level Calibration

| Internal Standards | R.T.  | QIon | Response | Conc | Units | Dev (Min) |
|--------------------|-------|------|----------|------|-------|-----------|
| 1) Fluorobenzene   | 11.91 | 96   | 717343   | 5.00 | ug/L  | 0.07      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc | Units | %Recovery |
|-----------------------------|-------|------|----------|------|-------|-----------|
| 43) 4-Bromofluorobenzene    | 19.15 | 95   | 358737   | 5.01 | ug/L  | 100.26%   |
| 57) 1,2-Dichlorobenzene-d4  | 21.93 | 152  | 161994   | 4.96 | ug/L  | 99.12%    |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 2) Dichlorodifluoromethane    | 3.34  | 85   | 508838   | 8.95  | ug/L  | 99     |
| 3) Chloromethane              | 3.70  | 50   | 336876   | 10.06 | ug/L  | 96     |
| 4) Vinyl chloride             | 3.94  | 62   | 390419   | 10.35 | ug/L  | 98     |
| 5) Bromomethane               | 4.60  | 94   | 277061   | 10.86 | ug/L  | 96     |
| 6) Chloroethane               | 4.83  | 64   | 255023   | 11.53 | ug/L  | 94     |
| 7) Trichlorofluoromethane     | 5.42  | 101  | 888335   | 10.54 | ug/L  | 99     |
| 8) 1,1-Dichloroethene         | 6.52  | 96   | 368492   | 9.95  | ug/L  | 88     |
| 9) Methylene chloride         | 7.50  | 84   | 367763   | 9.36  | ug/L  | 100    |
| 10) trans-1,2-Dichloroethene  | 8.05  | 96   | 400532   | 10.24 | ug/L  | 90     |
| 12) 1,1-Dichloroethane        | 8.84  | 63   | 914463   | 11.69 | ug/L  | 97     |
| 13) 2,2-Dichloropropane       | 9.90  | 77   | 681923   | 8.89  | ug/L  | 98     |
| 14) cis-1,2-Dichloroethene    | 9.90  | 96   | 383613   | 10.40 | ug/L  | 98     |
| 16) Bromochloromethane        | 10.31 | 128  | 126363   | 9.78  | ug/L  | # 89   |
| 17) Chloroform                | 10.47 | 83   | 772878   | 10.53 | ug/L  | 98     |
| 18) 1,1,1-Trichloroethane     | 10.80 | 97   | 849134   | 10.45 | ug/L  | 96     |
| 19) Carbon tetrachloride      | 11.11 | 117  | 754063   | 9.99  | ug/L  | 98     |
| 20) 1,1-Dichloropropene       | 11.10 | 75   | 757429   | 10.67 | ug/L  | 98     |
| 21) Benzene                   | 11.44 | 78   | 1290261  | 10.33 | ug/L  | 98     |
| 22) 1,2-Dichloroethane        | 11.44 | 62   | 324254   | 10.58 | ug/L  | 96     |
| 23) Trichloroethene           | 12.55 | 95   | 615535   | 11.12 | ug/L  | 97     |
| 24) 1,2-Dichloropropane       | 12.90 | 63   | 438654   | 10.73 | ug/L  | 100    |
| 25) Dibromomethane            | 13.10 | 93   | 171417   | 10.35 | ug/L  | 93     |
| 26) Bromodichloromethane      | 13.36 | 83   | 583692   | 10.27 | ug/L  | 98     |
| 27) cis-1,3-Dichloropropene   | 14.13 | 75   | 489464   | 9.97  | ug/L  | 99     |
| 28) Toluene                   | 14.71 | 92   | 912224   | 10.28 | ug/L  | 96     |
| 29) trans-1,3-Dichloropropene | 15.04 | 75   | 341025   | 10.06 | ug/L  | 99     |
| 30) 1,1,2-Trichloroethane     | 15.36 | 83   | 160629   | 10.14 | ug/L  | 95     |
| 31) Tetrachloroethene         | 15.67 | 166  | 603739   | 10.86 | ug/L  | 100    |
| 32) 1,3-Dichloropropane       | 15.64 | 76   | 320235   | 10.20 | ug/L  | 100    |
| 33) Dibromochloromethane      | 16.06 | 129  | 297580   | 9.65  | ug/L  | 99     |
| 34) 1,2-Dibromomethane        | 16.25 | 107  | 216314   | 9.90  | ug/L  | 99     |
| 35) Chlorobenzene             | 17.13 | 112  | 924979   | 10.01 | ug/L  | 96     |
| 36) 1,1,1,2-Tetrachloroethane | 17.26 | 131  | 354121   | 9.65  | ug/L  | 98     |
| 37) Ethylbenzene              | 17.32 | 91   | 1928537  | 10.32 | ug/L  | 98     |
| 38) Xylene (para & meta)      | 17.53 | 106  | 1316729  | 19.63 | ug/L  | 90     |
| 39) Xylene (Ortho)            | 18.23 | 106  | 589921   | 9.94  | ug/L  | 94     |
| 40) Styrene                   | 18.24 | 104  | 869540   | 9.45  | ug/L  | 96     |

(#) = qualifier out of range (m) = manual integration



## Quantitation Report

Data File : d:\hpcchem\1\data\c8630.d  
Acq On : 21 Jun 95 10:57 pm  
Sample : 9526431 MSD  
Misc : 25 ML  
Quant Time: Jun 22 15:19 1995

Vial: 14 197  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration

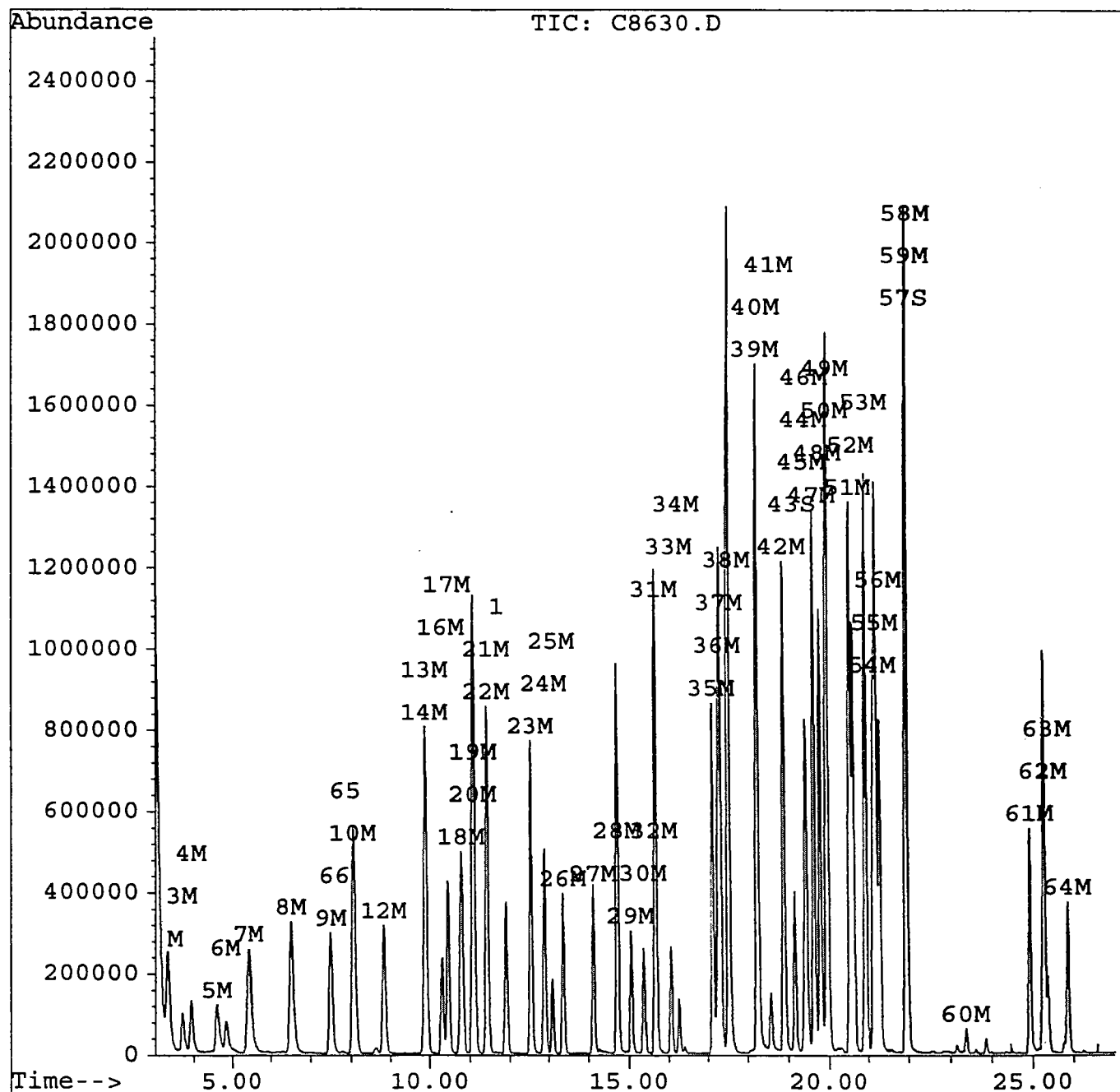
| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 41) Bromoform                  | 18.56 | 173  | 140370   | 9.28  | ug/L   | 93     |
| 42) Isopropylbenzene           | 18.88 | 105  | 1900648  | 9.96  | ug/L   | 90     |
| 44) Bromobenzene               | 19.43 | 156  | 335219   | 9.74  | ug/L # | 84     |
| 45) 1,1,2,2-Tetrachloroethane  | 19.37 | 83   | 192628   | 11.39 | ug/L   | 92     |
| 46) 1,2,3-Trichloropropane     | 19.44 | 75   | 191679   | 9.33  | ug/L # | 14     |
| 47) n-Propylbenzene            | 19.62 | 91   | 2545491  | 10.25 | ug/L   | 99     |
| 48) 2-Chlorotoluene            | 19.78 | 91   | 1481385  | 10.75 | ug/L   | 97     |
| 49) 4-Chlorotoluene            | 19.96 | 91   | 1665190  | 10.18 | ug/L m | 87     |
| 50) 1,3,5-Trimethylbenzene     | 19.94 | 105  | 1501456  | 9.50  | ug/L   | 99     |
| 51) tert-Butylbenzene          | 20.53 | 119  | 1656874  | 10.11 | ug/L   | 96     |
| 52) 1,2,4-Trimethylbenzene     | 20.61 | 105  | 1430110  | 9.88  | ug/L   | 100    |
| 53) sec-Butylbenzene           | 20.93 | 105  | 2490009  | 10.25 | ug/L   | 97     |
| 54) 1,3-Dichlorobenzene        | 21.14 | 146  | 679634   | 9.68  | ug/L   | 97     |
| 55) 4-Isopropyltoluene         | 21.19 | 119  | 1772010  | 9.77  | ug/L   | 97     |
| 56) 1,4-Dichlorobenzene        | 21.29 | 146  | 678563   | 9.75  | ug/L   | 93     |
| 58) 1,2-Dichlorobenzene        | 21.96 | 146  | 525641   | 10.05 | ug/L   | 98     |
| 59) n-Butylbenzene             | 21.94 | 91   | 1967170  | 10.12 | ug/L   | 98     |
| 60) 1,2-Dibromo-3-chloropropan | 23.37 | 75   | 42772    | 9.96  | ug/L # | 73     |
| 61) 1,2,4-Trichlorobenzene     | 24.93 | 180  | 345906   | 9.00  | ug/L   | 97     |
| 62) Hexachlorobutadiene        | 25.27 | 225  | 435444   | 9.39  | ug/L   | 99     |
| 63) Naphthalene                | 25.38 | 128  | 318132   | 9.56  | ug/L   | 100    |
| 64) 1,2,3-Trichlorobenzene     | 25.86 | 180  | 246700   | 9.20  | ug/L   | 97     |
| 65) Methyl-tert butyl ether    | 8.07  | 73   | 536946   | 12.81 | ug/L   | 95     |
| 66) tert-Butyl Alcohol         | 7.81  | 59   | 16303    | 25.38 | ug/L   | 100    |

(#) = qualifier out of range (m) = manual integration

Data File : d:\hpchem\1\data\c8630.d  
Acq On : 21 Jun 95 10:57 pm  
Sample : 9526431 MSD  
Misc : 25 ML  
Quant Time: Jun 22 15:19 1995

Vial: 14  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Tue May 30 13:15:19 1995  
Response via : Multiple Level Calibration



EMSL

GC/MS SEMIVOLATILE DATA PACKAGE

Instrument ID: ABNA DFTPP Injection Time: 0914

2-Value is % mass 442

[illegible]

Data File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

Acq On : 30 May 95 9:14 am

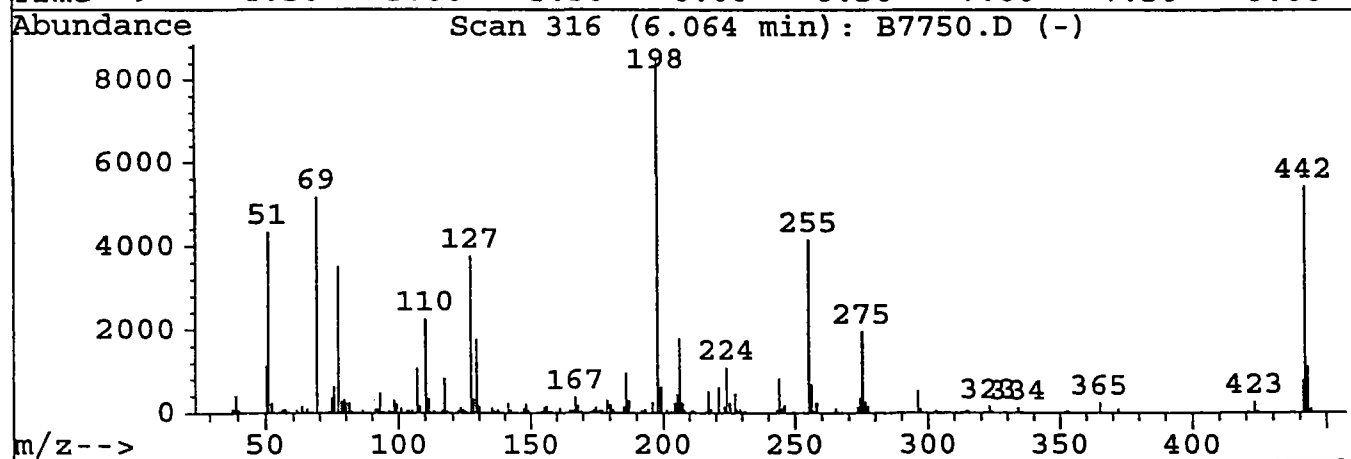
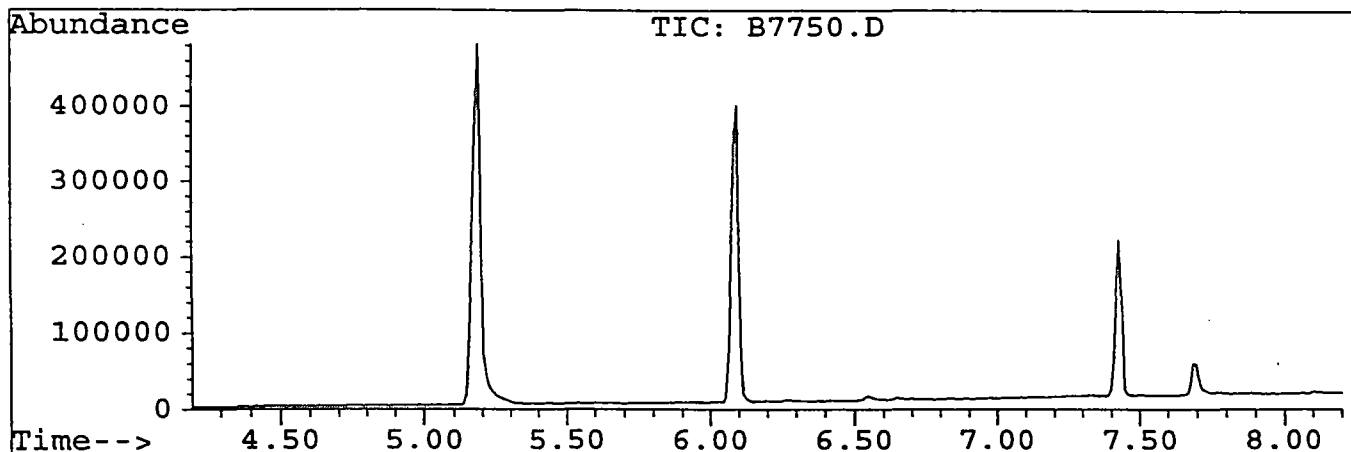
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 330

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 51.3      | 4339    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 61.1      | 5169    | PASS             |
| 70          | 69           | 0            | 2            | 0.6       | 29      | PASS             |
| 127         | 198          | 40           | 60           | 44.4      | 3758    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 8456    | PASS             |
| 199         | 198          | 5            | 9            | 7.5       | 631     | PASS             |
| 275         | 198          | 10           | 30           | 23.1      | 1951    | PASS             |
| 365         | 198          | 1            | 100          | 2.8       | 238     | PASS             |
| 441         | 443          | 0            | 100          | 71.3      | 788     | PASS             |
| 442         | 198          | 40           | 100          | 64.3      | 5436    | PASS             |
| 443         | 442          | 17           | 23           | 20.3      | 1105    | PASS             |

modified:subtracted

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 38.00 | 111    | 58.05 | 13     | 78.05 | 284    | 96.05  | 58     |
| 39.05 | 417    | 61.15 | 74     | 79.05 | 332    | 97.05  | 35     |
| 40.10 | 59     | 63.05 | 154    | 79.95 | 245    | 98.05  | 313    |
| 50.05 | 1128   | 64.05 | 37     | 81.05 | 252    | 99.05  | 224    |
| 51.00 | 4339   | 65.05 | 105    | 82.05 | 44     | 100.95 | 120    |
| 52.05 | 241    | 68.95 | 5169   | 83.10 | 16     | 103.15 | 68     |
| 53.00 | 10     | 70.05 | 29     | 86.15 | 75     | 103.95 | 87     |
| 54.05 | 4      | 73.05 | 43     | 91.05 | 88     | 105.05 | 85     |
| 55.05 | 32     | 74.05 | 376    | 91.95 | 98     | 107.05 | 1091   |
| 56.05 | 93     | 75.05 | 636    | 92.95 | 482    | 107.95 | 178    |
| 57.05 | 94     | 77.00 | 3509   | 94.05 | 48     | 110.05 | 2258   |

Scan 316 (6.064 min): B7750.D

modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 11.05  | 347    | 128.00 | 343    | 154.10 | 63     | 168.00 | 172    |
| 112.15 | 17     | 129.00 | 1776   | 155.00 | 140    | 169.10 | 54     |
| 113.05 | 65     | 130.00 | 152    | 156.00 | 177    | 173.00 | 40     |
| 116.15 | 81     | 135.00 | 123    | 157.10 | 46     | 173.90 | 77     |
| 117.05 | 837    | 136.00 | 50     | 157.80 | 35     | 175.00 | 147    |
| 118.05 | 55     | 137.10 | 72     | 158.00 | 32     | 176.10 | 56     |
| 121.90 | 87     | 141.00 | 242    | 160.00 | 52     | 177.10 | 85     |
| 123.00 | 132    | 142.00 | 80     | 161.10 | 108    | 179.00 | 311    |
| 124.00 | 82     | 147.00 | 121    | 165.00 | 75     | 180.10 | 207    |
| 124.90 | 49     | 148.00 | 213    | 166.20 | 66     | 181.10 | 81     |
| 127.00 | 3758   | 148.90 | 57     | 167.00 | 382    | 182.10 | 5      |

Scan 316 (6.064 min): B7750.D

modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 185.10 | 155    | 205.05 | 451    | 222.95 | 151    | 249.05 | 34     |
| 186.10 | 970    | 206.05 | 1785   | 224.05 | 1088   | 255.05 | 4157   |
| 187.10 | 295    | 207.05 | 238    | 225.05 | 239    | 256.05 | 688    |
| 192.00 | 75     | 207.95 | 66     | 227.05 | 470    | 256.95 | 53     |
| 193.10 | 96     | 210.25 | 50     | 227.95 | 86     | 257.95 | 257    |
| 196.00 | 270    | 211.05 | 79     | 229.05 | 93     | 265.05 | 108    |
| 198.00 | 8456   | 211.65 | 38     | 230.95 | 42     | 273.05 | 139    |
| 199.00 | 631    | 215.95 | 52     | 243.05 | 75     | 274.05 | 352    |
| 201.35 | 77     | 216.95 | 525    | 244.05 | 828    | 275.05 | 1951   |
| 202.85 | 45     | 217.95 | 89     | 245.05 | 118    | 276.05 | 266    |
| 204.05 | 257    | 220.95 | 629    | 246.05 | 185    | 277.05 | 157    |

Scan 316 (6.064 min): B7750.D

modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z | abund. | m/z | abund. |
|--------|--------|--------|--------|-----|--------|-----|--------|
| 293.00 | 31     | 364.95 | 238    |     |        |     |        |
| 296.00 | 527    | 372.05 | 89     |     |        |     |        |
| 297.00 | 89     | 403.05 | 44     |     |        |     |        |
| 303.00 | 67     | 420.95 | 40     |     |        |     |        |
| 314.00 | 27     | 423.05 | 267    |     |        |     |        |
| 314.90 | 61     | 424.05 | 52     |     |        |     |        |
| 323.10 | 148    | 441.10 | 788    |     |        |     |        |
| 324.10 | 39     | 442.00 | 5436   |     |        |     |        |
| 334.00 | 124    | 443.00 | 1105   |     |        |     |        |
| 352.10 | 49     | 444.10 | 101    |     |        |     |        |
| 353.10 | 51     |        |        |     |        |     |        |

Data File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

Acq On : 30 May 95 9:14 am

Operator: SCOTTV

203

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

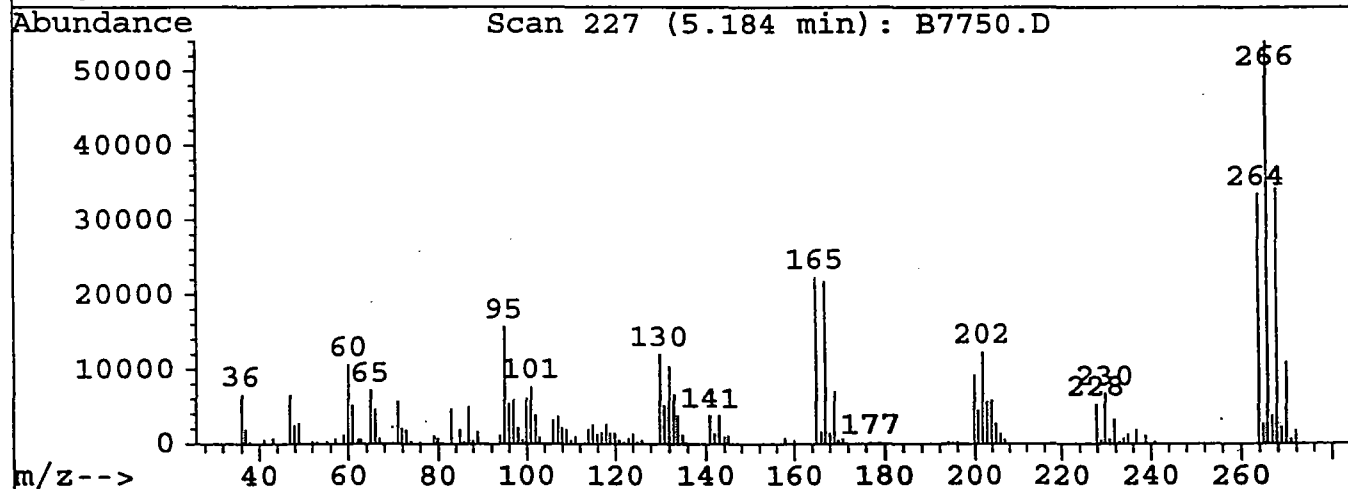
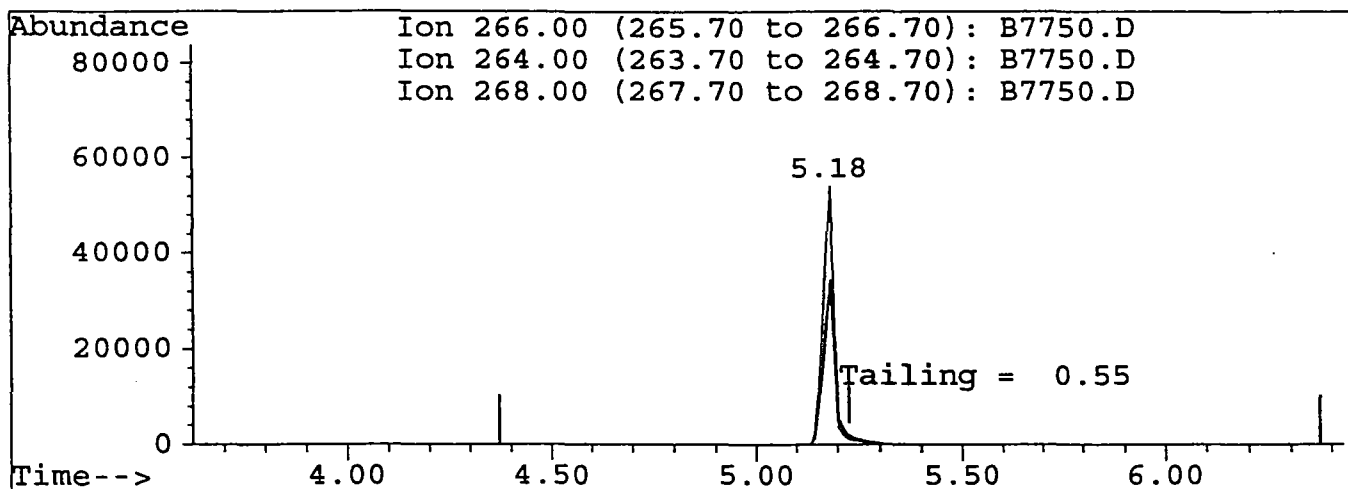
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



TIC: B7750.D

(1) Pentachlorophenol (CM)

5.18min 321.74ug/mL

response 106272

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 62.02 |
| 268.00 | 64.70 | 63.47 |
| 0.00   | 0.00  | 0.00  |

ata File : C:\HPCHEM\1\DATA2\B7750.D

Vial: 1

204

Acq On : 30 May 95 9:14 am

Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

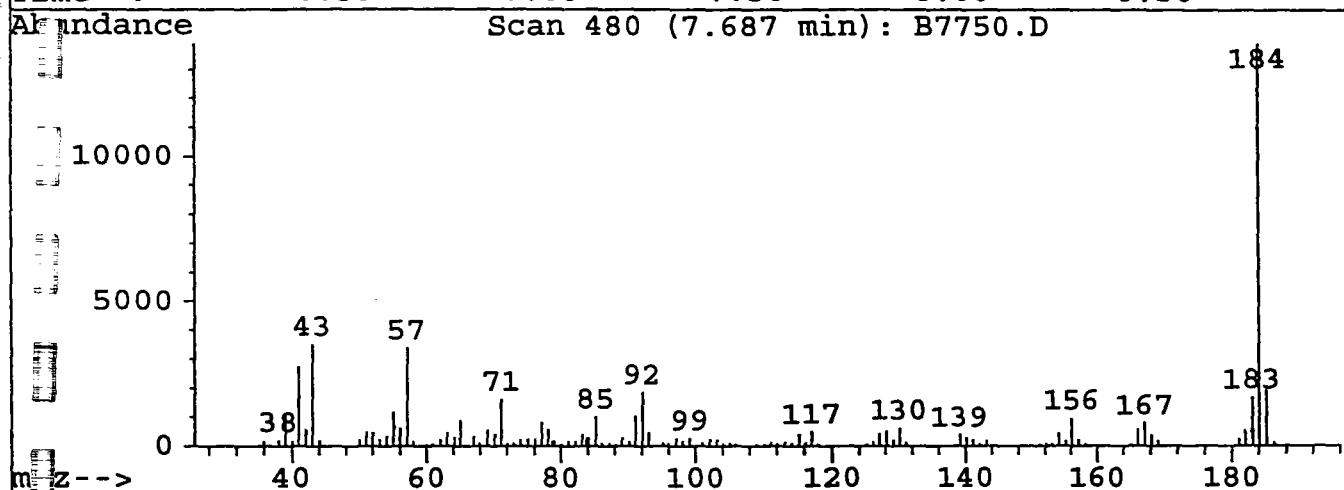
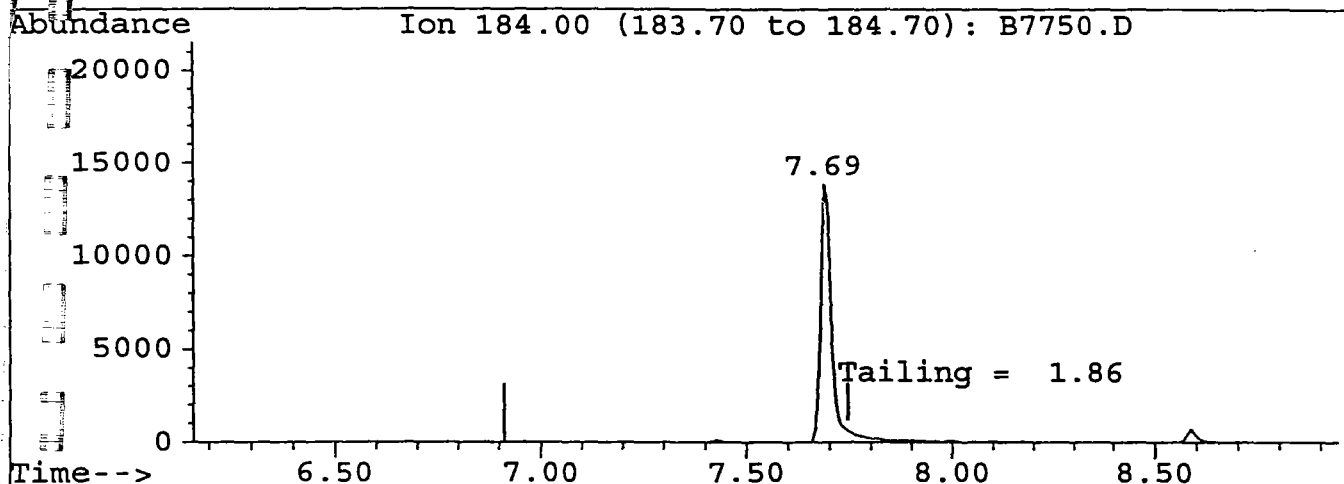
Quant Time: May 30 8:29 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



TIC: B7750.D

(2) Benzidine

7.69min 86.22ug/ml

response 26489

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |



Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 09:37:17 1995  
 Response via : Initial Calibration

## Calibration Files

160 =B7755.D 120 =B7754.D 80 =B7753.D  
 50 =B7752.D 20 =B7751.D

|        | Compound              | 160            | 120   | 80    | 50    | 20    | Avg   | %RSD  |
|--------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|
| 1) I   | 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |
| 2) S   | 2-Fluorophenol        | 1.046          | 1.205 | 1.170 | 1.071 | 1.165 | 1.131 | 6.09  |
| 3) S   | Phenol-d5             | 1.808          | 2.019 | 1.924 | 1.724 | 1.888 | 1.873 | 6.00  |
| 4) M   | N-nitrosodimethylamin | 0.599          | 0.546 | 0.436 | 0.731 |       | 0.578 | 21.22 |
| 5) S   | Pyridine              | 0.424          | 0.364 | 0.429 | 0.496 |       | 0.428 | 12.65 |
| 6) CM  | Phenol                | 1.442          | 1.792 | 1.686 | 1.698 | 1.721 | 1.668 | 7.94  |
| 7) MT  | bis(2-Chloroethyl)eth | 1.893          | 2.082 | 2.104 | 2.042 | 2.008 | 2.026 | 4.10  |
| 8) M   | 2-Chlorophenol        | 1.138          | 1.284 | 1.307 | 1.245 | 1.372 | 1.269 | 6.83  |
| 9) MT  | 1,3-Dichlorobenzene   | 1.295          | 1.404 | 1.490 | 1.416 | 1.320 | 1.385 | 5.65  |
| 10) CM | 1,4-Dichlorobenzene   | 1.318          | 1.468 | 1.512 | 1.469 | 1.379 | 1.429 | 5.51  |
| 11) M  | 1,2-Dichlorobenzene   | 1.255          | 1.391 | 1.452 | 1.374 | 1.315 | 1.357 | 5.54  |
| 12) T  | 2-Methylphenol        | 1.109          | 1.268 | 1.262 | 1.164 | 1.220 | 1.204 | 5.61  |
| 13) M  | bis(2-chloroisopropyl | 1.886          | 1.860 | 1.988 | 1.730 | 1.878 | 1.868 | 4.92  |
| 14) T  | 4-Methylphenol        | 1.216          | 1.432 | 1.330 | 1.310 | 1.320 | 1.322 | 5.82  |
| 15) PM | N-Nitroso-Di-n-propyl | 1.289          | 1.444 | 1.471 | 1.267 | 1.257 | 1.346 | 7.68  |
| 16) M  | Hexachloroethane      | 0.691          | 0.756 | 0.792 | 0.747 | 0.701 | 0.737 | 5.65  |
| 17) I  | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |
| 18) S  | Nitrobenzene-d5       | 0.437          | 0.466 | 0.478 | 0.437 | 0.460 | 0.456 | 4.02  |
| 19) M  | Nitrobenzene          | 0.398          | 0.409 | 0.461 | 0.436 | 0.416 | 0.424 | 5.86  |
| 20) M  | Isophorone            | 0.776          | 0.850 | 0.875 | 0.817 | 1.149 | 0.893 | 16.52 |
| 21) MC | 2-Nitrophenol         | 0.189          | 0.225 | 0.225 | 0.200 | 0.213 | 0.210 | 7.50  |
| 22) M  | 2,4-Dimethylphenol    | 0.362          | 0.429 | 0.388 | 0.382 | 0.407 | 0.394 | 6.49  |
| 23) M  | bis(2-Chloroethoxy)me | 0.441          | 0.448 | 0.467 | 0.455 | 0.469 | 0.456 | 2.57  |
| 24) MC | 2,4-Dichlorophenol    | 0.271          | 0.299 | 0.307 | 0.292 | 0.322 | 0.298 | 6.39  |
| 25) M  | 1,2,4-Trichlorobenzen | 0.293          | 0.318 | 0.326 | 0.322 | 0.326 | 0.317 | 4.42  |
| 26) M  | Naphthalene           | 0.922          | 0.948 | 1.039 | 0.963 | 1.023 | 0.979 | 5.12  |
| 27) T  | 4-Chloroaniline       | 0.455          | 0.465 | 0.471 | 0.468 | 0.457 | 0.463 | 1.47  |
| 28) MC | Hexachlorobutadiene   | 0.175          | 0.186 | 0.189 | 0.186 | 0.190 | 0.185 | 3.26  |
| 29) MC | 4-Chloro-3-methylphen | 0.355          | 0.396 | 0.398 | 0.385 | 0.385 | 0.384 | 4.45  |
| 30) M  | 2-Chloronaphthalene   | 0.672          | 0.680 | 0.719 | 0.700 | 0.709 | 0.696 | 2.81  |
| 31) T  | 2-Methylnaphthalene   | 0.890          | 0.985 | 0.640 | 0.702 | 0.711 | 0.786 | 18.46 |
| 32) I  | Acenaphthene-d10      | -----ISTD----- |       |       |       |       |       |       |
| 33) P  | Hexachlorocyclopentad | 0.294          | 0.303 | 0.302 | 0.258 | 0.233 | 0.278 | 11.19 |
| 34) MC | 2,4,6-Trichlorophenol | 0.470          | 0.452 | 0.413 | 0.381 | 0.361 | 0.415 | 11.10 |
| 35) T  | 2,4,5-Trichlorophenol | 0.221          | 0.317 | 0.348 | 0.370 | 0.365 | 0.324 | 18.94 |
| 36) S  | 2-Fluorobiphenyl      | 1.163          | 1.254 | 1.230 | 1.178 | 1.174 | 1.200 | 3.30  |
| 37) T  | 2-Nitroaniline        | 0.527          | 0.566 | 0.592 | 0.578 | 0.483 | 0.549 | 8.04  |
| 38) M  | Dimethylphthalate     | 1.233          | 1.348 | 1.373 | 1.295 | 1.248 | 1.299 | 4.68  |
| 39) M  | Acenaphthylene        | 1.606          | 1.717 | 1.805 | 1.711 | 1.683 | 1.704 | 4.20  |
| 40) M  | 2,6-Dinitrotoluene    | 0.295          | 0.312 | 0.346 | 0.327 | 0.271 | 0.310 | 9.34  |
| 41) T  | 3-Nitroaniline        | 0.279          | 0.370 | 0.403 | 0.363 | 0.315 | 0.346 | 14.10 |

(#) = Out of Range  
 BNACLP.M

Wed May 31 10:06:54 1995

BNA

Page 1

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 09:37:17 1995  
 Response via : Initial Calibration

## Calibration Files

160 =B7755.D 120 =B7754.D 80 =B7753.D  
 50 =B7752.D 20 =B7751.D

|     | Compound                 | 160            | 120   | 80    | 50    | 20    | Avg    | %RSD  |
|-----|--------------------------|----------------|-------|-------|-------|-------|--------|-------|
| 42) | CM Acenaphthene          | 0.982          | 1.056 | 1.036 | 1.024 | 1.028 | 1.025  | 2.65  |
| 43) | MP 2,4-Dinitrophenol     | 0.189          | 0.213 | 0.198 | 0.155 | 0.107 | 0.172  | 24.56 |
| 44) | PM 4-Nitrophenol         | 0.151          | 0.178 | 0.188 | 0.168 | 0.142 | 0.166  | 11.52 |
| 45) | T Dibenzofuran           | 1.475          | 1.700 | 1.686 | 1.669 | 1.512 | 1.609  | 6.62  |
| 46) | M 2,4-Dinitrotoluene     | 1.132          | 1.243 | 1.193 | 1.143 | 1.125 | 1.167  | 4.29  |
| 47) | M Diethylphthalate       | 1.274          | 1.533 | 1.576 | 1.452 | 1.379 | 1.443  | 8.38  |
| 48) | M Fluorene               | 1.222          | 1.333 | 1.295 | 1.228 | 1.216 | 1.259  | 4.17  |
| 49) | M 4-Chlorophenyl-phenyl  | 0.554          | 0.608 | 0.613 | 0.591 | 0.615 | 0.596  | 4.25  |
| 50) | Phenanthrene-d10         | -----ISTD----- |       |       |       |       |        |       |
| 51) | T 4-Nitroaniline         | 0.131          | 0.151 | 0.160 | 0.214 | 0.175 | 0.166  | 18.75 |
| 52) | MC 4,6-Dinitro-2-methylp | 0.141          | 0.142 | 0.151 | 0.129 | 0.096 | 0.132  | 16.20 |
| 53) | T n-Nitrosodiphenylamin  | 0.458          | 0.524 | 0.531 | 0.530 | 0.499 | 0.508  | 6.15  |
| 54) | S 2,4,6-Tribromophenol   | 0.098          | 0.113 | 0.112 | 0.106 | 0.111 | 0.108  | 5.77  |
| 55) | 1,2-Diphenylhydrazine    | 1.065          | 1.251 | 1.281 | 1.312 | 1.147 | 1.211  | 8.48  |
| 56) | M 4-Bromophenyl-phenyle  | 0.186          | 0.198 | 0.212 | 0.220 | 0.213 | 0.206  | 6.61  |
| 57) | M Hexachlorobenzene      | 0.138          | 0.231 | 0.244 | 0.228 | 0.233 | 0.215  | 20.20 |
| 58) | CM Pentachlorophenol     | 0.131          | 0.150 | 0.154 | 0.133 | 0.119 | 0.137  | 10.26 |
| 59) | M Phenanthrene           | 0.983          | 1.142 | 1.181 | 1.095 | 1.071 | 1.094  | 6.87  |
| 60) | M Anthracene             | 0.809          | 1.021 | 1.128 | 1.028 | 1.059 | 1.009  | 11.85 |
| 61) | Carbazole                | 0.656          | 1.051 | 1.106 | 0.964 | 0.941 | 0.944  | 18.43 |
| 62) | M Di-n-butylphthalate    | 1.441          | 1.645 | 1.749 | 1.638 | 1.559 | 1.606  | 7.11  |
| 63) | MC Fluoranthene          | 0.922          | 0.947 | 1.162 | 1.124 | 1.019 | 1.035  | 10.22 |
| 64) | I Chrysene-d12           | -----ISTD----- |       |       |       |       |        |       |
| 65) | Benzidine                | 0.569          | 0.427 | 0.364 | 0.399 | 0.428 | 0.437  | 17.86 |
| 66) | M Pyrene                 | 1.857          | 1.452 | 1.658 | 1.267 | 1.273 | 1.502  | 16.98 |
| 67) | S Terphenyl-d14          | 1.355          | 1.039 | 1.124 | 0.880 | 0.911 | 1.062  | 17.99 |
| 68) | M Butylbenzylphthalate   | 1.130          | 0.958 | 1.080 | 0.843 | 0.796 | 0.962  | 15.08 |
| 69) | M Benzo[a]anthracene     | 1.813          | 1.529 | 1.731 | 1.342 | 1.163 | 1.516  | 17.74 |
| 70) | M 3,3'-Dichlorobenzidin  | 0.345          | 0.347 | 0.471 | 0.353 | 0.416 | 0.386  | 14.47 |
| 71) | M Chrysene               | 0.661          | 0.691 | 1.035 | 0.768 | 1.060 | 0.843  | 22.65 |
| 72) | M bis(2-Ethylhexyl)phth  | 1.536          | 1.331 | 1.560 | 1.243 | 1.151 | 1.364  | 13.17 |
| 73) | I Perylene-d12           | -----ISTD----- |       |       |       |       |        |       |
| 74) | MC Di-n-octylphthalate   | 4.287          | 5.460 | 5.911 | 4.718 |       | 5.094  | 14.31 |
| 75) | M Benzo[b]fluoranthene   | 2.445          | 2.215 | 2.794 | 2.522 | 2.357 | 2.467  | 8.75  |
| 76) | m Benzo[k]fluoranthene   | 1.248          | 0.961 | 1.258 | 1.108 | 1.376 | 1.190  | 13.40 |
| 77) | mc Benzo[a]pyrene        | 1.114          | 0.945 | 1.269 | 1.355 | 1.450 | 1.227  | 16.33 |
| 78) | m Indeno[1,2,3-cd]pyren  | 0.493          | 0.521 | 0.450 | 0.417 | 0.381 | 0.452  | 12.46 |
| 79) | m Dibenz[a,h]anthracene  | 0.471          | 0.517 | 0.454 | 0.365 | 0.371 | 0.436  | 15.14 |
| 80) | M Benzo[g,h,i]perylene   | 0.385          | 0.372 | 0.381 | 0.326 | 0.314 | 0.356  | 9.28  |
| 81) | 1-Methyl naphthalene     |                |       |       |       |       | 0.000# | -1.00 |
| 82) | 7,12-Dimethylbenz(a)a    |                |       |       |       |       | 0.000# | -1.00 |

(#) = Out of Range  
 BNACLP.M

Wed May 31 10:07:04 1995

BNA

Page 2

Data File : c:\hpcchem\1\data2\b7751.d

Vial: 2 207

Acq On : 30 May 95 9:44 am

Operator: SCOTTV

Sample : 20 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 25556    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.74 | 136  | 103257   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.06 | 164  | 74029    | 40.00 | ug/mL | -0.32    |
| 50) Phenanthrene-d10      | 22.53 | 188  | 123712   | 40.00 | ug/mL | -0.36    |
| 64) Chrysene-d12          | 30.59 | 240  | 101227   | 40.00 | ug/mL | -0.44    |
| 73) Perylene-d12          | 34.60 | 264  | 55866    | 40.00 | ug/mL | -0.44    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 37223  | 52.40 | ug/mL | 52.40%    |
| 3) Phenol-d5                | 8.39  | 99  | 60299  | 61.22 | ug/mL | 61.22%    |
| 18) Nitrobenzene-d5         | 10.70 | 82  | 59323  | 55.23 | ug/mL | 55.23%    |
| 36) 2-Fluorobiphenyl        | 16.21 | 172 | 108666 | 45.06 | ug/mL | 45.06%    |
| 54) 2,4,6-Tribromophenol    | 20.47 | 330 | 17160  | 50.11 | ug/mL | 50.11%    |
| 67) Terphenyl-d14           | 27.65 | 244 | 115295 | 44.07 | ug/mL | 44.07%    |

| Target Compounds                |       |     |       |       |        | Qvalue |
|---------------------------------|-------|-----|-------|-------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.68  | 74  | 11819 | 64.09 | ug/mLm | 0      |
| 6) Phenol                       | 8.41  | 94  | 21988 | 23.29 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.42 | 93  | 25656 | 25.13 | ug/mL  | 94     |
| 8) 2-Chlorophenol               | 8.45  | 128 | 17535 | 22.70 | ug/mL  | 91     |
| 9) 1,3-Dichlorobenzene          | 8.84  | 146 | 16873 | 19.30 | ug/mL  | 95     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146 | 17619 | 19.90 | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.47  | 146 | 16808 | 18.80 | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.13 | 108 | 15585 | 20.61 | ug/mLm | 62     |
| 13) bis(2-chloroisopropyl) ethe | 10.13 | 45  | 23996 | 14.64 | ug/mL# | 8      |
| 14) 4-Methylphenol              | 10.63 | 108 | 16867 | 20.62 | ug/mL  | 96     |
| 15) N-Nitroso-Di-n-propylamine  | 10.47 | 70  | 16063 | 19.56 | ug/mL  | 95     |
| 16) Hexachloroethane            | 10.43 | 117 | 8960  | 16.89 | ug/mL  | 93     |
| 19) Nitrobenzene                | 10.74 | 77  | 21469 | 22.12 | ug/mL# | 73     |
| 20) Isophorone                  | 10.70 | 82  | 59319 | 34.39 | ug/mL# | 68     |
| 21) 2-Nitrophenol               | 11.70 | 139 | 11002 | 19.97 | ug/mL  | 97     |
| 22) 2,4-Dimethylphenol          | 10.63 | 107 | 20989 | 21.66 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.16  | 93  | 24189 | 20.63 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.47 | 162 | 16624 | 20.82 | ug/mL  | 97     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180 | 16825 | 18.32 | ug/mL  | 99     |
| 26) Naphthalene                 | 12.80 | 128 | 52795 | 20.11 | ug/mL# | 89     |
| 27) 4-Chloroaniline             | 13.15 | 127 | 23600 | 19.35 | ug/mL  | 98     |
| 28) Hexachlorobutadiene         | 13.32 | 225 | 9812  | 16.62 | ug/mL  | 99     |
| 29) 4-Chloro-3-methylphenol     | 14.86 | 107 | 19868 | 19.58 | ug/mL  | 90     |
| 30) 2-Chloronaphthalene         | 16.38 | 162 | 36612 | 17.42 | ug/mL  | 97     |
| 31) 2-Methylnaphthalene         | 14.94 | 142 | 36729 | 19.16 | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.48 | 237 | 8635  | 12.84 | ug/mL  | 99     |
| 34) 2,4,6-Trichlorophenol       | 15.92 | 196 | 13356 | 18.21 | ug/mL  | 96     |
| 35) 2,4,5-Trichlorophenol       | 16.02 | 196 | 13494 | 17.54 | ug/mL  | 98     |

(# ) = qualifier out of range (m) = manual integration

b7751.d BNACLP.M

Wed May 31 10:07:53 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7751.d

Vial: 2

Acq On : 30 May '95 9:44 am

Operator: SCOTTV

Sample : 20 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.85 | 65   | 17876    | 21.08 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.62 | 163  | 46196    | 21.25 | ug/mL  | 100    |
| 39) Acenaphthylene             | 17.58 | 152  | 62290    | 16.75 | ug/mL  | 98     |
| 40) 2,6-Dinitrotoluene         | 17.69 | 165  | 10022    | 19.61 | ug/mL  | 99     |
| 41) 3-Nitroaniline             | 18.12 | 138  | 11669    | 15.38 | ug/mL  | 98     |
| 42) Acenaphthene               | 18.14 | 153  | 38044    | 16.56 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.44 | 184  | 3955     | 15.55 | ug/mLm | 95     |
| 44) 4-Nitrophenol              | 18.93 | 109  | 5206     | 21.05 | ug/mL  | 91     |
| 45) Dibenzofuran               | 18.69 | 168  | 55975    | 17.19 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.73 | 165  | 41635    | 17.45 | ug/mL# | 34     |
| 47) Diethylphthalate           | 19.83 | 149  | 51035    | 19.15 | ug/mL  | 99     |
| 48) Fluorene                   | 19.73 | 166  | 45015    | 17.98 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.93 | 204  | 22774    | 18.71 | ug/mL  | 94     |
| 51) 4-Nitroaniline             | 19.95 | 138  | 10837    | 22.35 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.06 | 198  | 5946     | 17.19 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.33 | 169  | 30841    | 25.02 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.39 | 77   | 70933    | 22.38 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.37 | 248  | 13195    | 20.03 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.35 | 284  | 14382    | 18.78 | ug/mL# | 51     |
| 58) Pentachlorophenol          | 22.07 | 266  | 7390     | 16.37 | ug/mL  | 99     |
| 59) Phenanthrene               | 22.61 | 178  | 66272    | 19.37 | ug/mL  | 98     |
| 60) Anthracene                 | 22.74 | 178  | 65476    | 19.46 | ug/mLm | 97     |
| 61) Carbazole                  | 23.40 | 167  | 58205    | 18.79 | ug/ml  | 100    |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 96445    | 16.33 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.19 | 202  | 63031    | 16.63 | ug/mLm | 93     |
| 65) Benzidine                  | 26.88 | 184  | 21650    | 24.83 | ug/mlm | 100    |
| 66) Pyrene                     | 26.83 | 202  | 64445    | 15.73 | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.43 | 149  | 40290    | 16.46 | ug/mL  | 90     |
| 69) Benzo[a]anthracene         | 30.57 | 228  | 58860    | 18.72 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 21074    | 24.51 | ug/mL  | 98     |
| 71) Chrysene                   | 30.57 | 228  | 53653    | 19.46 | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.40 | 149  | 58259    | 15.97 | ug/mL  | 100    |
| 74) Di-n-octylphthalate        | 33.31 | 149  | 92370    | 9.30  | ug/mL  | 98     |
| 75) Benzo[b]fluoranthene       | 33.62 | 252  | 65848    | 26.94 | ug/mLm | 98     |
| 76) Benzo[k]fluoranthene       | 33.70 | 252  | 38434    | 16.42 | ug/mLm | 91     |
| 77) Benzo[a]pyrene             | 34.45 | 252  | 40502    | 24.28 | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.16 | 276  | 10646    | 15.19 | ug/mL# | 85     |
| 79) Dibenz[a,h]anthracene      | 37.27 | 278  | 10355    | 16.78 | ug/mL# | 91     |
| 80) Benzo[g,h,i]perylene       | 37.74 | 276  | 8780     | 14.39 | ug/mLm | 97     |

(#) = qualifier out of range (m) = manual integration

b7751.d BNACLP.M

Wed May 31 10:07:58 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7751.d

Vial: 2

209

Acq On : 30 May 95 9:44 am

Operator: SCOTTV

Sample : 20 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

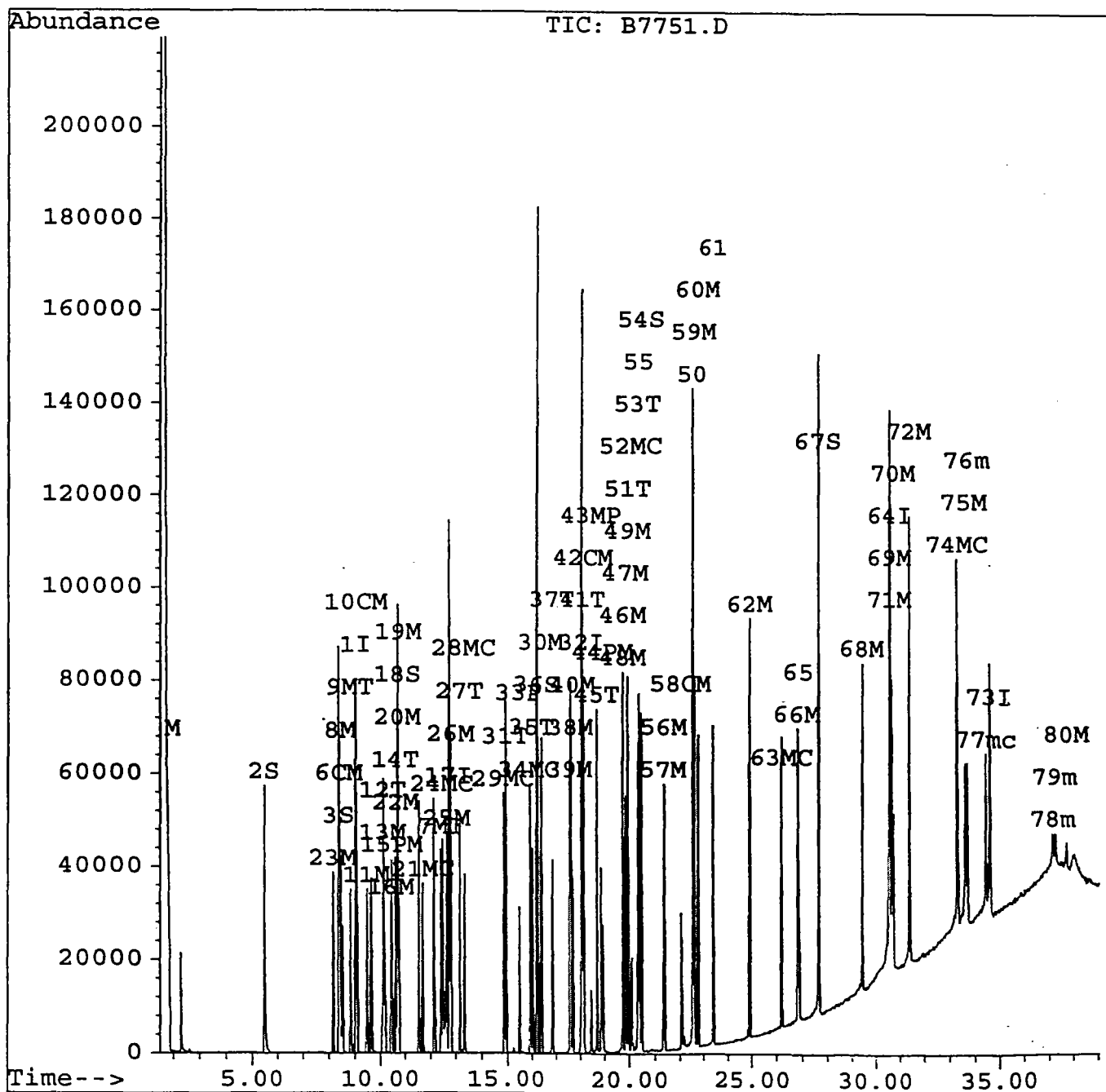
Quant Time: May 31 10:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



## Quantitation Report

Data File : c:\hpchem\1\data2\b7752.d

Vial: 3 210

Acq On : 30 May 95 10:35 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.03  | 152  | 29664    | 40.00 | ug/mL | -0.27    |
| 17) Naphthalene-d8        | 12.75 | 136  | 124059   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.05 | 164  | 81773    | 40.00 | ug/mL | -0.33    |
| 50) Phenanthrene-d10      | 22.52 | 188  | 131721   | 40.00 | ug/mL | -0.37    |
| 64) Chrysene-d12          | 30.58 | 240  | 118287   | 40.00 | ug/mL | -0.45    |
| 73) Perylene-d12          | 34.60 | 264  | 45273    | 40.00 | ug/mL | -0.45    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 39705  | 48.15 | ug/mL | 48.15%    |
| 3) Phenol-d5                | 8.39  | 99  | 63940  | 55.92 | ug/mL | 55.92%    |
| 18) Nitrobenzene-d5         | 10.71 | 82  | 67799  | 52.53 | ug/mL | 52.53%    |
| 36) 2-Fluorobiphenyl        | 16.20 | 172 | 120432 | 45.21 | ug/mL | 45.21%    |
| 54) 2,4,6-Tribromophenol    | 20.46 | 330 | 17504  | 48.01 | ug/mL | 48.01%    |
| 67) Terphenyl-d14           | 27.65 | 244 | 130090 | 42.56 | ug/mL | 42.56%    |

| Target Compounds               |       |     |        |        |        | Qvalue |
|--------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine      | 1.70  | 74  | 27115  | 126.68 | ug/mlm | 0      |
| 6) Phenol                      | 8.43  | 94  | 62958  | 57.46  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl)ether     | 12.42 | 93  | 75709  | 63.88  | ug/mL  | 99     |
| 8) 2-Chlorophenol              | 8.45  | 128 | 46179  | 51.50  | ug/mL# | 84     |
| 9) 1,3-Dichlorobenzene         | 8.84  | 146 | 52488  | 51.73  | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene        | 9.09  | 146 | 54452  | 52.99  | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene        | 9.47  | 146 | 50964  | 49.12  | ug/mL  | 99     |
| 12) 2-Methylphenol             | 10.13 | 108 | 43177  | 49.20  | ug/mLm | 65     |
| 13) bis(2-chloroisopropyl)ethe | 10.09 | 45  | 64159  | 33.73  | ug/mL# | 67     |
| 14) 4-Methylphenol             | 10.63 | 108 | 48583  | 51.18  | ug/mL  | 98     |
| 15) N-Nitroso-Di-n-propylamine | 10.49 | 70  | 46969  | 49.27  | ug/mL  | 99     |
| 16) Hexachloroethane           | 10.42 | 117 | 27701  | 44.99  | ug/mL# | 69     |
| 19) Nitrobenzene               | 10.76 | 77  | 67644  | 58.02  | ug/mL  | 89     |
| 20) Isophorone                 | 11.57 | 82  | 126657 | 61.12  | ug/mL  | 97     |
| 21) 2-Nitrophenol              | 11.69 | 139 | 31019  | 46.87  | ug/mL  | 88     |
| 22) 2,4-Dimethylphenol         | 10.63 | 107 | 59303  | 50.95  | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy)methane | 8.16  | 93  | 70617  | 50.13  | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol         | 12.48 | 162 | 45218  | 47.12  | ug/mL  | 98     |
| 25) 1,2,4-Trichlorobenzene     | 12.65 | 180 | 49933  | 45.25  | ug/mL  | 98     |
| 26) Naphthalene                | 12.81 | 128 | 149358 | 47.34  | ug/mL# | 91     |
| 27) 4-Chloroaniline            | 13.15 | 127 | 72575  | 49.52  | ug/mL  | 100    |
| 28) Hexachlorobutadiene        | 13.33 | 225 | 28798  | 40.59  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol    | 14.87 | 107 | 59715  | 48.98  | ug/mL  | 99     |
| 30) 2-Chloronaphthalene        | 16.37 | 162 | 108511 | 42.96  | ug/ml  | 97     |
| 31) 2-Methylnaphthalene        | 14.94 | 142 | 108935 | 47.31  | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene  | 15.46 | 237 | 26413  | 35.57  | ug/mL  | 98     |
| 34) 2,4,6-Trichlorophenol      | 15.91 | 196 | 38933  | 48.06  | ug/mL  | 99     |
| 35) 2,4,5-Trichlorophenol      | 16.00 | 196 | 37853  | 44.55  | ug/mL  | 100    |

(#)= qualifier out of range (m) = manual integration

b7752.d BNACLP.M

Wed May 31 10:08:38 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7752.d

Vial: 3

Acq On : 30 May 95 10:35 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.85 | 65   | 59044    | 63.04 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.62 | 163  | 132350   | 55.11 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.58 | 152  | 174919   | 42.58 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.70 | 165  | 33402    | 59.16 | ug/mL  | 98     |
| 41) 3-Nitroaniline             | 18.12 | 138  | 37075    | 44.25 | ug/mL  | 98     |
| 42) Acenaphthene               | 18.14 | 153  | 104702   | 41.25 | ug/mL  | 100    |
| 43) 2,4-Dinitrophenol          | 18.45 | 184  | 15812    | 56.30 | ug/mL# | 91     |
| 44) 4-Nitrophenol              | 18.93 | 109  | 17219    | 63.03 | ug/mL# | 83     |
| 45) Dibenzofuran               | 18.70 | 168  | 170626   | 47.45 | ug/mL  | 97     |
| 46) 2,4-Dinitrotoluene         | 19.72 | 165  | 116800   | 44.33 | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 148456   | 50.42 | ug/mL  | 98     |
| 48) Fluorene                   | 19.72 | 166  | 125476   | 45.36 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.92 | 204  | 60420    | 44.93 | ug/mL  | 95     |
| 51) 4-Nitroaniline             | 19.99 | 138  | 35220    | 68.23 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.09 | 198  | 21308    | 57.84 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.32 | 169  | 87310    | 66.53 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.38 | 77   | 216080   | 64.04 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.36 | 248  | 36244    | 51.67 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.34 | 284  | 37570    | 46.07 | ug/mL# | 76     |
| 58) Pentachlorophenol          | 22.06 | 266  | 21962    | 45.70 | ug/mL  | 98     |
| 59) Phenanthrene               | 22.60 | 178  | 180287   | 49.49 | ug/mL  | 100    |
| 60) Anthracene                 | 22.75 | 178  | 169255   | 47.24 | ug/mLm | 99     |
| 61) Carbazole                  | 23.39 | 167  | 158797   | 48.15 | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.91 | 149  | 269738   | 42.89 | ug/mL  | 100    |
| 63) Fluoranthene               | 26.20 | 202  | 185037   | 45.86 | ug/mLm | 81     |
| 65) Benzidine                  | 26.87 | 184  | 58973    | 57.88 | ug/mlm | 100    |
| 66) Pyrene                     | 26.84 | 202  | 187374   | 39.15 | ug/mL  | 97     |
| 68) Butylbenzylphthalate       | 29.42 | 149  | 124656   | 43.57 | ug/mL  | 91     |
| 69) Benzo[a]anthracene         | 30.56 | 228  | 198412   | 54.00 | ug/mL  | 100    |
| 70) 3,3'-Dichlorobenzidine     | 30.71 | 252  | 52146    | 51.91 | ug/mL  | 98     |
| 71) Chrysene                   | 30.66 | 228  | 113518   | 35.24 | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.39 | 149  | 183732   | 43.10 | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.30 | 149  | 267010   | 33.18 | ug/mL  | 98     |
| 75) Benzo[b]fluoranthene       | 33.63 | 252  | 142718   | 72.04 | ug/mL  | 98     |
| 76) Benzo[k]fluoranthene       | 33.71 | 252  | 62677    | 33.05 | ug/mLm | 95     |
| 77) Benzo[a]pyrene             | 34.44 | 252  | 76698    | 56.74 | ug/mLm | 99     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.16 | 276  | 23591    | 41.53 | ug/mLm | 96     |
| 79) Dibenz[a,h]anthracene      | 37.28 | 278  | 20678    | 41.35 | ug/mL  | 96     |
| 80) Benzo[g,h,i]perylene       | 37.74 | 276  | 18451    | 37.32 | ug/mL  | 95     |

(#) = qualifier out of range (m) = manual integration

b7752.d BNACLP.M

Wed May 31 10:08:45 1995

BNA

Page 2

Data File : c:\hpchem\1\data2\b7752.d

Vial: 3

Acq On : 30 May 95 10:35 am

Operator: SCOTTV

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Sample      : 50 STD.....

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Converted from RTE d Inst

: ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 10:04 1995

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Method      : c:\HPCHEM\1\METHODS\BNACLP.M
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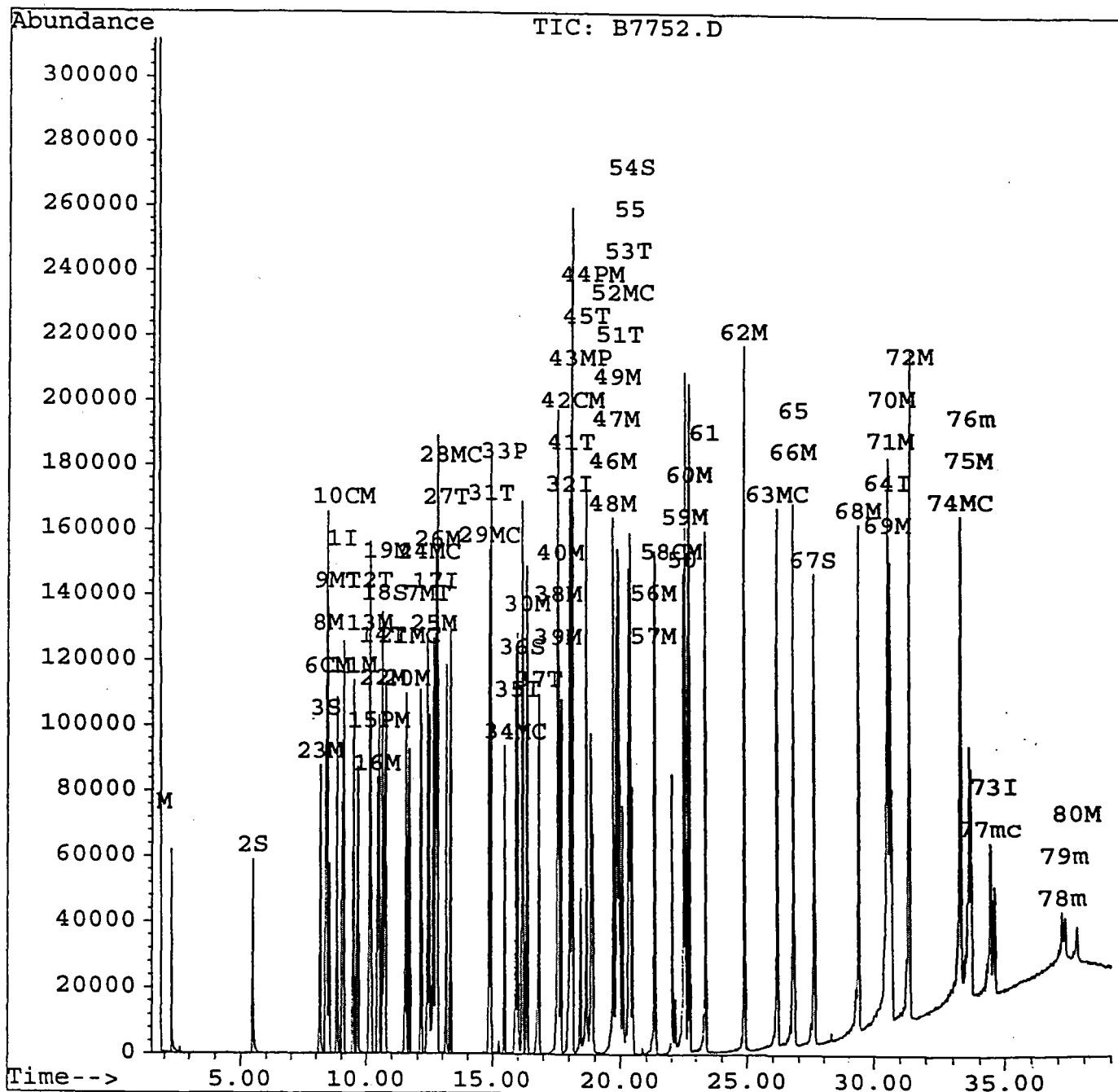
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Title      : CLP BNA Calibration
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Last Update      : Tue May 30 08:17:48 1995

```

Response via : Multiple Level Calibration





## Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d

Vial: 4 213

Acq On : 30 May 95 11:27 am

Operator: SCOTTV

Sample : 80 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 29814    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.75 | 136  | 126317   | 40.00 | ug/mL | -0.28    |
| 32) Acenaphthene-d10      | 18.05 | 164  | 87574    | 40.00 | ug/mL | -0.33    |
| 50) Phenanthrene-d10      | 22.54 | 188  | 151522   | 40.00 | ug/mL | -0.35    |
| 64) Chrysene-d12          | 30.60 | 240  | 106944   | 40.00 | ug/mL | -0.42    |
| 73) Perylene-d12          | 34.60 | 264  | 39840    | 40.00 | ug/mL | -0.45    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112  | 43593    | 52.60 | ug/mL | 52.60%    |
| 3) Phenol-d5                | 8.41  | 99   | 71703    | 62.40 | ug/mL | 62.40%    |
| 18) Nitrobenzene-d5         | 10.72 | 82   | 75552    | 57.49 | ug/mL | 57.49%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172  | 134602   | 47.18 | ug/mL | 47.18%    |
| 54) 2,4,6-Tribromophenol    | 20.48 | 330  | 21167    | 50.47 | ug/mL | 50.47%    |
| 67) Terphenyl-d14           | 27.65 | 244  | 150199   | 54.35 | ug/mL | 54.35%    |

| Target Compounds                | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|---------------------------------|-------|------|----------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.62  | 74   | 25992    | 120.82 | ug/mL  | 100    |
| 6) Phenol                       | 8.45  | 94   | 100529   | 91.29  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.44 | 93   | 125480   | 105.34 | ug/mL  | 99     |
| 8) 2-Chlorophenol               | 8.45  | 128  | 77924    | 86.47  | ug/mL# | 89     |
| 9) 1,3-Dichlorobenzene          | 8.86  | 146  | 88850    | 87.12  | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146  | 90142    | 87.29  | ug/mL  | 98     |
| 11) 1,2-Dichlorobenzene         | 9.49  | 146  | 86576    | 83.03  | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.15 | 108  | 75232    | 85.29  | ug/mLm | 63     |
| 13) bis(2-chloroisopropyl) ethe | 10.11 | 45   | 118548   | 62.01  | ug/mL# | 81     |
| 14) 4-Methylphenol              | 10.65 | 108  | 79296    | 83.11  | ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine  | 10.53 | 70   | 87737    | 91.57  | ug/mL  | 94     |
| 16) Hexachloroethane            | 10.44 | 117  | 47246    | 76.35  | ug/mL  | 93     |
| 19) Nitrobenzene                | 10.78 | 77   | 116413   | 98.06  | ug/mL# | 86     |
| 20) Isophorone                  | 11.61 | 82   | 221062   | 104.76 | ug/mL  | 99     |
| 21) 2-Nitrophenol               | 11.71 | 139  | 56797    | 84.29  | ug/mL  | 91     |
| 22) 2,4-Dimethylphenol          | 10.65 | 107  | 97981    | 82.67  | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.18  | 93   | 117962   | 82.25  | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.50 | 162  | 77661    | 79.49  | ug/mL  | 99     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180  | 82424    | 73.37  | ug/mL  | 100    |
| 26) Naphthalene                 | 12.83 | 128  | 262498   | 81.72  | ug/mL# | 92     |
| 27) 4-Chloroaniline             | 13.17 | 127  | 118867   | 79.65  | ug/mL  | 99     |
| 28) Hexachlorobutadiene         | 13.33 | 225  | 47670    | 66.00  | ug/mL  | 96     |
| 29) 4-Chloro-3-methylphenol     | 14.87 | 107  | 100652   | 81.09  | ug/mL  | 90     |
| 30) 2-Chloronaphthalene         | 16.39 | 162  | 181668   | 70.65  | ug/mL  | 100    |
| 31) 2-Methylnaphthalene         | 14.94 | 142  | 161698   | 68.97  | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.46 | 237  | 52969    | 66.60  | ug/mL  | 100    |
| 34) 2,4,6-Trichlorophenol       | 15.93 | 196  | 72387    | 83.44  | ug/mL  | 98     |
| 35) 2,4,5-Trichlorophenol       | 16.00 | 196  | 60973    | 67.01  | ug/mL  | 98     |

(#)=qualifier out of range (m)=manual integration

b7753.d BNACLP.M

Wed May 31 10:09:24 1995

BNA

Page 1

## Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d

Vial: 4

Acq On : 30 May 95 11:27 am

Operator: SCOTTV

Sample : 80 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:32 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.87 | 65   | 103690   | 103.37 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.66 | 163  | 240471   | 93.49  | ug/mL# | 99     |
| 39) Acenaphthylene             | 17.60 | 152  | 316138   | 71.86  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.74 | 165  | 60631    | 100.28 | ug/mL  | 92     |
| 41) 3-Nitroaniline             | 18.16 | 138  | 70580    | 78.65  | ug/mL  | 92     |
| 42) Acenaphthene               | 18.16 | 153  | 181405   | 66.74  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.47 | 184  | 34630    | 115.13 | ug/mL  | 93     |
| 44) 4-Nitrophenol              | 18.95 | 109  | 33002    | 112.80 | ug/mL  | 86     |
| 45) Dibenzofuran               | 18.70 | 168  | 295374   | 76.70  | ug/mL  | 95     |
| 46) 2,4-Dinitrotoluene         | 19.74 | 165  | 209002   | 74.07  | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 275990   | 87.53  | ug/mL  | 98     |
| 48) Fluorene                   | 19.74 | 166  | 226899   | 76.60  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 107387   | 74.57  | ug/mL  | 95     |
| 51) 4-Nitroaniline             | 20.03 | 138  | 48638    | 81.91  | ug/mL  | 96     |
| 52) 4,6-Dinitro-2-methylphenol | 20.11 | 198  | 45736    | 107.93 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.34 | 169  | 161028   | 106.67 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.40 | 77   | 388272   | 100.03 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.38 | 248  | 64383    | 79.79  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 73929    | 78.80  | ug/mL# | 70     |
| 58) Pentachlorophenol          | 22.06 | 266  | 46630    | 84.35  | ug/mL  | 97     |
| 59) Phenanthrene               | 22.62 | 178  | 357765   | 85.38  | ug/mL  | 99     |
| 60) Anthracene                 | 22.77 | 178  | 341982   | 82.98  | ug/mLm | 98     |
| 61) Carbazole                  | 23.41 | 167  | 335154   | 88.34  | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.91 | 149  | 529878   | 73.24  | ug/mL  | 99     |
| 63) Fluoranthene               | 26.20 | 202  | 352244   | 75.89  | ug/mLm | 91     |
| 65) Benzidine                  | 26.88 | 184  | 77859    | 84.53  | ug/ml  | 100    |
| 66) Pyrene                     | 26.84 | 202  | 354638   | 81.96  | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.42 | 149  | 231051   | 89.32  | ug/mL  | 95     |
| 69) Benzo[a]anthracene         | 30.58 | 228  | 370214   | 111.44 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 100778   | 110.96 | ug/mL  | 98     |
| 71) Chrysene                   | 30.68 | 228  | 221302   | 75.99  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.39 | 149  | 333704   | 86.58  | ug/mL  | 97     |
| 74) Di-n-octylphthalate        | 33.30 | 149  | 471006   | 66.51  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.63 | 252  | 222662   | 127.72 | ug/mL  | 97     |
| 76) Benzo[k]fluoranthene       | 33.71 | 252  | 100220   | 60.05  | ug/mLm | 94     |
| 77) Benzo[a]pyrene             | 34.44 | 252  | 101126   | 85.01  | ug/mLm | 99     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.17 | 276  | 35858    | 71.73  | ug/mL  | 88     |
| 79) Dibenz[a,h]anthracene      | 37.28 | 278  | 36175    | 82.20  | ug/mL  | 94     |
| 80) Benzo[g,h,i]perylene       | 37.75 | 276  | 30352    | 69.77  | ug/mLm | 99     |

(#) = qualifier out of range (m) = manual integration

b7753.d BNACLP.M

Wed May 31 10:09:31 1995

BNA

Page 2

# Quantitation Report

Data File : c:\hpchem\1\data2\b7753.d

Acq On : 30 May 95 11:27 am

Sample : 80 STD.....

Misc :

Quant Time: May 31 9:32 1995

Vial: 4

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

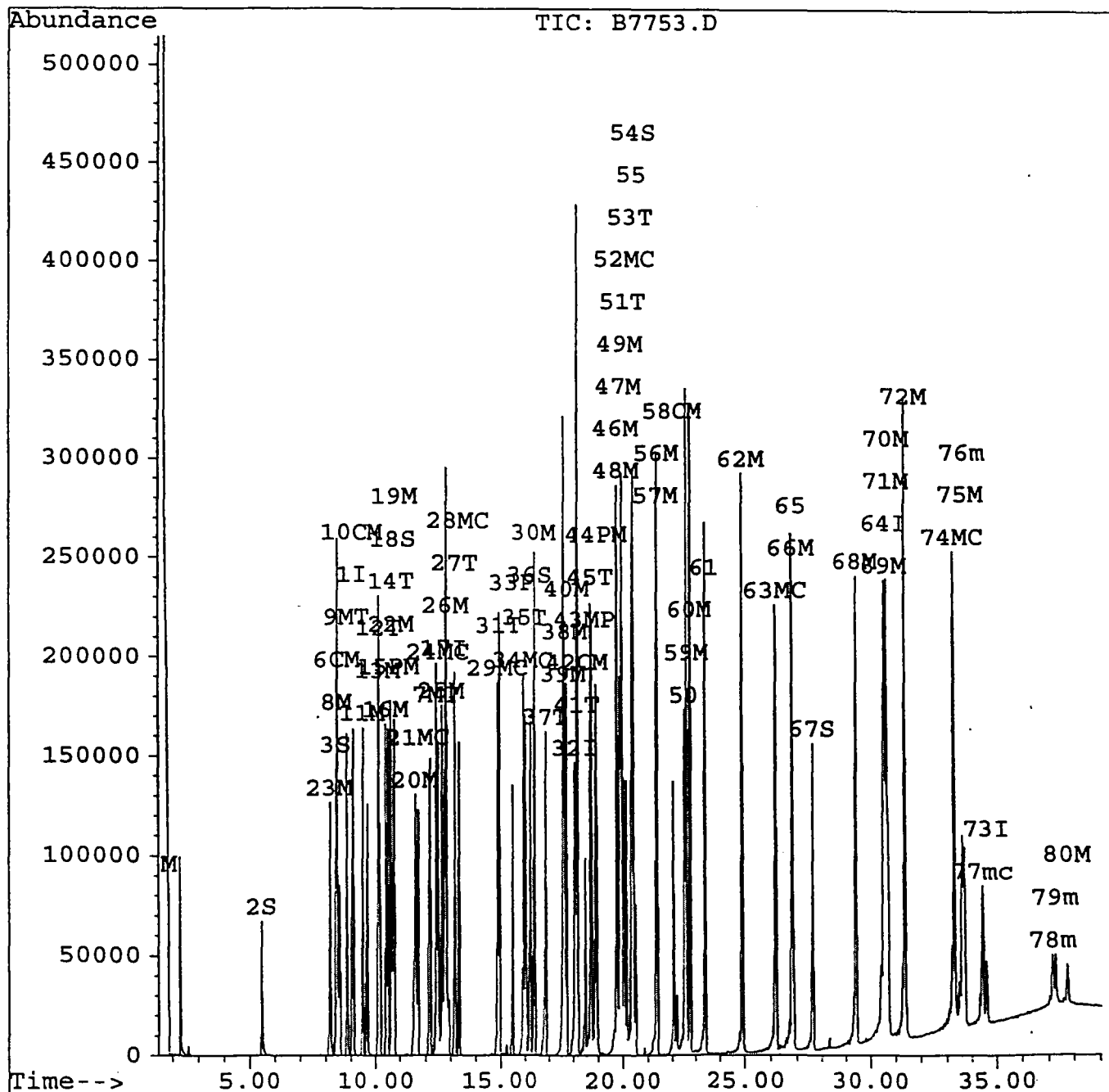
215

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7754.d

Acq On : 30 May 95 12:20 pm

Sample : 120 STD.....

Misc :

Quant Time: May 31 9:49 1995

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

216

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 27011    | 40.00 | ug/mL | -0.26     |
| 17) Naphthalene-d8        | 12.77 | 136  | 112346   | 40.00 | ug/mL | -0.26     |
| 32) Acenaphthene-d10      | 18.05 | 164  | 74142    | 40.00 | ug/mL | -0.33     |
| 50) Phenanthrene-d10      | 22.53 | 188  | 133454   | 40.00 | ug/ml | -0.36     |
| 64) Chrysene-d12          | 30.59 | 240  | 102268   | 40.00 | ug/mL | -0.43     |
| 73) Perylene-d12          | 34.61 | 264  | 30843    | 40.00 | ug/mL | -0.44     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112  | 40691    | 54.19 | ug/mL | 54.19%    |
| 3) Phenol-d5                | 8.41  | 99   | 68173    | 65.48 | ug/mL | 65.48%    |
| 18) Nitrobenzene-d5         | 10.73 | 82   | 65499    | 56.04 | ug/mL | 56.04%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172  | 116201   | 48.11 | ug/mL | 48.11%    |
| 54) 2,4,6-Tribromophenol    | 20.48 | 330  | 18886    | 51.13 | ug/mL | 51.13%    |
| 67) Terphenyl-d14           | 27.64 | 244  | 132840   | 50.26 | ug/mL | 50.26%    |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 4) N-nitrosodimethylamine      | 1.64  | 74   | 44263    | 227.10 | ug/ml  | 100    |
| 6) Phenol                      | 8.47  | 94   | 145178   | 145.51 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl)ether     | 12.44 | 93   | 168732   | 156.34 | ug/mL  | 98     |
| 8) 2-Chlorophenol              | 8.47  | 128  | 104043   | 127.43 | ug/mL# | 87     |
| 9) 1,3-Dichlorobenzene         | 8.86  | 146  | 113739   | 123.10 | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene        | 9.11  | 146  | 118937   | 127.12 | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene        | 9.49  | 146  | 112702   | 119.30 | ug/mL  | 98     |
| 12) 2-Methylphenol             | 10.17 | 108  | 102718   | 128.54 | ug/mLm | 63     |
| 13) bis(2-chloroisopropyl)ethe | 10.11 | 45   | 150752   | 87.04  | ug/mL# | 79     |
| 14) 4-Methylphenol             | 10.67 | 108  | 116050   | 134.26 | ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine | 10.53 | 70   | 117037   | 134.82 | ug/mL  | 99     |
| 16) Hexachloroethane           | 10.44 | 117  | 61265    | 109.28 | ug/mL# | 81     |
| 19) Nitrobenzene               | 10.78 | 77   | 137726   | 130.44 | ug/mL# | 79     |
| 20) Isophorone                 | 11.63 | 82   | 286449   | 152.63 | ug/mL  | 100    |
| 21) 2-Nitrophenol              | 11.73 | 139  | 75814    | 126.50 | ug/mL  | 95     |
| 22) 2,4-Dimethylphenol         | 10.67 | 107  | 144674   | 137.24 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy)methane | 8.18  | 93   | 151120   | 118.47 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol         | 12.52 | 162  | 100762   | 115.96 | ug/mL  | 99     |
| 25) 1,2,4-Trichlorobenzene     | 12.67 | 180  | 107106   | 107.19 | ug/mL  | 98     |
| 26) Naphthalene                | 12.83 | 128  | 319371   | 111.79 | ug/mL# | 91     |
| 27) 4-Chloroaniline            | 13.17 | 127  | 156643   | 118.02 | ug/mL  | 98     |
| 28) Hexachlorobutadiene        | 13.35 | 225  | 62689    | 97.58  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol    | 14.89 | 107  | 133371   | 120.81 | ug/mL# | 86     |
| 30) 2-Chloronaphthalene        | 16.39 | 162  | 229152   | 100.19 | ug/ml  | 100    |
| 31) 2-Methylnaphthalene        | 14.96 | 142  | 331843   | 159.13 | ug/mL  | 97     |
| 33) Hexachlorocyclopentadiene  | 15.46 | 237  | 67420    | 100.13 | ug/mL  | 97     |
| 34) 2,4,6-Trichlorophenol      | 15.93 | 196  | 100492   | 136.82 | ug/mL  | 99     |
| 35) 2,4,5-Trichlorophenol      | 16.00 | 196  | 70403    | 91.40  | ug/mL  | 99     |

(#)=qualifier out of range (m)=manual integration

b7754.d BNACLP.M

Wed May 31 10:10:10 1995

BNA

Page 1

## Quantitation Report

Data File : c:\hpchem\1\data2\b7754.d

Vial: 5

217

Acq On : 30 May 95 12:20 pm

Operator: SCOTTV

Sample : 120 STD.....

Converted from RTE d Inst

ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.87 | 65   | 125966   | 148.33 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.66 | 163  | 299887   | 137.71 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.61 | 152  | 381978   | 102.55 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.74 | 165  | 69446    | 135.67 | ug/mLm | 93     |
| 41) 3-Nitroaniline             | 18.16 | 138  | 82189    | 108.18 | ug/mL  | 95     |
| 42) Acenaphthene               | 18.16 | 153  | 234884   | 102.07 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.49 | 184  | 47322    | 185.83 | ug/mL  | 87     |
| 44) 4-Nitrophenol              | 18.96 | 109  | 39654    | 160.09 | ug/mL  | 90     |
| 45) Dibenzofuran               | 18.72 | 168  | 378169   | 115.99 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.75 | 165  | 276442   | 115.72 | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.86 | 149  | 341020   | 127.75 | ug/mL  | 99     |
| 48) Fluorene                   | 19.75 | 166  | 296520   | 118.24 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 135159   | 110.86 | ug/mL  | 94     |
| 51) 4-Nitroaniline             | 20.06 | 138  | 60415    | 115.52 | ug/mL  | 95     |
| 52) 4,6-Dinitro-2-methylphenol | 20.13 | 198  | 56816    | 152.23 | ug/mLm | 100    |
| 53) n-Nitrosodiphenylamine     | 20.35 | 169  | 209653   | 157.68 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.40 | 77   | 500723   | 146.47 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.39 | 248  | 79413    | 111.75 | ug/mL  | 95     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 92449    | 111.89 | ug/mL# | 68     |
| 58) Pentachlorophenol          | 22.06 | 266  | 59890    | 123.01 | ug/mL  | 99     |
| 59) Phenanthrene               | 22.62 | 178  | 457295   | 123.90 | ug/mL  | 99     |
| 60) Anthracene                 | 22.78 | 178  | 408657   | 112.58 | ug/mLm | 99     |
| 61) Carbazole                  | 23.41 | 167  | 420878   | 125.96 | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 658579   | 103.35 | ug/mL  | 100    |
| 63) Fluoranthene               | 26.21 | 202  | 379190   | 92.76  | ug/mLm | 91     |
| 65) Benzidine                  | 26.87 | 184  | 131098   | 148.83 | ug/mlm | 100    |
| 66) Pyrene                     | 26.85 | 202  | 445627   | 107.70 | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.43 | 149  | 293901   | 118.82 | ug/mL  | 93     |
| 69) Benzo[a]anthracene         | 30.57 | 228  | 469239   | 147.71 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.73 | 252  | 106370   | 122.47 | ug/mL# | 97     |
| 71) Chrysene                   | 30.67 | 228  | 211972   | 76.11  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.40 | 149  | 408257   | 110.77 | ug/mL  | 98     |
| 74) Di-n-octylphthalate        | 33.31 | 149  | 505170   | 92.14  | ug/mL  | 100    |
| 75) Benzo[b]fluoranthene       | 33.64 | 252  | 204971   | 151.87 | ug/mLm | 97     |
| 76) Benzo[k]fluoranthene       | 33.72 | 252  | 88924    | 68.83  | ug/mLm | 96     |
| 77) Benzo[a]pyrene             | 34.45 | 252  | 87415    | 94.92  | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.18 | 276  | 48224    | 124.60 | ug/mL# | 81     |
| 79) Dibenz[a,h]anthracene      | 37.31 | 278  | 47851    | 140.44 | ug/mL  | 98     |
| 80) Benzo[g,h,i]perylene       | 37.76 | 276  | 34423    | 102.21 | ug/mLm | 95     |

(#) = qualifier out of range (m) = manual integration

b7754.d BNACLP.M

Wed May 31 10:10:17 1995

BNA

Page 2

Vial: 5

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

## Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d

Vial: 6

219

Acq On : 30 May 95 1:12 pm

Operator: SCOTTV

Sample : 160 STD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 29361    | 40.00 | ug/mL | -0.26    |
| 17) Naphthalene-d8        | 12.77 | 136  | 123075   | 40.00 | ug/mL | -0.26    |
| 32) Acenaphthene-d10      | 18.07 | 164  | 86872    | 40.00 | ug/mL | -0.31    |
| 50) Phenanthrene-d10      | 22.53 | 188  | 155037   | 40.00 | ug/mL | -0.36    |
| 64) Chrysene-d12          | 30.60 | 240  | 82528    | 40.00 | ug/mL | -0.43    |
| 73) Perylene-d12          | 34.62 | 264  | 32039    | 40.00 | ug/mL | -0.43    |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.47  | 112 | 38395  | 47.04 | ug/mL | 47.04%    |
| 3) Phenol-d5                | 8.43  | 99  | 66343  | 58.62 | ug/mL | 58.62%    |
| 18) Nitrobenzene-d5         | 10.73 | 82  | 67218  | 52.50 | ug/mL | 52.50%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172 | 126324 | 44.63 | ug/mL | 44.63%    |
| 54) 2,4,6-Tribromophenol    | 20.49 | 330 | 18970  | 44.21 | ug/mL | 44.21%    |
| 67) Terphenyl-d14           | 27.64 | 244 | 139748 | 65.52 | ug/mL | 65.52%    |

| Target Compounds                |       |     |        |        |        | Qvalue |
|---------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 1.64  | 74  | 70397  | 332.28 | ug/mL  | 100    |
| 6) Phenol                       | 8.47  | 94  | 169408 | 156.21 | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.46 | 93  | 222301 | 189.49 | ug/mL  | 91     |
| 8) 2-Chlorophenol               | 8.47  | 128 | 133653 | 150.59 | ug/mL# | 88     |
| 9) 1,3-Dichlorobenzene          | 8.86  | 146 | 152142 | 151.49 | ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene         | 9.11  | 146 | 154778 | 152.19 | ug/mL  | 98     |
| 11) 1,2-Dichlorobenzene         | 9.49  | 146 | 147372 | 143.51 | ug/mL  | 99     |
| 12) 2-Methylphenol              | 10.17 | 108 | 130214 | 149.90 | ug/mLm | 63     |
| 13) bis(2-chloroisopropyl) ethe | 10.13 | 45  | 221469 | 117.64 | ug/mL  | 93     |
| 14) 4-Methylphenol              | 10.67 | 108 | 142777 | 151.95 | ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine  | 10.55 | 70  | 151444 | 160.49 | ug/mL  | 97     |
| 16) Hexachloroethane            | 10.44 | 117 | 81125  | 133.13 | ug/mL# | 82     |
| 19) Nitrobenzene                | 10.80 | 77  | 196043 | 169.49 | ug/mL# | 87     |
| 20) Isophorone                  | 11.65 | 82  | 382084 | 185.84 | ug/mL  | 99     |
| 21) 2-Nitrophenol               | 11.73 | 139 | 92995  | 141.64 | ug/mL  | 89     |
| 22) 2,4-Dimethylphenol          | 10.67 | 107 | 178112 | 154.23 | ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.20  | 93  | 217251 | 155.46 | ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.52 | 162 | 133269 | 140.00 | ug/mL  | 99     |
| 25) 1,2,4-Trichlorobenzene      | 12.67 | 180 | 144061 | 131.61 | ug/mL  | 99     |
| 26) Naphthalene                 | 12.83 | 128 | 453739 | 144.98 | ug/mL# | 91     |
| 27) 4-Chloroaniline             | 13.19 | 127 | 223903 | 153.98 | ug/mL  | 98     |
| 28) Hexachlorobutadiene         | 13.35 | 225 | 86033  | 122.24 | ug/mL  | 97     |
| 29) 4-Chloro-3-methylphenol     | 14.89 | 107 | 174950 | 144.66 | ug/mL# | 75     |
| 30) 2-Chloronaphthalene         | 16.39 | 162 | 331044 | 132.12 | ug/mL  | 99     |
| 31) 2-Methylnaphthalene         | 14.97 | 142 | 438189 | 191.81 | ug/mL  | 98     |
| 33) Hexachlorocyclopentadiene   | 15.49 | 237 | 102334 | 129.71 | ug/mL  | 99     |
| 34) 2,4,6-Trichlorophenol       | 15.95 | 196 | 163412 | 189.89 | ug/mL  | 97     |
| 35) 2,4,5-Trichlorophenol       | 16.03 | 196 | 76742  | 85.03  | ug/mL  | 98     |

(#)=qualifier out of range (m)=manual integration

b7755.d BNACLP.M

Wed May 31 10:10:57 1995

BNA

Page 1

## Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d

Vial: 6 220

Acq On : 30 May 95 1:12 pm

Operator: SCOTTV

Sample : 160 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: May 31 9:52 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 37) 2-Nitroaniline             | 16.89 | 65   | 183241   | 184.15 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.67 | 163  | 428564   | 167.96 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.61 | 152  | 558058   | 127.87 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.76 | 165  | 102561   | 171.00 | ug/mLm | 92     |
| 41) 3-Nitroaniline             | 18.17 | 138  | 96949    | 108.91 | ug/mL  | 100    |
| 42) Acenaphthene               | 18.17 | 153  | 341152   | 126.53 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.50 | 184  | 65640    | 219.99 | ug/mL  | 88     |
| 44) 4-Nitrophenol              | 18.96 | 109  | 52458    | 180.75 | ug/mL  | 93     |
| 45) Dibenzofuran               | 18.73 | 168  | 512481   | 134.15 | ug/mL  | 98     |
| 46) 2,4-Dinitrotoluene         | 19.77 | 165  | 393324   | 140.52 | ug/mL# | 35     |
| 47) Diethylphthalate           | 19.89 | 149  | 442732   | 141.55 | ug/mL  | 97     |
| 48) Fluorene                   | 19.77 | 166  | 424603   | 144.50 | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 19.94 | 204  | 192605   | 134.83 | ug/mL  | 98     |
| 51) 4-Nitroaniline             | 20.08 | 138  | 81046    | 133.39 | ug/mL  | 90     |
| 52) 4,6-Dinitro-2-methylphenol | 20.16 | 198  | 87159    | 201.02 | ug/mLm | 100    |
| 53) n-Nitrosodiphenylamine     | 20.37 | 169  | 283832   | 183.75 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.41 | 77   | 660607   | 166.34 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.39 | 248  | 115508   | 139.91 | ug/mLm | 91     |
| 57) Hexachlorobenzene          | 21.37 | 284  | 85494    | 89.06  | ug/mLm | 53     |
| 58) Pentachlorophenol          | 22.09 | 266  | 81327    | 143.79 | ug/mL  | 100    |
| 59) Phenanthrene               | 22.63 | 178  | 609750   | 142.21 | ug/mL  | 99     |
| 60) Anthracene                 | 22.78 | 178  | 501796   | 118.99 | ug/mLm | 99     |
| 61) Carbazole                  | 23.40 | 167  | 406913   | 104.82 | ug/ml  | 98     |
| 62) Di-n-butylphthalate        | 24.92 | 149  | 893793   | 120.74 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.22 | 202  | 572007   | 120.45 | ug/mLm | 92     |
| 65) Benzidine                  | 26.87 | 184  | 187882   | 264.32 | ug/ml  | 100    |
| 66) Pyrene                     | 26.85 | 202  | 612856   | 183.54 | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.44 | 149  | 373168   | 186.95 | ug/mL  | 91     |
| 69) Benzo[a]anthracene         | 30.58 | 228  | 598348   | 233.40 | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.72 | 252  | 113910   | 162.52 | ug/mL  | 99     |
| 71) Chrysene                   | 30.68 | 228  | 218157   | 97.07  | ug/mLm | 98     |
| 72) bis(2-Ethylhexyl)phthalate | 31.41 | 149  | 506955   | 170.44 | ug/mL  | 96     |
| 74) Di-n-octylphthalate        | 33.32 | 149  | 549407   | 96.47  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.65 | 252  | 313299   | 223.47 | ug/mLm | 96     |
| 76) Benzo[k]fluoranthene       | 33.65 | 252  | 159963   | 119.19 | ug/mLm | 96     |
| 77) Benzo[a]pyrene             | 34.46 | 252  | 142747   | 149.22 | ug/mLm | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.20 | 276  | 63169    | 157.13 | ug/mL  | 98     |
| 79) Dibenz[a,h]anthracene      | 37.32 | 278  | 60387    | 170.62 | ug/mL  | 99     |
| 80) Benzo[g,h,i]perylene       | 37.76 | 276  | 49358    | 141.09 | ug/mLm | 94     |

(#) = qualifier out of range (m) = manual integration

b7755.d BNACLP.M

Wed May 31 10:11:03 1995

BNA

Page 2



## Quantitation Report

Data File : c:\hpchem\1\data2\b7755.d

Acq On : 30 May 95 1:12 pm

Sample : 160 STD.....

Misc :

Quant Time: May 31 9:52 1995

Vial: 6

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

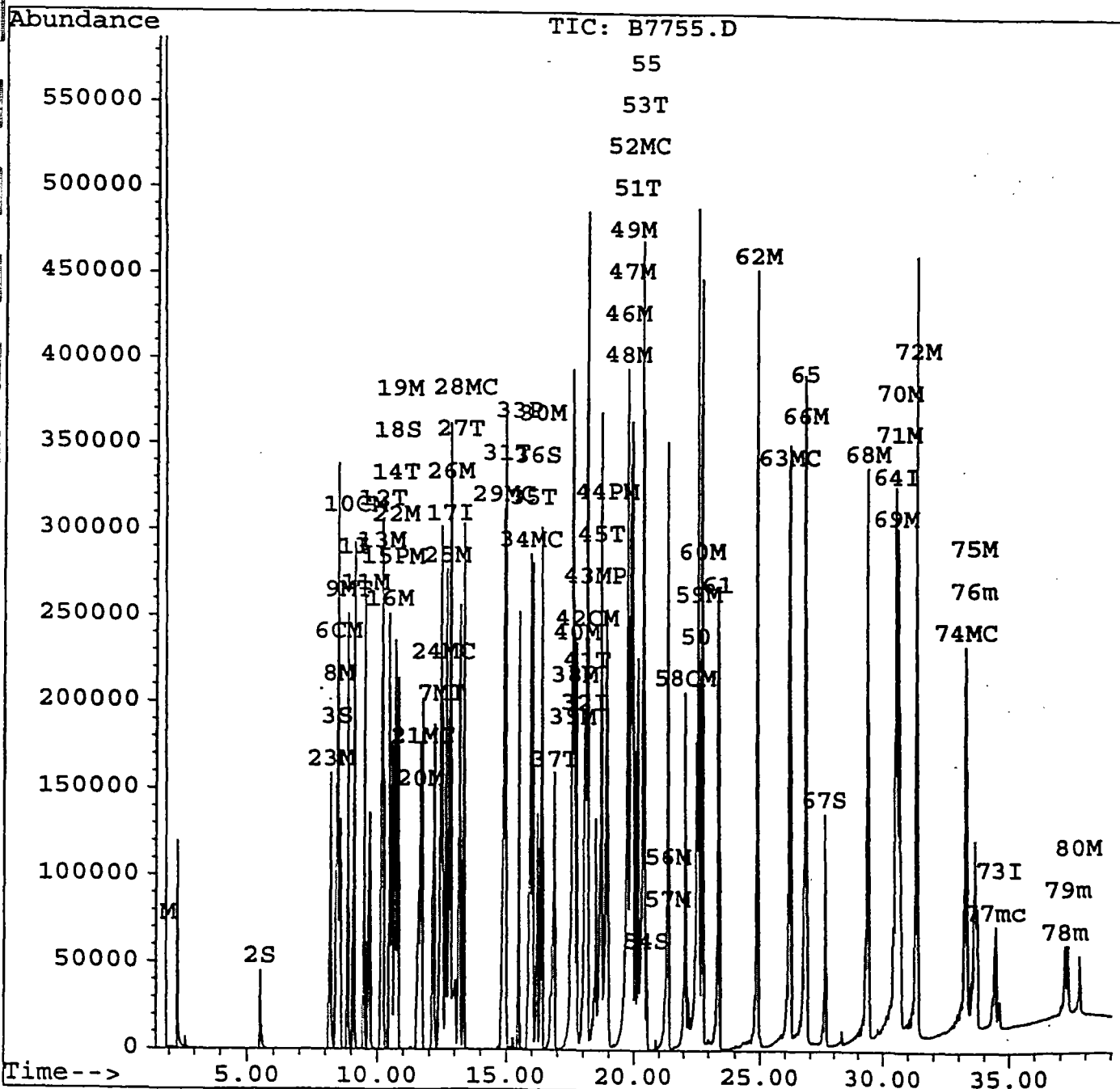
221

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Tue May 30 08:17:48 1995

Response via : Multiple Level Calibration



SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

222

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: B7802.D DFTPP Injection Date: 6/3/95  
Instrument ID: ABNA DFTPP Injection Time: 0953

| m/e | ION ABUNDANCE CRITERIA              | %RELATIVE ABUNDANCE |
|-----|-------------------------------------|---------------------|
| 51  | 30.0 - 80.0% of mass 198            | 53.6                |
| 68  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 69  | Mass 69 relative abundance          | 60.9                |
| 70  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 127 | 25.0 - 75.0% of mass 198            | 47.3                |
| 197 | Less than 1.0% of mass 198          | 0.0                 |
| 198 | Base Peak, 100 % relative abundance | 100.0               |
| 199 | 5.0 - 9.0% of mass 198              | 7.2                 |
| 275 | 10.0 - 30.0% of mass 198            | 22.9                |
| 365 | Greater than 0.75% of mass 198      | 2.8                 |
| 441 | Present, but less than mass 443     | 11.1                |
| 442 | 40.0 - 110.0% of mass 198           | 70.8                |
| 443 | 15.0 - 24.0% of mass 442            | 14.0 ( 19.8 )2      |

1-Value is % mass 69

2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | SSTD050    | 50 STD        | B7803.D     | 6/3/95        | 1013          |
| 02 | SBLK01     | BLANK1        | B7804.D     | 6/3/95        | 1104          |
| 03 | 9521072B   | 9521072B      | B7805.D     | 6/3/95        | 1154          |
| 04 | 9521073B   | 9521073B      | B7806.D     | 6/3/95        | 1244          |
| 05 | SBLK02     | BLANK2        | B7807.D     | 6/3/95        | 1334          |
| 06 | 9522265B   | 9522265B      | B7808.D     | 6/3/95        | 1424          |
| 07 | 9522845B   | 9522845B      | B7809.D     | 6/3/95        | 1515          |
| 08 | SBLK03     | BLANK3        | B7810.D     | 6/3/95        | 1606          |
| 09 | 9523339B   | 9523339B      | B7811.D     | 6/3/95        | 1656          |
| 10 | 9523341B   | 9523341B      | B7812.D     | 6/3/95        | 1747          |
| 11 | 9523342B   | 9523342B      | B7813.D     | 6/3/95        | 1838          |
| 12 | 9523343B   | 9523343B      | B7814.D     | 6/3/95        | 1928          |
| 13 | 9523530B   | 9523530B      | B7815.D     | 6/3/95        | 2018          |
| 14 | 9523531B   | 9523531B      | B7816.D     | 6/3/95        | 2108          |
| 15 | 9523533B   | 9523533B      | B7817.D     | 6/3/95        | 2158          |
| 16 | 9523534B   | 9523534B      | B7818.D     | 6/3/95        | 2248          |
| 17 | 9523535B   | 9523535B      | B7819.D     | 6/3/95        | 2337          |
| 18 | 9523536B   | 9523536B      | B7820.D     | 6/4/95        | 0027          |
| 19 | SBLK04     | BLANK4        | B7821.D     | 6/4/95        | 0117          |
| 20 | 9523789B   | 9523789B      | B7822.D     | 6/4/95        | 0206          |
| 21 | 9523792B   | 9523792B      | B7823.D     | 6/4/95        | 0256          |
| 22 | 9523787B   | 9523787B      | B7824.D     | 6/4/95        | 0346          |

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

223

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: B7802.D DFTPP Injection Date: 6/3/95  
Instrument ID: ABNA DFTPP Injection Time: 0953

| m/e | ION ABUNDANCE CRITERIA              | %RELATIVE ABUNDANCE |
|-----|-------------------------------------|---------------------|
| 51  | 30.0 - 80.0% of mass 198            | 53.6                |
| 68  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 69  | Mass 69 relative abundance          | 60.9                |
| 70  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 127 | 25.0 - 75.0% of mass 198            | 47.3                |
| 197 | Less than 1.0% of mass 198          | 0.0                 |
| 198 | Base Peak, 100 % relative abundance | 100.0               |
| 199 | 5.0 - 9.0% of mass 198              | 7.2                 |
| 275 | 10.0 - 30.0% of mass 198            | 22.9                |
| 365 | Greater than 0.75% of mass 198      | 2.8                 |
| 441 | Present, but less than mass 443     | 11.1                |
| 442 | 40.0 - 110.0% of mass 198           | 70.8                |
| 443 | 15.0 - 24.0% of mass 442            | 14.0 ( 19.8 )2      |

1-Value is % mass 69

2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | SBLK05     | BLANK5        | B7825.D     | 6/4/95        | 0435          |
| 02 | 22654MS    | 22654MS       | B7826.D     | 6/4/95        | 0525          |
| 03 | 22654MSD   | 22654MSD      | B7827.D     | 6/4/95        | 0615          |
| 04 | 22659MS    | 22659MS       | B7828.D     | 6/4/95        | 0704          |
| 05 | 22659MSD   | 22659MSD      | B7829.D     | 6/4/95        | 0754          |
| 06 |            |               |             |               |               |
| 07 |            |               |             |               |               |
| 08 |            |               |             |               |               |
| 09 |            |               |             |               |               |
| 10 |            |               |             |               |               |
| 11 |            |               |             |               |               |
| 12 |            |               |             |               |               |
| 13 |            |               |             |               |               |
| 14 |            |               |             |               |               |
| 15 |            |               |             |               |               |
| 16 |            |               |             |               |               |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |

Data File : C:\HPCHEM\1\DATA2\B7802.D

Acq On : 3 Jun 95 9:53 am

Vial: 1

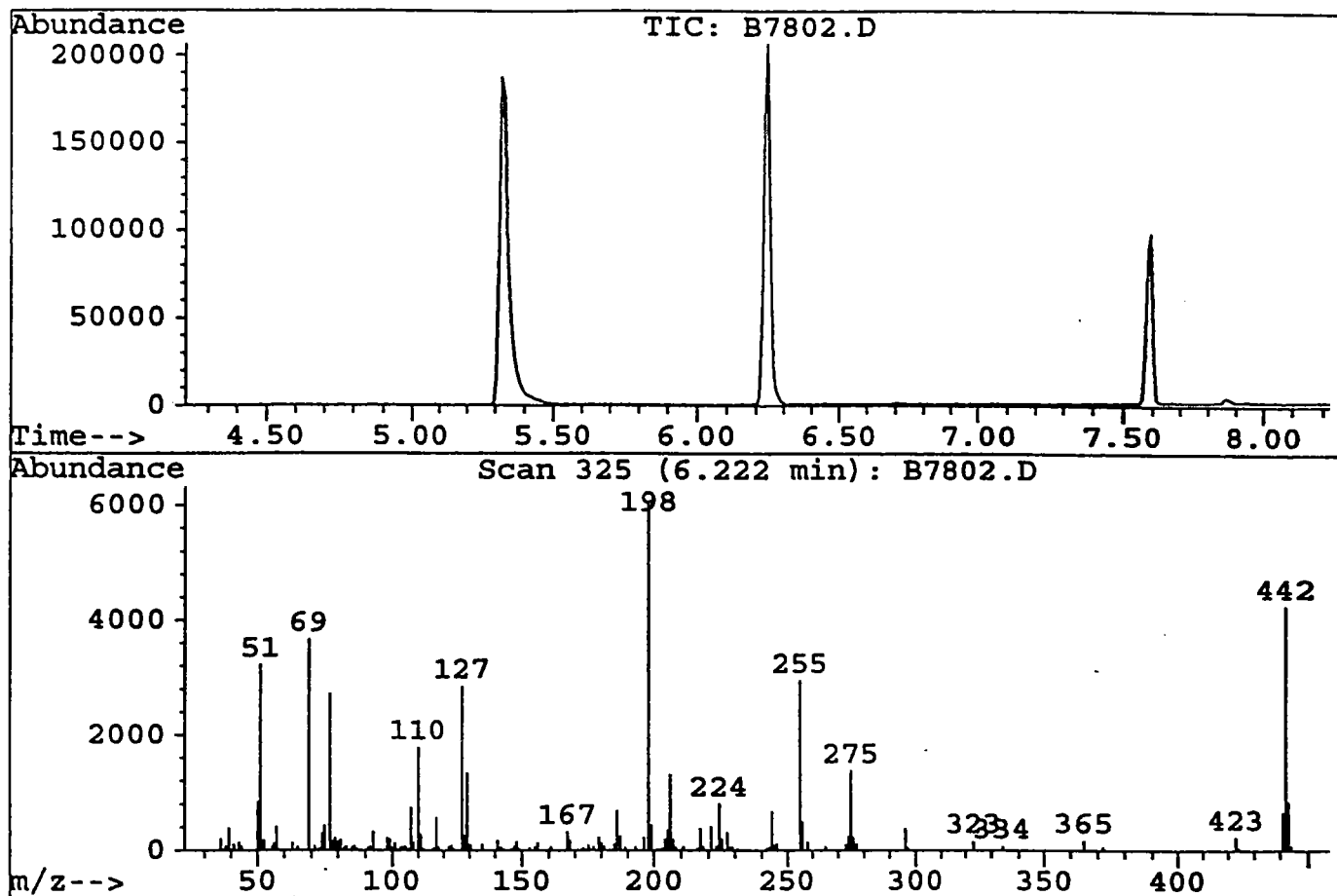
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 325

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 53.6      | 3226    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 60.9      | 3667    | PASS             |
| 70          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 47.3      | 2846    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 6021    | PASS             |
| 199         | 198          | 5            | 9            | 7.2       | 434     | PASS             |
| 275         | 198          | 10           | 30           | 22.9      | 1379    | PASS             |
| 365         | 198          | 1            | 100          | 2.8       | 170     | PASS             |
| 441         | 443          | 0            | 100          | 79.3      | 669     | PASS             |
| 442         | 198          | 40           | 100          | 70.8      | 4261    | PASS             |
| 443         | 442          | 17           | 23           | 19.8      | 844     | PASS             |

Scan 325 (6.222 min): B7802.D

FTPP..... Converted from RTE data file &gt;B7802::D5

| m/z   | abund. | m/z   | abund. | m/z   | abund. | m/z    | abund. |
|-------|--------|-------|--------|-------|--------|--------|--------|
| 36.10 | 195    | 57.05 | 413    | 79.95 | 160    | 99.05  | 186    |
| 37.90 | 74     | 63.05 | 134    | 81.05 | 193    | 100.05 | 51     |
| 39.10 | 386    | 65.05 | 66     | 81.95 | 54     | 100.95 | 118    |
| 41.05 | 94     | 68.95 | 3667   | 82.95 | 76     | 102.95 | 50     |
| 43.05 | 140    | 71.15 | 74     | 85.05 | 67     | 103.95 | 70     |
| 43.95 | 71     | 73.05 | 38     | 85.95 | 78     | 105.05 | 69     |
| 50.05 | 844    | 74.05 | 294    | 87.05 | 29     | 106.15 | 34     |
| 51.05 | 3226   | 74.95 | 427    | 90.95 | 51     | 107.05 | 746    |
| 52.05 | 179    | 77.05 | 2720   | 92.05 | 75     | 107.95 | 136    |
| 55.15 | 74     | 78.05 | 169    | 92.95 | 316    | 109.95 | 1785   |
| 55.95 | 133    | 79.05 | 215    | 98.05 | 224    | 111.05 | 275    |

Scan 325 (6.222 min): B7802.D

FTPP..... Converted from RTE data file &gt;B7802::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 111.85 | 36     | 134.90 | 114    | 160.00 | 39     | 186.00 | 683    |
| 116.05 | 42     | 140.90 | 173    | 161.00 | 63     | 187.00 | 242    |
| 117.05 | 564    | 142.10 | 53     | 167.00 | 318    | 188.90 | 51     |
| 118.05 | 51     | 142.90 | 34     | 168.00 | 162    | 193.00 | 70     |
| 121.90 | 66     | 145.90 | 30     | 173.00 | 42     | 196.10 | 225    |
| 123.00 | 89     | 147.00 | 83     | 175.00 | 88     | 198.00 | 6021   |
| 123.90 | 35     | 147.90 | 160    | 177.00 | 64     | 199.00 | 434    |
| 127.00 | 2846   | 149.00 | 36     | 179.00 | 216    | 201.65 | 29     |
| 128.10 | 250    | 152.90 | 50     | 180.00 | 127    | 202.95 | 41     |
| 128.90 | 1336   | 155.00 | 69     | 180.90 | 71     | 203.95 | 197    |
| 130.10 | 102    | 156.00 | 130    | 185.00 | 110    | 205.05 | 353    |

Scan 325 (6.222 min): B7802.D

FTPP..... Converted from RTE data file &gt;B7802::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 206.05 | 1320   | 224.95 | 192    | 255.95 | 487    | 334.00 | 73     |
| 207.05 | 189    | 226.95 | 305    | 258.05 | 143    | 364.95 | 170    |
| 207.95 | 55     | 227.95 | 55     | 264.95 | 68     | 372.05 | 67     |
| 210.15 | 33     | 228.85 | 61     | 272.95 | 102    | 423.05 | 224    |
| 211.05 | 66     | 231.05 | 37     | 274.05 | 239    | 423.95 | 49     |
| 216.15 | 46     | 242.05 | 44     | 275.05 | 1379   | 441.00 | 669    |
| 216.95 | 373    | 243.05 | 52     | 276.05 | 219    | 442.00 | 4261   |
| 217.95 | 69     | 244.05 | 676    | 277.05 | 109    | 443.00 | 844    |
| 220.95 | 411    | 245.05 | 91     | 296.00 | 378    | 444.00 | 72     |
| 222.95 | 81     | 245.95 | 117    | 297.00 | 45     |        |        |
| 224.05 | 802    | 255.05 | 2950   | 323.10 | 156    |        |        |

## Quantitation Report

226

Data File : C:\HPCHEM\1\DATA2\B7802.D

Acq On : 3 Jun 95 9:53 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

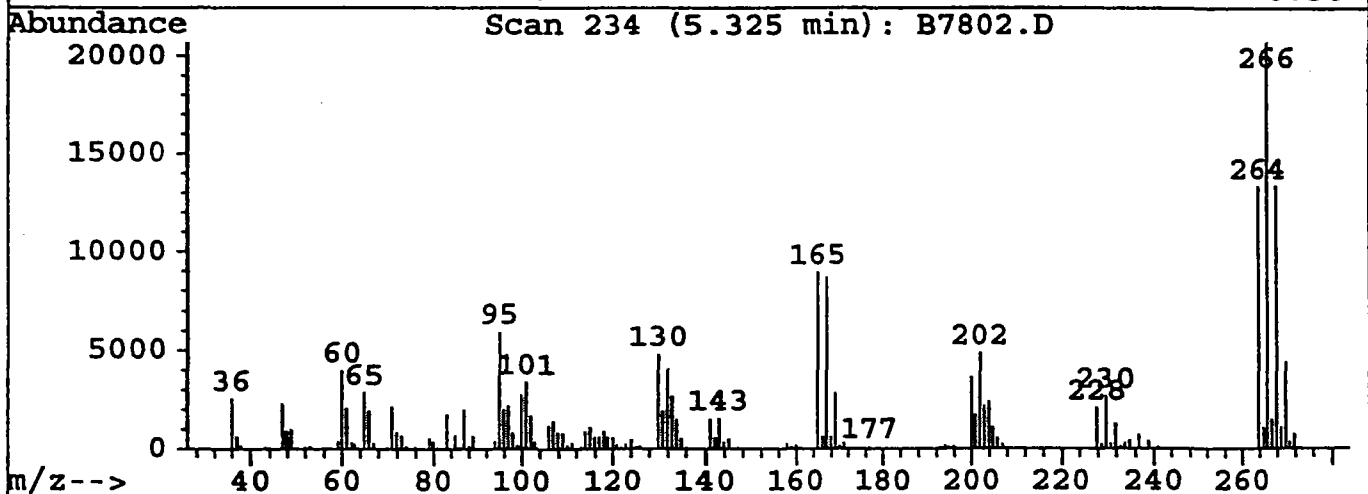
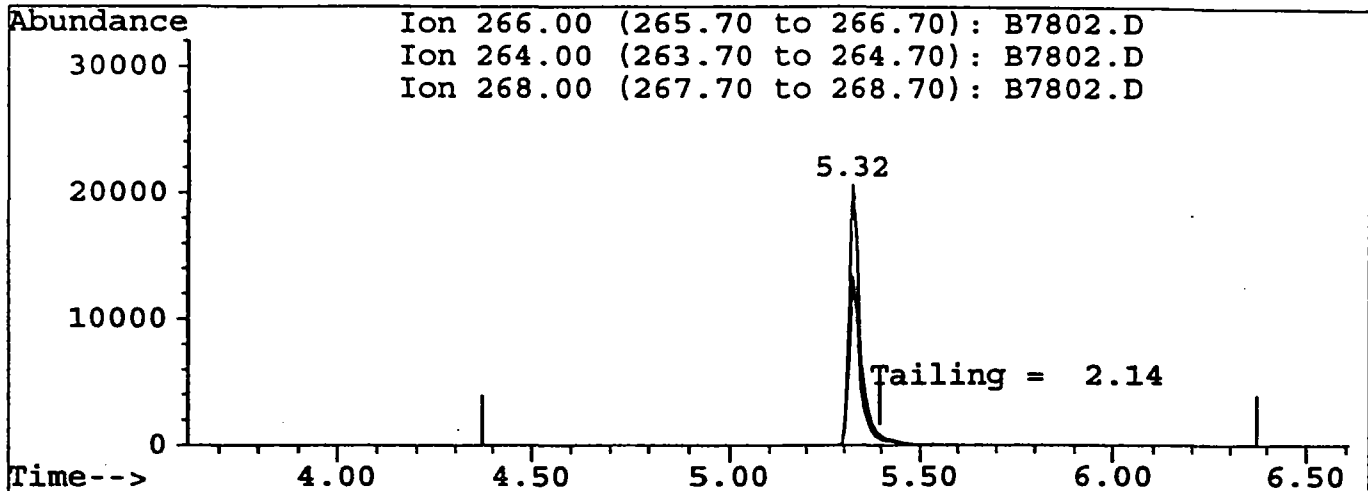
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



TIC: B7802.D

(1) Pentachlorophenol (CM)

5.32min 133.02ug/mL

response 43936

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 64.30 |
| 268.00 | 64.70 | 64.53 |
| 0.00   | 0.00  | 0.00  |

## Quantitation Report

227

Data File : C:\HPCHEM\1\DATA2\B7802.D

Acq On : 3 Jun 95 9:53 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

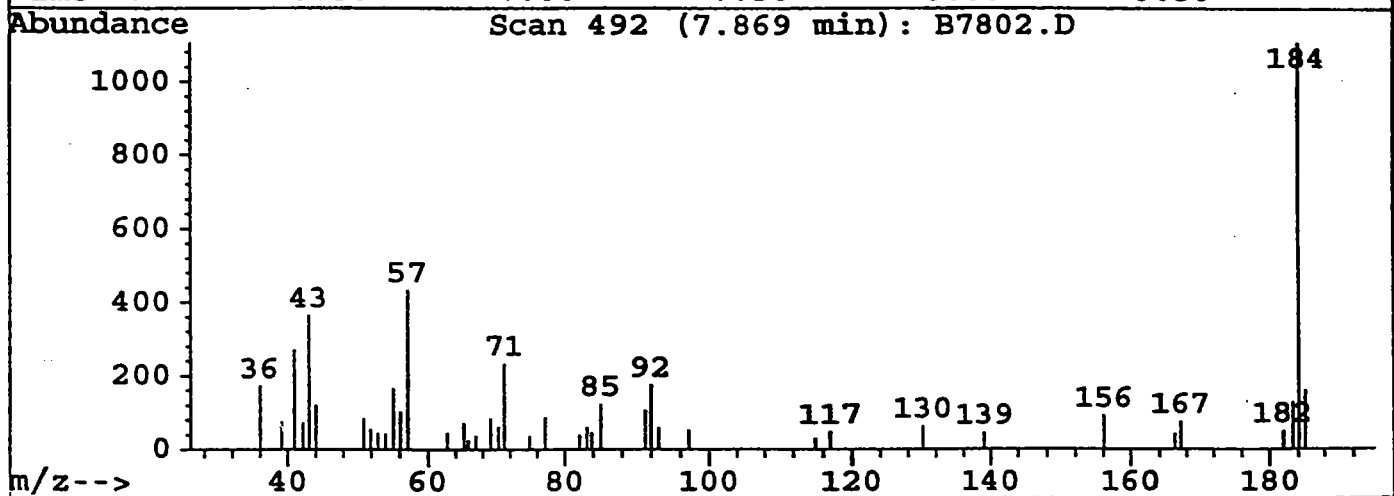
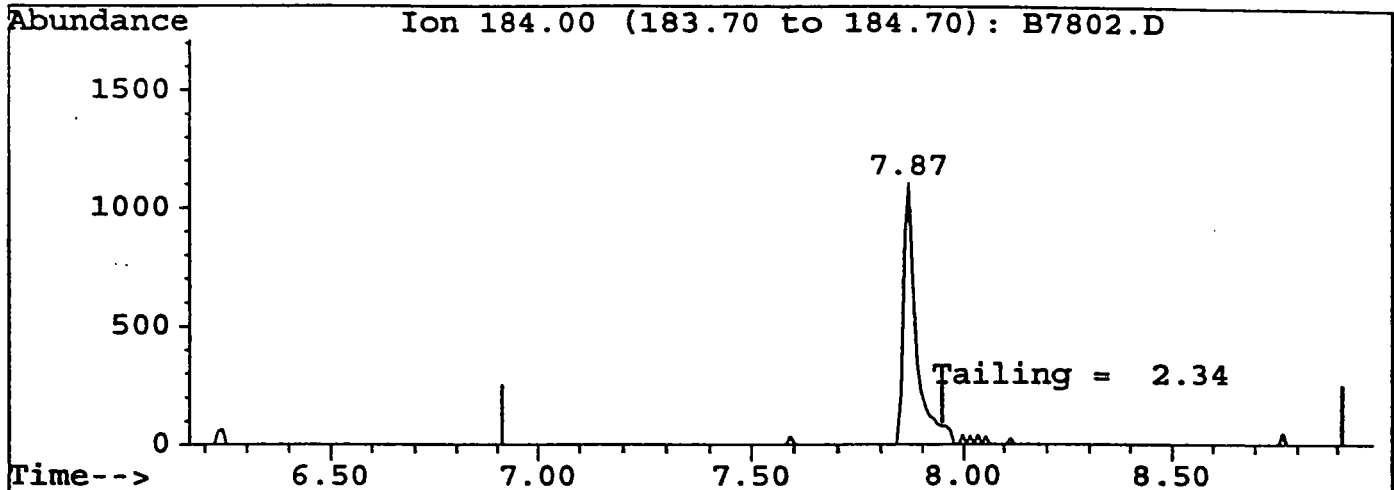
Quant Time: Jun 3 9:06 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



TIC: B7802.D

(2) Benzidine

7.87min 7.97ug/ml

response 2449

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

228

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: ABNACalibration Date: 6/3/95Time: 1013Lab File ID: B7803.DInit. Calib. Date(s): 6/3/95 1/0/00Init. Calib. Times: 1013 0000

| COMPOUND                    | RRF   | RRF50 | MIN RRF | %D    | MAX %D |
|-----------------------------|-------|-------|---------|-------|--------|
| bis(2-Chloroethyl)ether     | 2.026 | 2.027 |         | 0.0   |        |
| 1,3-Dichlorobenzene         | 1.385 | 1.449 |         | -4.6  |        |
| 1,4-Dichlorobenzene         | 1.429 | 1.500 |         | -5.0  | 30.0   |
| 1,2-Dichlorobenzene         | 1.357 | 1.424 |         | -4.9  |        |
| bis(2-chloroisopropyl)ether | 1.868 | 1.769 |         | 5.3   |        |
| N-Nitroso-Di-n-propylamine  | 1.346 | 1.315 | 0.050   | 2.3   |        |
| Hexachloroethane            | 0.737 | 0.736 |         | 0.1   |        |
| Nitrobenzene                | 0.424 | 0.446 |         | -5.2  |        |
| Isophorone                  | 0.893 | 0.814 |         | 8.8   |        |
| bis(2-Chloroethoxy)methane  | 0.456 | 0.453 |         | 0.7   |        |
| 1,2,4-Trichlorobenzene      | 0.317 | 0.332 |         | -4.7  |        |
| Naphthalene                 | 0.979 | 1.023 |         | -4.5  |        |
| 4-Chloroaniline             | 0.463 | 0.464 |         | -0.2  |        |
| Hexachlorobutadiene         | 0.185 | 0.191 |         | -3.2  | 30.0   |
| 2-Methylnaphthalene         | 0.786 | 0.742 |         | 5.6   |        |
| Hexachlorocyclopentadiene   | 0.278 | 0.250 | 0.050   | 10.1  |        |
| 2-Chloronaphthalene         | 0.696 | 0.716 |         | -2.9  |        |
| 2-Nitroaniline              | 0.549 | 0.487 |         | 11.3  |        |
| Dimethylphthalate           | 1.299 | 1.277 |         | 1.7   |        |
| Acenaphthylene              | 1.704 | 1.652 |         | 3.1   |        |
| 2,6-Dinitrotoluene          | 0.310 | 0.301 |         | 2.9   |        |
| 3-Nitroaniline              | 0.346 | 0.344 |         | 0.6   |        |
| Acenaphthene                | 1.025 | 1.040 |         | -1.5  | 30.0   |
| Dibenzofuran                | 1.609 | 1.625 |         | -1.0  |        |
| 2,4-Dinitrotoluene          | 1.167 | 1.125 |         | 3.6   |        |
| Diethylphthalate            | 1.443 | 1.376 |         | 4.6   |        |
| Fluorene                    | 1.259 | 1.219 |         | 3.2   |        |
| 4-Chlorophenyl-phenylether  | 0.596 | 0.628 |         | -5.4  |        |
| 4-Nitroaniline              | 0.166 | 0.194 |         | -16.9 |        |
| n-Nitrosodiphenylamine      | 0.508 | 0.502 |         | 1.2   |        |
| 4-Bromophenyl-phenylether   | 0.206 | 0.219 |         | -6.3  |        |
| Hexachlorobenzene           | 0.215 | 0.232 |         | -7.9  |        |
| Phenanthrene                | 1.094 | 1.129 |         | -3.2  |        |
| Anthracene                  | 1.009 | 1.064 |         | -5.5  |        |
| Carbazole                   | 0.944 | 1.015 |         | -7.5  |        |
| Di-n-butylphthalate         | 1.606 | 1.633 |         | -1.7  |        |
| Fluoranthene                | 1.035 | 1.139 |         | -10.0 | 30.0   |

All other compounds must meet a minimum RRF of 0.010.



**Contract:**

**Site:**

**Location:**

**Group:**

Calibration Date: 6/3/95

Time: 1013

Init. Calib. Date(s): 6/3/95 1/0/00

Init. Calib. Times: 1013 0000

| COMPOUND                   | R <sub>RF</sub> | R <sub>RF50</sub> | MIN<br>R <sub>RF</sub> | %D   | MAX<br>%D |
|----------------------------|-----------------|-------------------|------------------------|------|-----------|
| Pyrene                     | 1.502           | 1.240             |                        | 17.4 |           |
| Butylbenzylphthalate       | 0.962           | 0.769             |                        | 20.1 |           |
| Benzo[a]anthracene         | 1.516           | 1.300             |                        | 14.2 |           |
| 3,3'-Dichlorobenzidine     | 0.386           | 0.357             |                        | 7.5  |           |
| Chrysene                   | 0.843           | 0.806             |                        | 4.4  |           |
| bis(2-Ethylhexyl)phthalate | 1.364           | 1.148             |                        | 15.8 |           |
| Di-n-octylphthalate        | 5.094           | 4.570             |                        | 10.3 | 30.0      |
| Benzo[b]fluoranthene       | 2.467           | 2.153             |                        | 12.7 |           |
| Benzo[k]fluoranthene       | 1.190           | 1.273             |                        | -7.0 |           |
| Benzo[a]pyrene             | 1.227           | 1.266             |                        | -3.2 | 30.0      |
| Indeno[1,2,3-cd]pyrene     | 0.452           | 0.458             |                        | -1.3 |           |
| Dibenz[a,h]anthracene      | 0.436           | 0.384             |                        | 11.9 |           |
| Benzo[g,h,i]perylene       | 0.356           | 0.291             |                        | 18.3 |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
|                            |                 |                   |                        |      |           |
| Nitrobenzene-d5            | 0.456           | 0.443             |                        | 2.9  |           |
| 2-Fluorobiphenyl           | 1.200           | 1.187             |                        | 1.1  |           |
| Terphenyl-d14              | 1.062           | 0.881             |                        | 17.0 |           |

**All other compounds must meet a minimum RRF of 0.010.**

Data File : C:\HPCHEM\1\DATA2\B7803.D

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF   | %Dev   | Area% | Dev(Min) |
|-------|-----------------------------|-------|--------|--------|-------|----------|
| 1 I   | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000  | 0.0    | 99    | 0.18     |
| 2 S   | 2-Fluorophenol              | 1.131 | 1.044  | 7.7    | 96    | 0.16     |
| 3 S   | Phenol-d5                   | 1.873 | 1.712  | 8.6    | 98    | 0.14     |
| 4 M   | N-nitrosodimethylamine      | 0.578 | 0.585  | -1.1   | 79    | -0.10    |
| 5     | Pyridine                    | 0.428 | 0.000# | 100.0# | 0#    | -1.62#   |
| 6 CM  | Phenol                      | 1.668 | 1.607  | 3.7    | 93    | 0.14     |
| 7 MT  | bis(2-Chloroethyl)ether     | 2.026 | 2.027  | -0.1   | 98    | 0.18     |
| 8 M   | 2-Chlorophenol              | 1.269 | 1.290  | -1.6   | 102   | 0.16     |
| 9 MT  | 1,3-Dichlorobenzene         | 1.385 | 1.449  | -4.6   | 101   | 0.18     |
| 10 CM | 1,4-Dichlorobenzene         | 1.429 | 1.500  | -5.0   | 101   | 0.18     |
| 11 M  | 1,2-Dichlorobenzene         | 1.357 | 1.424  | -4.9   | 102   | 0.18     |
| 12 T  | 2-Methylphenol              | 1.204 | 1.299  | -7.9   | 110   | 0.66#    |
| 13 M  | bis(2-chloroisopropyl)ether | 1.868 | 1.769  | 5.3    | 101   | 0.20     |
| 14 T  | 4-Methylphenol              | 1.322 | 1.299  | 1.7    | 98    | 0.16     |
| 15 PM | N-Nitroso-Di-n-propylamine  | 1.346 | 1.315  | 2.3    | 102   | 0.18     |
| 16 M  | Hexachloroethane            | 0.737 | 0.736  | 0.1    | 97    | 0.19     |
| 17 I  | Naphthalene-d8              | 1.000 | 1.000  | 0.0    | 94    | 0.18     |
| 18 S  | Nitrobenzene-d5             | 0.456 | 0.443  | 2.8    | 96    | 0.18     |
| 19 M  | Nitrobenzene                | 0.424 | 0.446  | -5.2   | 96    | 0.18     |
| 20 M  | Isophorone                  | 0.893 | 0.814  | 8.8    | 94    | 0.16     |
| 21 MC | 2-Nitrophenol               | 0.210 | 0.202  | 4.2    | 95    | 0.20     |
| 22 M  | 2,4-Dimethylphenol          | 0.394 | 0.392  | 0.4    | 97    | 0.16     |
| 23 M  | bis(2-Chloroethoxy)methane  | 0.456 | 0.453  | 0.7    | 94    | 0.16     |
| 24 MC | 2,4-Dichlorophenol          | 0.298 | 0.301  | -0.8   | 97    | 0.18     |
| 25 M  | 1,2,4-Trichlorobenzene      | 0.317 | 0.332  | -4.7   | 97    | 0.18     |
| 26 M  | Naphthalene                 | 0.979 | 1.023  | -4.5   | 100   | 0.20     |
| 27 T  | 4-Chloroaniline             | 0.463 | 0.464  | -0.1   | 93    | 0.20     |
| 28 MC | Hexachlorobutadiene         | 0.185 | 0.191  | -3.3   | 97    | 0.18     |
| 29 MC | 4-Chloro-3-methylphenol     | 0.384 | 0.376  | 2.0    | 92    | 0.18     |
| 30 M  | 2-Chloronaphthalene         | 0.696 | 0.716  | -2.8   | 96    | 0.21     |
| 31 T  | 2-Methylnaphthalene         | 0.786 | 0.742  | 5.5    | 100   | 0.19     |
| 32 I  | Acenaphthene-d10            | 1.000 | 1.000  | 0.0    | 99    | 0.21     |
| 33 P  | Hexachlorocyclopentadiene   | 0.278 | 0.250  | 10.3   | 95    | 0.19     |
| 34 MC | 2,4,6-Trichlorophenol       | 0.415 | 0.353  | 15.0   | 91    | 0.20     |
| 35 T  | 2,4,5-Trichlorophenol       | 0.324 | 0.384  | -18.4  | 102   | 0.19     |
| 36 S  | 2-Fluorobiphenyl            | 1.200 | 1.187  | 1.1    | 99    | 0.19     |
| 37 T  | 2-Nitroaniline              | 0.549 | 0.487  | 11.3   | 83    | 0.19     |
| 38 M  | Dimethylphthalate           | 1.299 | 1.277  | 1.8    | 97    | 0.19     |
| 39 M  | Acenaphthylene              | 1.704 | 1.652  | 3.1    | 95    | 0.21     |
| 40 M  | 2,6-Dinitrotoluene          | 0.310 | 0.301  | 2.8    | 91    | 0.21     |

(#)= Out of Range

B7803.D BNACLP.M

Wed Jun 07 09:32:50 1995

BNA

Page 1

## Evaluate Continuing Calibration Report

231

Data File : C:\HPCHEM\1\DATA2\B7803.D

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(Min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 41 T  | 3-Nitroaniline              | 0.346 | 0.344 | 0.6   | 94    | 0.21     |
| 42 CM | Acenaphthene                | 1.025 | 1.040 | -1.5  | 100   | 0.21     |
| 43 MP | 2,4-Dinitrophenol           | 0.172 | 0.164 | 4.8   | 104   | 0.21     |
| 44 PM | 4-Nitrophenol               | 0.166 | 0.160 | 3.5   | 94    | 0.19     |
| 45 T  | Dibenzofuran                | 1.609 | 1.625 | -1.0  | 96    | 0.21     |
| 46 M  | 2,4-Dinitrotoluene          | 1.167 | 1.125 | 3.6   | 97    | 0.23     |
| 47 M  | Diethylphthalate            | 1.443 | 1.376 | 4.6   | 93    | 0.21     |
| 48 M  | Fluorene                    | 1.259 | 1.219 | 3.2   | 98    | 0.23     |
| 49 M  | 4-Chlorophenyl-phenylether  | 0.596 | 0.628 | -5.4  | 105   | 0.23     |
| 50    | Phenanthrene-d10            | 1.000 | 1.000 | 0.0   | 102   | 0.25     |
| 51 T  | 4-Nitroaniline              | 0.166 | 0.194 | -16.9 | 93    | 0.21     |
| 52 MC | 4,6-Dinitro-2-methylphenol  | 0.132 | 0.139 | -5.1  | 109   | 0.21     |
| 53 T  | n-Nitrosodiphenylamine      | 0.508 | 0.502 | 1.2   | 96    | 0.23     |
| 54 S  | 2,4,6-Tribromophenol        | 0.108 | 0.110 | -2.0  | 106   | 0.23     |
| 55    | 1,2-Diphenylhydrazine (as a | 1.211 | 1.189 | 1.8   | 92    | 0.23     |
| 56 M  | 4-Bromophenyl-phenylether   | 0.206 | 0.219 | -6.2  | 101   | 0.23     |
| 57 M  | Hexachlorobenzene           | 0.215 | 0.232 | -8.2  | 104   | 0.23     |
| 58 CM | Pentachlorophenol           | 0.137 | 0.160 | -16.2 | 122   | 0.23     |
| 59 M  | Phenanthrene                | 1.094 | 1.129 | -3.2  | 105   | 0.25     |
| 60 M  | Anthracene                  | 1.009 | 1.064 | -5.5  | 105   | 0.25     |
| 61    | Carbazole                   | 0.944 | 1.015 | -7.5  | 107   | 0.25     |
| 62 M  | Di-n-butylphthalate         | 1.606 | 1.633 | -1.6  | 102   | 0.23     |
| 63 MC | Fluoranthene                | 1.035 | 1.139 | -10.1 | 103   | 0.27     |
| 64 I  | Chrysene-d12                | 1.000 | 1.000 | 0.0   | 110   | 0.31     |
| 65    | Benzidine                   | 0.437 | 0.361 | 17.5  | 99    | 0.27     |
| 66 M  | Pyrene                      | 1.502 | 1.240 | 17.4  | 107   | 0.27     |
| 67 S  | Terphenyl-d14               | 1.062 | 0.881 | 17.1  | 110   | 0.27     |
| 68 M  | Butylbenzylphthalate        | 0.962 | 0.769 | 20.0  | 100   | 0.27     |
| 69 M  | Benzo[a]anthracene          | 1.516 | 1.300 | 14.2  | 106   | 0.31     |
| 70 M  | 3,3'-Dichlorobenzidine      | 0.386 | 0.357 | 7.5   | 111   | 0.29     |
| 71 M  | Chrysene                    | 0.843 | 0.806 | 4.4   | 115   | 0.31     |
| 72 M  | bis(2-Ethylhexyl)phthalate  | 1.364 | 1.148 | 15.8  | 101   | 0.27     |
| 73 I  | Perylene-d12                | 1.000 | 1.000 | 0.0   | 206#  | 0.30     |
| 74 MC | Di-n-octylphthalate         | 5.094 | 4.570 | 10.3  | 200#  | 0.27     |
| 75 M  | Benzo[b]fluoranthene        | 2.467 | 2.153 | 12.7  | 176#  | 0.30     |
| 76 m  | Benzo[k]fluoranthene        | 1.190 | 1.273 | -7.0  | 237#  | 0.31     |
| 77 mc | Benzo[a]pyrene              | 1.227 | 1.266 | -3.2  | 193#  | -0.51#   |
| 78 m  | Indeno[1,2,3-cd]pyrene      | 0.452 | 0.458 | -1.1  | 227#  | 0.26     |
| 79 m  | Dibenz[a,h]anthracene       | 0.436 | 0.384 | 11.8  | 217#  | 0.26     |

(# ) = Out of Range

B7803.D BNACLP.M

Wed Jun 07 09:33:02 1995

BNA

Page 2

# Evaluate Continuing Calibration Report

232

Data File : C:\HPCHEM\1\DATA2\B7803.D Vial: 2  
 Acq On : 3 Jun 95 10:13 am Operator: SCOTTV SUP  
 Sample : 50 STD..... Converted from RTE d Inst : ABNA  
 Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 10:06:36 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(Min) |
|------|-----------------------------|-------|--------|------|-------|----------|
| 80 M | Benzo[g,h,i]perylene        | 0.356 | 0.291  | 18.1 | 185#  | 0.26     |
| 81   | 1-Methyl naphthalene        | 0.000 | 0.000# | 0.0  | 0#    | -13.33#  |
| 82   | 7,12-Dimethylbenz(a)anthrac | 0.000 | 0.000# | 0.0  | 191#  | 0.30     |
| 83   | Quinoline                   | 0.000 | 0.000# | 0.0  | 95    | 0.20     |
| 84   | Thiophenol                  | 0.000 | 0.000# | 0.0  | 72    | 0.17     |
| 85   | 4-Methyl chrysene           | 0.000 | 0.000# | 0.0  | 118   | 0.31     |
| 86   | Dibenz(a,j)acridine         | 0.000 | 0.000# | 0.0  | 131   | 0.27     |
| 87   | Indene                      | 0.000 | 0.000# | 0.0  | 94    | 0.18     |

## Quantitation Report

Data File : c:\hpchem\1\data2\b7803.d

Vial: 2 233

Acq On : 3 Jun 95 10:13 am

Sample : 50 STD.....

Converted from RTE d

Operator: SCOTTV

Misc :

Inst : ABNA

Quant Time: Jun 7 9:32 1995

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.21  | 152  | 29236    | 40.00 | ug/mL | 0.18     |
| 17) Naphthalene-d8        | 12.92 | 136  | 116999   | 40.00 | ug/mL | 0.18     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 80656    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 134208   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.89 | 240  | 129676   | 40.00 | ug/mL | 0.31     |
| 73) Perylene-d12          | 34.90 | 264  | 93467    | 40.00 | ug/mL | 0.30     |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |       |       |        |
|--------------------------|-------|-----|--------|-------|-------|--------|
| 2) 2-Fluorophenol        | 5.63  | 112 | 38146  | 46.13 | ug/mL | 46.13% |
| 3) Phenol-d5             | 8.53  | 99  | 62550  | 45.70 | ug/mL | 45.70% |
| 18) Nitrobenzene-d5      | 10.88 | 82  | 64784  | 48.60 | ug/mL | 48.60% |
| 36) 2-Fluorobiphenyl     | 16.39 | 172 | 119643 | 49.45 | ug/mL | 49.45% |
| 54) 2,4,6-Tribromophenol | 20.69 | 330 | 18489  | 51.01 | ug/mL | 51.01% |
| 67) Terphenyl-d14        | 27.91 | 244 | 142742 | 41.47 | ug/mL | 41.47% |

## Target Compounds

Qvalue

|                                 |       |     |        |       |        |     |
|---------------------------------|-------|-----|--------|-------|--------|-----|
| 4) N-nitrosodimethylamine       | 1.85  | 74  | 21365  | 50.56 | ug/mLm | 100 |
| 6) Phenol                       | 8.57  | 94  | 58717  | 48.17 | ug/mL  | 100 |
| 7) bis(2-Chloroethyl) ether     | 12.60 | 93  | 74087  | 50.04 | ug/mL  | 96  |
| 8) 2-Chlorophenol               | 8.61  | 128 | 47149  | 50.82 | ug/mL  | 95  |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146 | 52942  | 52.30 | ug/mL  | 98  |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146 | 54825  | 52.49 | ug/mL  | 99  |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146 | 52051  | 52.46 | ug/mL  | 98  |
| 12) 2-Methylphenol              | 10.79 | 108 | 47472  | 53.93 | ug/mL  | 65  |
| 13) bis(2-chloroisopropyl) ethe | 10.28 | 45  | 64632  | 47.33 | ug/mL# | 1   |
| 14) 4-Methylphenol              | 10.79 | 108 | 47472  | 49.15 | ug/mL  | 99  |
| 15) N-Nitroso-Di-n-propylamine  | 10.67 | 70  | 48058  | 48.86 | ug/mL  | 91  |
| 16) Hexachloroethane            | 10.61 | 117 | 26915  | 49.93 | ug/mL  | 99  |
| 19) Nitrobenzene                | 10.94 | 77  | 65242  | 52.61 | ug/mL# | 89  |
| 20) Isophorone                  | 11.73 | 82  | 119099 | 45.58 | ug/mL  | 96  |
| 21) 2-Nitrophenol               | 11.88 | 139 | 29485  | 47.92 | ug/mL  | 98  |
| 22) 2,4-Dimethylphenol          | 10.79 | 107 | 57307  | 49.78 | ug/mL# | 32  |
| 23) bis(2-Chloroethoxy) methane | 8.32  | 93  | 66255  | 49.66 | ug/mL# | 42  |
| 24) 2,4-Dichlorophenol          | 12.65 | 162 | 43957  | 50.41 | ug/mL  | 97  |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180 | 48531  | 52.36 | ug/mL  | 98  |
| 26) Naphthalene                 | 13.00 | 128 | 149571 | 52.24 | ug/mL# | 91  |
| 27) 4-Chloroaniline             | 13.35 | 127 | 67787  | 50.05 | ug/mL  | 98  |
| 28) Hexachlorobutadiene         | 13.50 | 225 | 27957  | 51.65 | ug/mL  | 96  |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107 | 55034  | 49.01 | ug/mL  | 100 |
| 30) 2-Chloronaphthalene         | 16.58 | 162 | 104679 | 51.41 | ug/mL  | 99  |
| 31) 2-Methylnaphthalene         | 15.14 | 142 | 108545 | 47.23 | ug/mL  | 100 |
| 33) Hexachlorocyclopentadiene   | 15.66 | 237 | 25173  | 44.85 | ug/mL  | 96  |
| 34) 2,4,6-Trichlorophenol       | 16.10 | 196 | 35610  | 42.51 | ug/mL  | 99  |
| 35) 2,4,5-Trichlorophenol       | 16.20 | 196 | 38697  | 59.22 | ug/mL  | 100 |

(# ) = qualifier out of range (m) = manual integration

b7803.d BNACLP.M

Wed Jun 07 09:35:58 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7803.d

Vial: 2

Acq On : 3 Jun 95 10:13 am

Operator: SCOTTV

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 7 9:32 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 17.05 | 65   | 49104    | 44.34 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.82 | 163  | 128716   | 49.12 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.80 | 152  | 166597   | 48.47 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.91 | 165  | 30393    | 48.59 | ug/mL  | 97     |
| 41) 3-Nitroaniline             | 18.34 | 138  | 34672    | 49.71 | ug/mL  | 95     |
| 42) Acenaphthene               | 18.36 | 153  | 104858   | 50.73 | ug/mL  | 100    |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 16518    | 47.58 | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.13 | 109  | 16116    | 48.25 | ug/mL  | 89     |
| 45) Dibenzofuran               | 18.92 | 168  | 163832   | 50.51 | ug/mL  | 95     |
| 46) 2,4-Dinitrotoluene         | 19.96 | 165  | 113430   | 48.20 | ug/mL# | 32     |
| 47) Diethylphthalate           | 20.07 | 149  | 138770   | 47.70 | ug/mL  | 100    |
| 48) Fluorene                   | 19.96 | 166  | 122870   | 48.41 | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 63340    | 52.68 | ug/mL  | 93     |
| 51) 4-Nitroaniline             | 20.21 | 138  | 32609    | 58.46 | ug/mL  | 97     |
| 52) 4,6-Dinitro-2-methylphenol | 20.30 | 198  | 23243    | 52.57 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 84236    | 49.39 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.61 | 77   | 199476   | 49.08 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.59 | 248  | 36733    | 53.12 | ug/mL# | 89     |
| 57) Hexachlorobenzene          | 21.58 | 284  | 38977    | 54.11 | ug/mL  | 91     |
| 58) Pentachlorophenol          | 22.29 | 266  | 26808    | 58.11 | ug/mL  | 98     |
| 59) Phenanthrene               | 22.85 | 178  | 189424   | 51.58 | ug/mL  | 100    |
| 60) Anthracene                 | 23.00 | 178  | 178492   | 52.73 | ug/mLm | 99     |
| 61) Carbazole                  | 23.64 | 167  | 170215   | 53.76 | ug/ml  | 100    |
| 62) Di-n-butylphthalate        | 25.14 | 149  | 273873   | 50.81 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.47 | 202  | 191126   | 55.04 | ug/mLm | 95     |
| 65) Benzidine                  | 27.14 | 184  | 58486    | 41.24 | ug/mlm | 100    |
| 66) Pyrene                     | 27.10 | 202  | 200950   | 41.28 | ug/mLm | 87     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 124639   | 39.98 | ug/mL  | 95     |
| 69) Benzo[a]anthracene         | 30.87 | 228  | 210709   | 42.89 | ug/mLm | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 57942    | 46.26 | ug/mL  | 99     |
| 71) Chrysene                   | 30.96 | 228  | 130675   | 47.82 | ug/mLm | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 186121   | 42.09 | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 533971   | 44.86 | ug/mLm | 99     |
| 75) Benzo[b]fluoranthene       | 33.93 | 252  | 251584   | 43.65 | ug/mLm | 99     |
| 76) Benzo[k]fluoranthene       | 34.01 | 252  | 148737   | 53.49 | ug/mLm | 94     |
| 77) Benzo[a]pyrene             | 33.93 | 252  | 147880   | 51.60 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.43 | 276  | 53465    | 50.57 | ug/mLm | 89     |
| 79) Dibenz[a,h]anthracene      | 37.54 | 278  | 44917    | 44.12 | ug/mL  | 98     |
| 80) Benzo[g,h,i]perylene       | 38.01 | 276  | 34048    | 40.97 | ug/mLm | 98     |

(#) = qualifier out of range (m) = manual integration

Data File : c:\hpchem\1\data2\b7803.d

Acq On : 3 Jun 95 10:13 am

Sample : 50 STD.....

Misc :

Quant Time: Jun 7 9:32 1995

Vial: 2

Operator: SCOTTV

Converted from RTE d Inst : ABNA

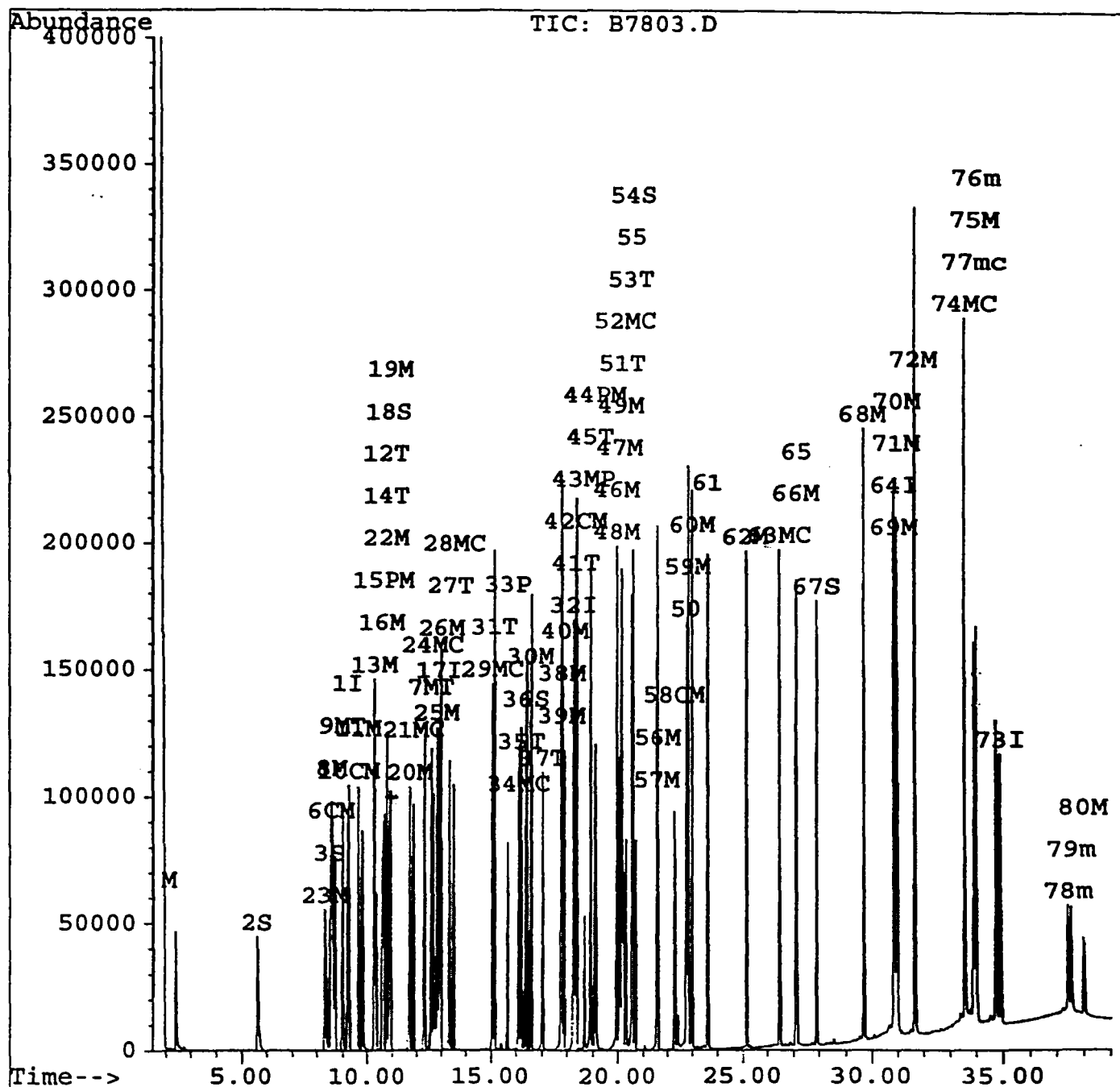
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Lab Name EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: B7980.D DFTPP Injection Date: 6/22/95Instrument ID: ABNA DFTPP Injection Time: 1355

| m/e | ION ABUNDANCE CRITERIA              | %RELATIVE ABUNDANCE |
|-----|-------------------------------------|---------------------|
| 51  | 30.0 - 80.0% of mass 198            | 50.6                |
| 68  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 69  | Mass 69 relative abundance          | 57.3                |
| 70  | Less than 2.0% of mass 69           | 0.0 ( 0.0 )1        |
| 127 | 25.0 - 75.0% of mass 198            | 44.9                |
| 197 | Less than 1.0% of mass 198          | 0.0                 |
| 198 | Base Peak, 100 % relative abundance | 100.0               |
| 199 | 5.0 - 9.0% of mass 198              | 6.6                 |
| 275 | 10.0 - 30.0% of mass 198            | 22.5                |
| 365 | Greater than 0.75% of mass 198      | 2.7                 |
| 441 | Present, but less than mass 443     | 8.8                 |
| 442 | 40.0 - 110.0% of mass 198           | 60.2                |
| 443 | 15.0 - 24.0% of mass 442            | 12.0 ( 19.9 )2      |

1-Value is % mass 69

2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

|    | SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|----|------------|---------------|-------------|---------------|---------------|
| 01 | SSTD050    | 50 STD        | B7981.D     | 6/22/95       | 1416          |
| 02 | SBLK01     | BLANK1        | B7984.D     | 6/22/95       | 1655          |
| 03 | 9526814B   | 9526814B      | B7985.D     | 6/22/95       | 1746          |
| 04 | 9526815B   | 9526815B      | B7986.D     | 6/22/95       | 1837          |
| 05 | 9526816B   | 9526816B      | B7987.D     | 6/22/95       | 1928          |
| 06 | 9526817B   | 9526817B      | B7988.D     | 6/22/95       | 2019          |
| 07 | SBLK02     | BLANK2        | B7989.D     | 6/22/95       | 2110          |
| 08 | 9526435B   | 9526435B      | B7990.D     | 6/22/95       | 2201          |
| 09 | 9526436B   | 9526436B      | B7991.D     | 6/22/95       | 2251          |
| 10 | 9526440B   | 9526440B      | B7992.D     | 6/22/95       | 2342          |
| 11 | 9526441B   | 9526441B      | B7993.D     | 6/23/95       | 0032          |
| 12 | 9526442B   | 9526442B      | B7994.D     | 6/23/95       | 0123          |
| 13 | 9526443B   | 9526443B      | B7995.D     | 6/23/95       | 0214          |
| 14 | 9526444B   | 9526444B      | B7996.D     | 6/23/95       | 0304          |
| 15 | 9526445B   | 9526445B      | B7997.D     | 6/23/95       | 0355          |
| 16 | 9526459B   | 9526459B      | B7998.D     | 6/23/95       | 0445          |
| 17 |            |               |             |               |               |
| 18 |            |               |             |               |               |
| 19 |            |               |             |               |               |
| 20 |            |               |             |               |               |
| 21 |            |               |             |               |               |
| 22 |            |               |             |               |               |



Data File : C:\HPCHEM\1\DATA2\B7980.D

Acq On : 22 Jun 95 1:55 pm

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

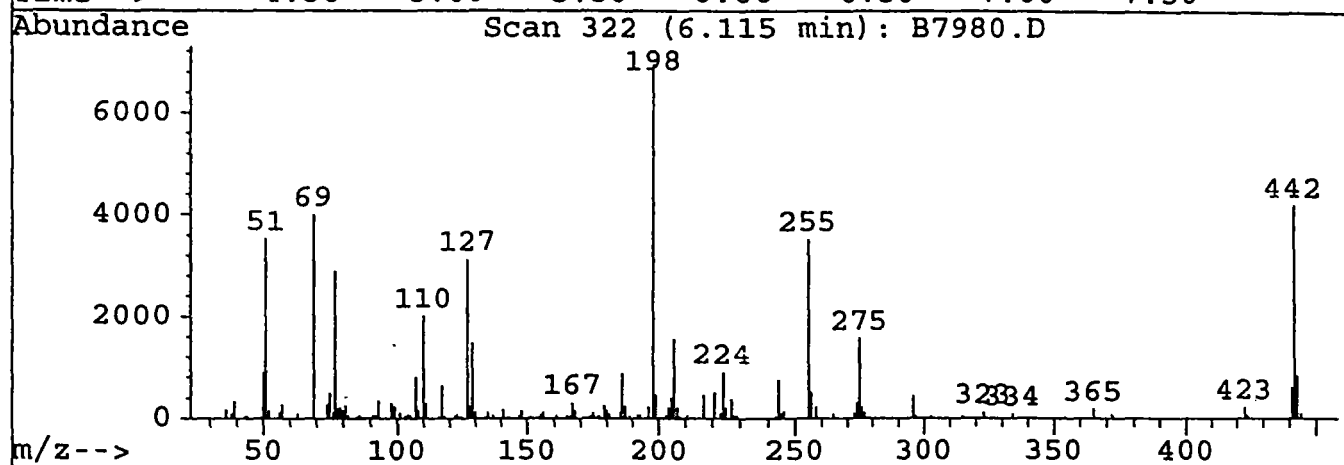
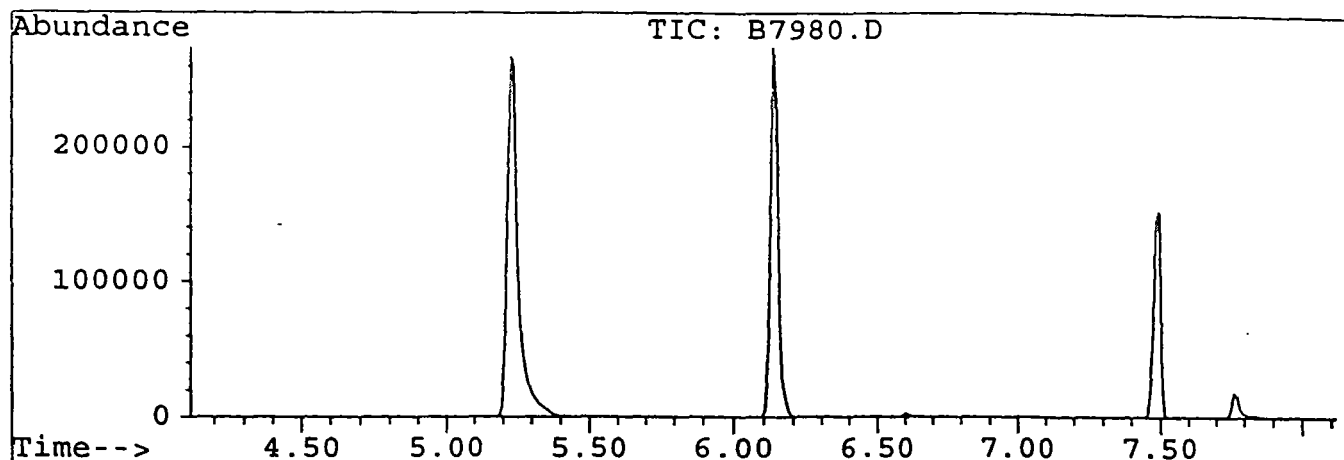
Vial: 1

Operator: SCOTTV

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

237



Peak Apex is scan: 322

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 50.6      | 3526    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 57.3      | 3996    | PASS             |
| 70          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 44.9      | 3128    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 6971    | PASS             |
| 199         | 198          | 5            | 9            | 6.6       | 457     | PASS             |
| 275         | 198          | 10           | 30           | 22.5      | 1570    | PASS             |
| 365         | 198          | 1            | 100          | 2.7       | 189     | PASS             |
| 441         | 443          | 0            | 100          | 73.2      | 612     | PASS             |
| 442         | 198          | 40           | 100          | 60.2      | 4196    | PASS             |
| 443         | 442          | 17           | 23           | 19.9      | 836     | PASS             |

..... Converted from RTE data file >B7980::D5

| m/z   | abund. | m/z   | abund. | m/z    | abund. | m/z    | abund. |
|-------|--------|-------|--------|--------|--------|--------|--------|
| 36.10 | 181    | 63.05 | 102    | 85.05  | 47     | 107.05 | 825    |
| 38.00 | 97     | 68.95 | 3996   | 85.95  | 75     | 108.05 | 152    |
| 39.10 | 349    | 74.05 | 282    | 90.95  | 68     | 108.95 | 41     |
| 43.05 | 50     | 75.05 | 506    | 92.05  | 65     | 110.05 | 2020   |
| 43.95 | 50     | 76.15 | 129    | 93.05  | 341    | 111.05 | 295    |
| 48.95 | 30     | 77.05 | 2889   | 98.05  | 290    | 116.05 | 57     |
| 50.05 | 906    | 77.95 | 211    | 99.05  | 225    | 117.05 | 636    |
| 51.05 | 3526   | 79.05 | 219    | 101.05 | 119    | 117.95 | 51     |
| 52.05 | 158    | 80.05 | 160    | 103.05 | 61     | 122.00 | 58     |
| 56.05 | 133    | 80.95 | 255    | 103.95 | 92     | 122.90 | 84     |
| 56.95 | 265    | 82.05 | 69     | 104.95 | 70     | 123.90 | 40     |

Scan 322 (6.115 min): B7980.D

TPP..... Converted from RTE data file >B7980::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 125.00 | 42     | 148.00 | 166    | 174.00 | 64     | 192.00 | 82     |
| 127.00 | 3128   | 151.30 | 33     | 175.00 | 113    | 193.00 | 72     |
| 128.00 | 249    | 154.00 | 44     | 176.10 | 41     | 196.10 | 235    |
| 129.00 | 1486   | 155.10 | 88     | 177.10 | 67     | 198.00 | 6971   |
| 129.90 | 126    | 156.10 | 131    | 179.00 | 255    | 199.00 | 457    |
| 134.00 | 40     | 161.00 | 78     | 180.00 | 172    | 200.10 | 32     |
| 135.00 | 122    | 164.90 | 73     | 181.00 | 87     | 201.55 | 37     |
| 137.00 | 65     | 166.10 | 52     | 185.10 | 124    | 202.95 | 73     |
| 141.00 | 179    | 167.00 | 313    | 186.00 | 879    | 204.05 | 229    |
| 142.80 | 34     | 168.00 | 158    | 187.10 | 242    | 205.05 | 415    |
| 147.10 | 70     | 173.00 | 39     | 189.00 | 67     | 206.05 | 1562   |

Scan 322 (6.115 min): B7980.D

DFTPP..... Converted from RTE data file >B7980::D5

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 207.05 | 218    | 228.95 | 69     | 275.05 | 1570   | 372.05 | 74     |
| 208.05 | 44     | 243.05 | 51     | 276.05 | 213    | 423.05 | 222    |
| 210.15 | 41     | 244.05 | 750    | 277.05 | 120    | 424.15 | 56     |
| 210.95 | 79     | 245.05 | 99     | 296.00 | 430    | 441.00 | 612    |
| 216.95 | 462    | 245.95 | 140    | 297.00 | 55     | 442.00 | 4196   |
| 221.05 | 511    | 255.05 | 3511   | 303.00 | 55     | 443.00 | 836    |
| 223.05 | 117    | 255.95 | 514    | 314.90 | 44     | 444.10 | 88     |
| 224.05 | 911    | 258.05 | 233    | 323.10 | 117    |        |        |
| 224.95 | 222    | 264.95 | 87     | 334.10 | 86     |        |        |
| 227.05 | 390    | 273.05 | 103    | 354.00 | 40     |        |        |
| 227.95 | 68     | 274.05 | 304    | 364.95 | 189    |        |        |

Data File : C:\HPCHEM\1\DATA2\B7980.D

Acq On : 22 Jun 95 1:55 pm

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 22 13:09 1995

Vial: 1 239

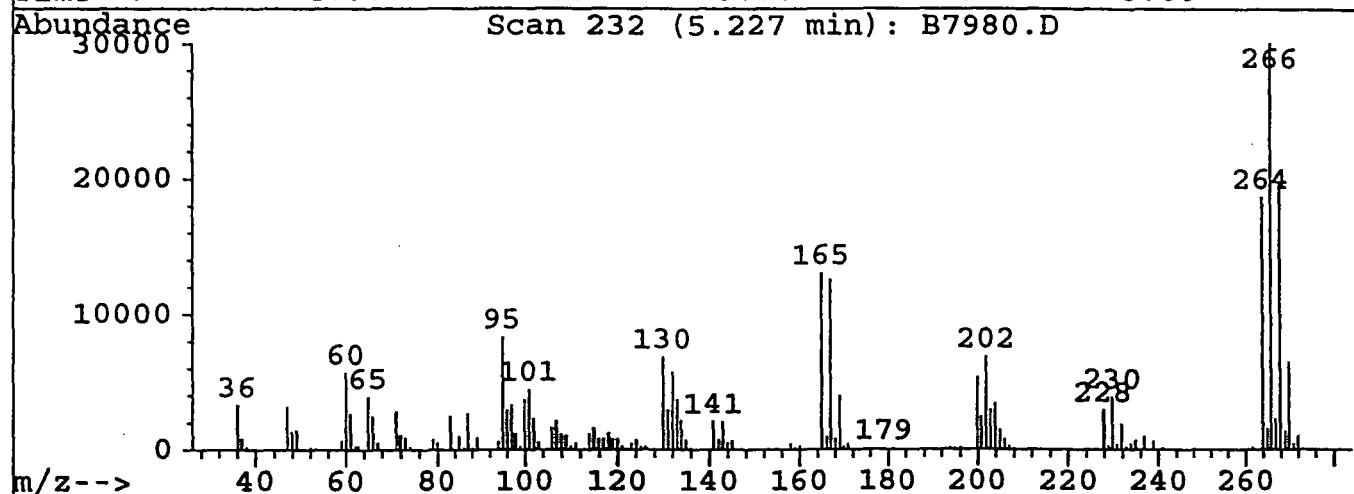
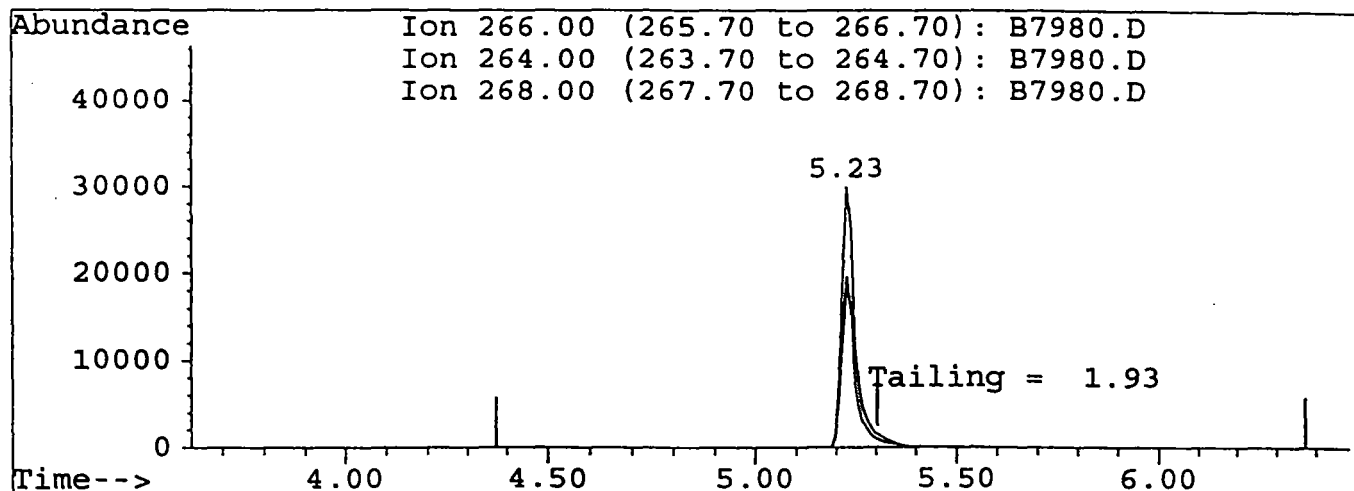
Operator: SCOTT

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



TIC: B7980.D

(1) Pentachlorophenol (CM)

5.23min 221.27ug/mL

response 73085

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 61.95 |
| 268.00 | 64.70 | 65.29 |
| 0.00   | 0.00  | 0.00  |

Data File : C:\HPCHEM\1\DATA2\B7980.D

Acq On : 22 Jun 95 1:55 pm

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 22 13:09 1995

Vial: 1 240

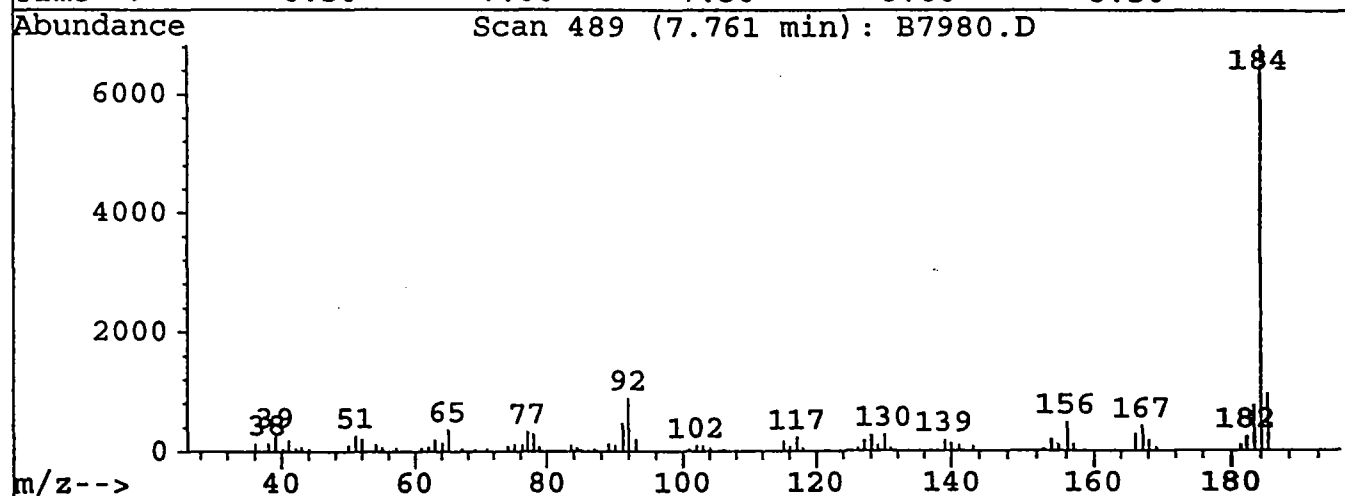
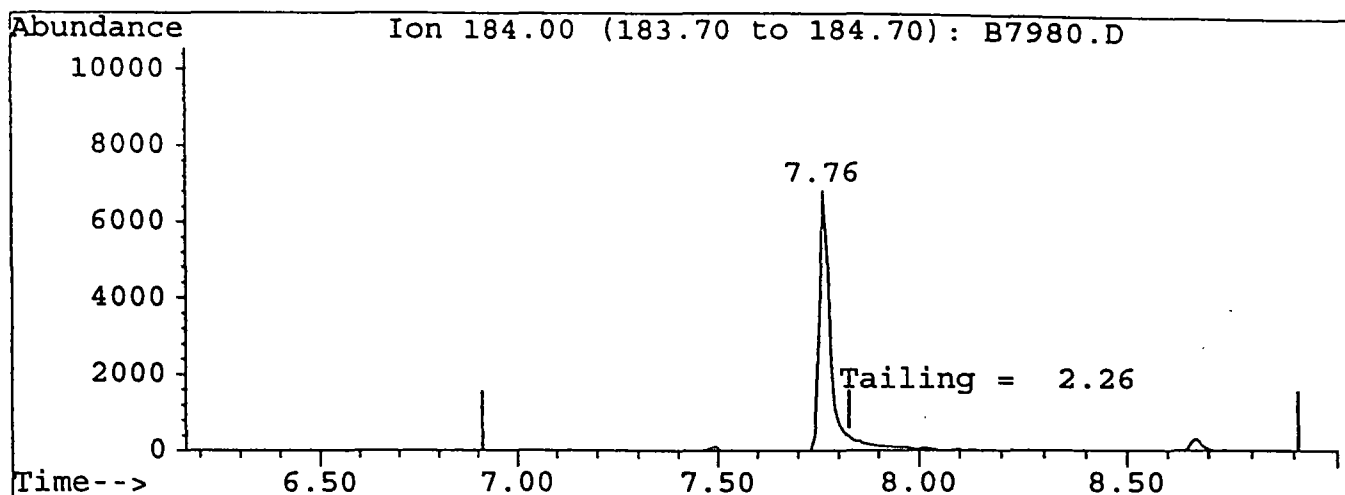
Operator: SCOTTV

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



TIC: B7980.D

(2) Benzidine

7.76min 44.17ug/ml

response 13568

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: ABNA Calibration Date: 6/22/95

Time: 1416

Lab File ID: B7981.D Init. Calib. Date(s): 6/22/95 1/0/00

Init. Calib. Times: 1416 0000

| COMPOUND                      | RRF   | RRF50 | MIN RRF | %D   | MAX %D |
|-------------------------------|-------|-------|---------|------|--------|
| N-nitrosodimethylamine        | 0.578 | 0.507 |         | 12.3 |        |
| bis(2-Chloroethyl)ether       | 2.026 | 1.958 |         | 3.4  |        |
| 1,3-Dichlorobenzene           | 1.385 | 1.420 |         | -2.5 |        |
| 1,4-Dichlorobenzene           | 1.429 | 1.438 |         | -0.6 | 30.0   |
| 1,2-Dichlorobenzene           | 1.357 | 1.390 |         | -2.4 |        |
| bis(2-chloroisopropyl)ether   | 1.868 | 1.723 |         | 7.8  |        |
| N-Nitroso-Di-n-propylamine    | 1.346 | 1.186 | 0.050   | 11.9 |        |
| Hexachloroethane              | 0.737 | 0.713 |         | 3.3  |        |
| Nitrobenzene                  | 0.424 | 0.407 |         | 4.0  |        |
| Isophorone                    | 0.893 | 0.760 |         | 14.9 |        |
| bis(2-Chloroethoxy)methane    | 0.456 | 0.423 |         | 7.2  |        |
| 1,2,4-Trichlorobenzene        | 0.317 | 0.325 |         | -2.5 |        |
| Naphthalene                   | 0.979 | 0.973 |         | 0.6  |        |
| Hexachlorobutadiene           | 0.185 | 0.184 |         | 0.5  | 30.0   |
| Hexachlorocyclopentadiene     | 0.278 | 0.260 | 0.050   | 6.5  |        |
| 2-Chloronaphthalene           | 0.696 | 0.672 |         | 3.4  |        |
| Dimethylphthalate             | 1.299 | 1.276 |         | 1.8  |        |
| Acenaphthylene                | 1.704 | 1.691 |         | 0.8  |        |
| 2,6-Dinitrotoluene            | 0.310 | 0.308 |         | 0.6  |        |
| Acenaphthene                  | 1.025 | 1.030 |         | -0.5 | 30.0   |
| 2,4-Dinitrotoluene            | 1.167 | 1.086 |         | 6.9  |        |
| Diethylphthalate              | 1.443 | 1.452 |         | -0.6 |        |
| Fluorene                      | 1.259 | 1.184 |         | 6.0  |        |
| 4-Chlorophenyl-phenylether    | 0.596 | 0.599 |         | -0.5 |        |
| n-Nitrosodiphenylamine        | 0.508 | 0.506 |         | 0.4  |        |
| 1,2-Diphenylhydrazine(as azo) | 0.000 | 0.000 |         |      |        |
| 4-Bromophenyl-phenylether     | 0.206 | 0.214 |         | -3.9 |        |
| Hexachlorobenzene             | 0.215 | 0.185 |         | 14.0 |        |
| Phenanthrene                  | 1.094 | 1.106 |         | -1.1 |        |
| Anthracene                    | 1.009 | 0.996 |         | 1.3  |        |
| Di-n-butylphthalate           | 1.606 | 1.573 |         | 2.1  |        |
| Fluoranthene                  | 1.035 | 1.009 |         | 2.5  | 30.0   |
| Benzidine                     | 0.437 | 0.466 |         | -6.6 |        |
| Pyrene                        | 1.502 | 1.410 |         | 6.1  |        |
| Butylbenzylphthalate          | 0.962 | 0.837 |         | 13.0 |        |
| Benzo[a]anthracene            | 1.516 | 1.444 |         | 4.7  |        |
| 3,3'-Dichlorobenzidine        | 0.386 | 0.324 |         | 16.1 |        |

All other compounds must meet a minimum RRF of 0.010.



Acq On : 22 Jun 95 2:16 pm

Operator: SCOTTV

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF   | %Dev   | Area% | Dev (Min) |
|-------|-----------------------------|-------|--------|--------|-------|-----------|
| 1 I   | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000  | 0.0    | 88    | 0.04      |
| 2 S   | 2-Fluorophenol              | 1.131 | 1.060  | 6.3    | 87    | 0.08      |
| 3 S   | Phenol-d5                   | 1.873 | 1.651  | 11.8   | 84    | 0.08      |
| 4 M   | N-nitrosodimethylamine      | 0.578 | 0.507  | 12.4   | 61    | 0.38      |
| 5     | Pyridine                    | 1.374 | 0.000# | 100.0# | 0#    | -1.62#    |
| 6 CM  | Phenol                      | 1.668 | 1.565  | 6.2    | 81    | 0.08      |
| 7 MT  | bis(2-Chloroethyl)ether     | 2.026 | 1.958  | 3.3    | 84    | 0.04      |
| 8 M   | 2-Chlorophenol              | 1.269 | 1.200  | 5.5    | 85    | 0.06      |
| 9 MT  | 1,3-Dichlorobenzene         | 1.385 | 1.420  | -2.5   | 88    | 0.02      |
| 10 CM | 1,4-Dichlorobenzene         | 1.429 | 1.438  | -0.6   | 86    | 0.02      |
| 11 M  | 1,2-Dichlorobenzene         | 1.357 | 1.390  | -2.4   | 89    | 0.02      |
| 12 T  | 2-Methylphenol              | 1.204 | 1.233  | -2.4   | 93    | 0.58#     |
| 13 M  | bis(2-chloroisopropyl)ether | 1.868 | 1.723  | 7.8    | 88    | 0.06      |
| 14 T  | 4-Methylphenol              | 1.322 | 1.233  | 6.7    | 83    | 0.08      |
| 15 PM | N-Nitroso-Di-n-propylamine  | 1.346 | 1.186  | 11.9   | 82    | 0.04      |
| 16 M  | Hexachloroethane            | 0.737 | 0.713  | 3.4    | 84    | 0.04      |
| 17 I  | Naphthalene-d8              | 1.000 | 1.000  | 0.0    | 86    | 0.04      |
| 18 S  | Nitrobenzene-d5             | 0.456 | 0.406  | 10.9   | 80    | 0.04      |
| 19 M  | Nitrobenzene                | 0.424 | 0.407  | 4.0    | 80    | 0.04      |
| 20 M  | Isophorone                  | 0.893 | 0.760  | 15.0   | 80    | 0.02      |
| 21 MC | 2-Nitrophenol               | 0.210 | 0.194  | 7.8    | 83    | 0.06      |
| 22 M  | 2,4-Dimethylphenol          | 0.394 | 0.376  | 4.4    | 84    | 0.08      |
| 23 M  | bis(2-Chloroethoxy)methane  | 0.456 | 0.423  | 7.3    | 80    | 0.04      |
| 24 MC | 2,4-Dichlorophenol          | 0.298 | 0.284  | 4.8    | 84    | 0.08      |
| 25 M  | 1,2,4-Trichlorobenzene      | 0.317 | 0.325  | -2.4   | 87    | 0.04      |
| 26 M  | Naphthalene                 | 0.979 | 0.973  | 0.6    | 87    | 0.04      |
| 27 T  | 4-Chloroaniline             | 0.463 | 0.414  | 10.6   | 76    | 0.06      |
| 28 MC | Hexachlorobutadiene         | 0.185 | 0.184  | 0.7    | 85    | 0.04      |
| 29 MC | 4-Chloro-3-methylphenol     | 0.384 | 0.325  | 15.3   | 73    | 0.10      |
| 30 M  | 2-Chloronaphthalene         | 0.696 | 0.672  | 3.5    | 82    | 0.06      |
| 31 T  | 2-Methylnaphthalene         | 0.786 | 0.904  | -15.1  | 111   | 0.04      |
| 32 I  | Acenaphthene-d10            | 1.000 | 1.000  | 0.0    | 87    | 0.06      |
| 33 P  | Hexachlorocyclopentadiene   | 0.278 | 0.260  | 6.5    | 88    | 0.04      |
| 34 MC | 2,4,6-Trichlorophenol       | 0.415 | 0.338  | 18.6   | 77    | 0.08      |
| 35 T  | 2,4,5-Trichlorophenol       | 0.324 | 0.361  | -11.5  | 85    | 0.11      |
| 36 S  | 2-Fluorobiphenyl            | 1.200 | 1.176  | 2.0    | 87    | 0.06      |
| 37 T  | 2-Nitroaniline              | 0.549 | 0.423  | 23.0   | 64    | 0.06      |
| 38 M  | Dimethylphthalate           | 1.299 | 1.276  | 1.8    | 86    | 0.06      |
| 39 M  | Acenaphthylene              | 1.704 | 1.691  | 0.8    | 86    | 0.06      |
| 40 M  | 2,6-Dinitrotoluene          | 0.310 | 0.308  | 0.7    | 82    | 0.08      |

(#)= Out of Range

B7981.D BNACLP.M

Thu Jun 22 14:09:59 1995

BNA

Page 1

Data File : C:\HPCHEM\1\DATA2\B7981.D

Acq On : 22 Jun 95 2:16 pm

Sample : 50 STD.....

Misc :

Vial: 2 244  
Operator: SCOTTV SUP  
Inst : ABNA  
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF   | %Dev   | Area% | Dev (Min) |
|-------|-----------------------------|-------|--------|--------|-------|-----------|
| 1 I   | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000  | 0.0    | 88    | 0.04      |
| 2 S   | 2-Fluorophenol              | 1.131 | 1.060  | 6.3    | 87    | 0.08      |
| 3 S   | Phenol-d5                   | 1.873 | 1.651  | 11.8   | 84    | 0.08      |
| 4 M   | N-nitrosodimethylamine      | 0.578 | 0.507  | 12.4   | 61    | 0.38      |
| 5     | Pyridine                    | 1.374 | 0.000# | 100.0# | 0#    | -1.62#    |
| 6 CM  | Phenol                      | 1.668 | 1.565  | 6.2    | 81    | 0.08      |
| 7 MT  | bis(2-Chloroethyl)ether     | 2.026 | 1.958  | 3.3    | 84    | 0.04      |
| 8 M   | 2-Chlorophenol              | 1.269 | 1.200  | 5.5    | 85    | 0.06      |
| 9 MT  | 1,3-Dichlorobenzene         | 1.385 | 1.420  | -2.5   | 88    | 0.02      |
| 10 CM | 1,4-Dichlorobenzene         | 1.429 | 1.438  | -0.6   | 86    | 0.02      |
| 11 M  | 1,2-Dichlorobenzene         | 1.357 | 1.390  | -2.4   | 89    | 0.02      |
| 12 T  | 2-Methylphenol              | 1.204 | 1.233  | -2.4   | 93    | 0.58#     |
| 13 M  | bis(2-chloroisopropyl)ether | 1.868 | 1.723  | 7.8    | 88    | 0.06      |
| 14 T  | 4-Methylphenol              | 1.322 | 1.233  | 6.7    | 83    | 0.08      |
| 15 PM | N-Nitroso-Di-n-propylamine  | 1.346 | 1.186  | 11.9   | 82    | 0.04      |
| 16 M  | Hexachloroethane            | 0.737 | 0.713  | 3.4    | 84    | 0.04      |
| 17 I  | Naphthalene-d8              | 1.000 | 1.000  | 0.0    | 86    | 0.04      |
| 18 S  | Nitrobenzene-d5             | 0.456 | 0.406  | 10.9   | 80    | 0.04      |
| 19 M  | Nitrobenzene                | 0.424 | 0.407  | 4.0    | 80    | 0.04      |
| 20 M  | Isophorone                  | 0.893 | 0.760  | 15.0   | 80    | 0.02      |
| 21 MC | 2-Nitrophenol               | 0.210 | 0.194  | 7.8    | 83    | 0.06      |
| 22 M  | 2,4-Dimethylphenol          | 0.394 | 0.376  | 4.4    | 84    | 0.08      |
| 23 M  | bis(2-Chloroethoxy)methane  | 0.456 | 0.423  | 7.3    | 80    | 0.04      |
| 24 MC | 2,4-Dichlorophenol          | 0.298 | 0.284  | 4.8    | 84    | 0.08      |
| 25 M  | 1,2,4-Trichlorobenzene      | 0.317 | 0.325  | -2.4   | 87    | 0.04      |
| 26 M  | Naphthalene                 | 0.979 | 0.973  | 0.6    | 87    | 0.04      |
| 27 T  | 4-Chloroaniline             | 0.463 | 0.414  | 10.6   | 76    | 0.06      |
| 28 MC | Hexachlorobutadiene         | 0.185 | 0.184  | 0.7    | 85    | 0.04      |
| 29 MC | 4-Chloro-3-methylphenol     | 0.384 | 0.325  | 15.3   | 73    | 0.10      |
| 30 M  | 2-Chloronaphthalene         | 0.696 | 0.672  | 3.5    | 82    | 0.06      |
| 31 T  | 2-Methylnaphthalene         | 0.786 | 0.904  | -15.1  | 111   | 0.04      |
| 32 I  | Acenaphthene-d10            | 1.000 | 1.000  | 0.0    | 87    | 0.06      |
| 33 P  | Hexachlorocyclopentadiene   | 0.278 | 0.260  | 6.5    | 88    | 0.04      |
| 34 MC | 2,4,6-Trichlorophenol       | 0.415 | 0.338  | 18.6   | 77    | 0.08      |
| 35 T  | 2,4,5-Trichlorophenol       | 0.324 | 0.361  | -11.5  | 85    | 0.11      |
| 36 S  | 2-Fluorobiphenyl            | 1.200 | 1.176  | 2.0    | 87    | 0.06      |
| 37 T  | 2-Nitroaniline              | 0.549 | 0.423  | 23.0   | 64    | 0.06      |
| 38 M  | Dimethylphthalate           | 1.299 | 1.276  | 1.8    | 86    | 0.06      |
| 39 M  | Acenaphthylene              | 1.704 | 1.691  | 0.8    | 86    | 0.06      |
| 40 M  | 2,6-Dinitrotoluene          | 0.310 | 0.308  | 0.7    | 82    | 0.08      |

(#)= Out of Range

B7981.D BNACLP.M

Tue Jun 27 13:45:40 1995

BNA

Page 1



Data File : C:\HPCHEM\1\DATA2\B7981.D

Acq On : 22 Jun 95 2:16 pm

Sample : 50 STD.....

Misc :

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Vial: 2

Operator: SCOTTV

245  
SUP

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(Min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 41 T  | 3-Nitroaniline              | 0.346 | 0.271 | 21.6  | 65    | 0.07     |
| 42 CM | Acenaphthene                | 1.025 | 1.030 | -0.5  | 88    | 0.06     |
| 43 MP | 2,4-Dinitrophenol           | 0.172 | 0.142 | 17.3  | 80    | 0.08     |
| 44 PM | 4-Nitrophenol               | 0.166 | 0.134 | 18.9  | 70    | 0.17     |
| 45 T  | Dibenzofuran                | 1.609 | 1.452 | 9.7   | 76    | 0.06     |
| 46 M  | 2,4-Dinitrotoluene          | 1.167 | 1.086 | 7.0   | 83    | 0.07     |
| 47 M  | Diethylphthalate            | 1.443 | 1.452 | -0.6  | 87    | 0.05     |
| 48 M  | Fluorene                    | 1.259 | 1.184 | 5.9   | 84    | 0.07     |
| 49 M  | 4-Chlorophenyl-phenylether  | 0.596 | 0.599 | -0.5  | 88    | 0.07     |
| 50    | Phenanthrene-d10            | 1.000 | 1.000 | 0.0   | 86    | 0.09     |
| 51 T  | 4-Nitroaniline              | 0.166 | 0.161 | 3.0   | 65    | 0.07     |
| 52 MC | 4,6-Dinitro-2-methylphenol  | 0.132 | 0.121 | 8.1   | 80    | 0.07     |
| 53 T  | n-Nitrosodiphenylamine      | 0.508 | 0.506 | 0.4   | 82    | 0.07     |
| 54 S  | 2,4,6-Tribromophenol        | 0.108 | 0.095 | 11.7  | 77    | 0.09     |
| 55    | 1,2-Diphenylhydrazine (as a | 1.211 | 1.112 | 8.2   | 73    | 0.07     |
| 56 M  | 4-Bromophenyl-phenylether   | 0.206 | 0.214 | -3.6  | 83    | 0.07     |
| 57 M  | Hexachlorobenzene           | 0.215 | 0.185 | 13.8  | 70    | 0.07     |
| 58 CM | Pentachlorophenol           | 0.137 | 0.123 | 10.8  | 79    | 0.09     |
| 59 M  | Phenanthrene                | 1.094 | 1.106 | -1.0  | 87    | 0.07     |
| 60 M  | Anthracene                  | 1.009 | 0.996 | 1.3   | 83    | 0.07     |
| 61    | Carbazole                   | 0.944 | 0.808 | 14.4  | 72    | 0.09     |
| 62 M  | Di-n-butylphthalate         | 1.606 | 1.573 | 2.1   | 82    | 0.09     |
| 63 MC | Fluoranthene                | 1.035 | 1.009 | 2.5   | 77    | 0.11     |
| 64 I  | Chrysene-d12                | 1.000 | 1.000 | 0.0   | 71    | 0.14     |
| 65    | Benzidine                   | 0.437 | 0.466 | -6.5  | 83    | 0.11     |
| 66 M  | Pyrene                      | 1.502 | 1.410 | 6.1   | 79    | 0.11     |
| 67 S  | Terphenyl-d14               | 1.062 | 0.932 | 12.2  | 75    | 0.11     |
| 68 M  | Butylbenzylphthalate        | 0.962 | 0.837 | 12.9  | 70    | 0.11     |
| 69 M  | Benzo[a]anthracene          | 1.516 | 1.444 | 4.7   | 76    | 0.12     |
| 70 M  | 3,3'-Dichlorobenzidine      | 0.386 | 0.324 | 16.2  | 65    | 0.12     |
| 71 M  | Chrysene                    | 0.843 | 0.999 | -18.5 | 92    | 0.14     |
| 72 M  | bis(2-Ethylhexyl)phthalate  | 1.364 | 1.258 | 7.8   | 72    | 0.10     |
| 73 I  | Perylene-d12                | 1.000 | 1.000 | 0.0   | 90    | 0.12     |
| 74 MC | Di-n-octylphthalate         | 5.094 | 4.629 | 9.1   | 89    | 0.10     |
| 75 M  | Benzo[b]fluoranthene        | 2.467 | 2.186 | 11.4  | 78    | 0.12     |
| 76 m  | Benzo[k]fluoranthene        | 1.190 | 1.327 | -11.5 | 108   | 0.12     |
| 77 mc | Benzo[a]pyrene              | 1.227 | 1.112 | 9.3   | 74    | 0.12     |
| 78 m  | Indeno[1,2,3-cd]pyrene      | 0.452 | 0.471 | -4.2  | 102   | 0.08     |
| 79 m  | Dibenz[a,h]anthracene       | 0.436 | 0.498 | -14.2 | 123   | 0.08     |

(#)= Out of Range

B7981.D BNACLP.M

Tue Jun 27 13:45:54 1995

BNA

Page 2

Data File : C:\HPCHEM\1\DATA2\B7981.D

Vial: 2

246

Acq On : 22 Jun 95 2:16 pm

Operator: SCOTTV

SUP

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound                       | AvgRF | CCRF   | %Dev  | Area% | Dev(Min) |
|--------------------------------|-------|--------|-------|-------|----------|
| 80 M Benzo[g,h,i]perylene      | 0.356 | 0.347  | 2.4   | 96    | 0.07     |
| 81 1-Methyl naphthalene        | 0.000 | 0.000# | 0.0   | 15#   | 0.06     |
| 82 7,12-Dimethylbenz(a)anthrac | 0.000 | 0.000# | 0.0   | 77    | 0.12     |
| 83 Quinoline                   | 0.000 | 0.000# | 0.0   | 75    | 0.06     |
| 84 Thiophenol                  | 0.000 | 0.000# | 0.0   | 0#    | -5.47#   |
| 85 4-Methyl chrysene           | 0.000 | 0.000# | 0.0   | 77    | 0.14     |
| 86 Dibenz(a,j)acridine         | 0.000 | 0.000# | 0.0   | 85    | 0.10     |
| 87 Indene                      | 0.000 | 0.000# | 0.0   | 0#    | -9.03#   |
| 88 Benzyl alcohol              | 1.050 | 0.826  | 21.3  | 78    | 0.00     |
| 89 Benzoic acid                | 0.964 | 0.647  | 32.9# | 79    | -0.10    |

(#)= Out of Range

SPCC's out = 0 CCC's out = 0

B7981.D BNACLP.M

Tue Jun 27 13:45:57 1995

BNA

Page 3

Data File : c:\hpchem\1\data2\b7981.d

Acq On : 22 Jun 95 2:16 pm

Sample : 50 STD.....

Misc :

Quant Time: Jun 27 13:45 1995

Vial: 2 247

Operator: SCOTTV

Converted from RTE d Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.07  | 152  | 26103    | 40.00 | ug/mL | 0.04      |
| 17) Naphthalene-d8        | 12.79 | 136  | 106515   | 40.00 | ug/mL | 0.04      |
| 32) Acenaphthene-d10      | 18.10 | 164  | 71380    | 40.00 | ug/mL | 0.06      |
| 50) Phenanthrene-d10      | 22.61 | 188  | 113017   | 40.00 | ug/mL | 0.09      |
| 64) Chrysene-d12          | 30.72 | 240  | 83825    | 40.00 | ug/mL | 0.14      |
| 73) Perylene-d12          | 34.71 | 264  | 40886    | 40.00 | ug/mL | 0.12      |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |       |       |        |
|--------------------------|-------|-----|--------|-------|-------|--------|
| 2) 2-Fluorophenol        | 5.55  | 112 | 34583  | 46.84 | ug/mL | 46.84% |
| 3) Phenol-d5             | 8.47  | 99  | 53878  | 44.09 | ug/mL | 44.09% |
| 18) Nitrobenzene-d5      | 10.74 | 82  | 54036  | 44.53 | ug/mL | 44.53% |
| 36) 2-Fluorobiphenyl     | 16.25 | 172 | 104936 | 49.01 | ug/mL | 49.01% |
| 54) 2,4,6-Tribromophenol | 20.55 | 330 | 13472  | 44.14 | ug/mL | 44.14% |
| 67) Terphenyl-d14        | 27.75 | 244 | 97657  | 43.89 | ug/mL | 43.89% |

## Target Compounds

Qvalue

|                                 |       |     |        |       |        |     |
|---------------------------------|-------|-----|--------|-------|--------|-----|
| 4) N-nitrosodimethylamine       | 2.33  | 74  | 16532  | 43.81 | ug/mLm | 0   |
| 6) Phenol                       | 8.51  | 94  | 51064  | 46.92 | ug/mL  | 100 |
| 7) bis(2-Chloroethyl) ether     | 12.46 | 93  | 63891  | 48.33 | ug/mL  | 97  |
| 8) 2-Chlorophenol               | 8.51  | 128 | 39151  | 47.27 | ug/mL# | 88  |
| 9) 1,3-Dichlorobenzene          | 8.86  | 146 | 46318  | 51.25 | ug/mL  | 100 |
| 10) 1,4-Dichlorobenzene         | 9.11  | 146 | 46925  | 50.32 | ug/mL  | 98  |
| 11) 1,2-Dichlorobenzene         | 9.49  | 146 | 45354  | 51.20 | ug/mL  | 97  |
| 12) 2-Methylphenol              | 10.71 | 108 | 40223  | 51.18 | ug/mL  | 61  |
| 13) bis(2-chloroisopropyl) ethe | 10.15 | 45  | 56231  | 46.12 | ug/mL# | 67  |
| 14) 4-Methylphenol              | 10.71 | 108 | 40223  | 46.64 | ug/mL  | 96  |
| 15) N-Nitroso-Di-n-propylamine  | 10.53 | 70  | 38691  | 44.06 | ug/mL# | 95  |
| 16) Hexachloroethane            | 10.45 | 117 | 23249  | 48.31 | ug/mL# | 85  |
| 19) Nitrobenzene                | 10.80 | 77  | 54168  | 47.98 | ug/mL# | 85  |
| 20) Isophorone                  | 11.59 | 82  | 101132 | 42.51 | ug/mL  | 94  |
| 21) 2-Nitrophenol               | 11.75 | 139 | 25815  | 46.09 | ug/mL  | 99  |
| 22) 2,4-Dimethylphenol          | 10.71 | 107 | 50111  | 47.81 | ug/mL# | 32  |
| 23) bis(2-Chloroethoxy) methane | 8.20  | 93  | 56271  | 46.33 | ug/mL# | 42  |
| 24) 2,4-Dichlorophenol          | 12.55 | 162 | 37784  | 47.59 | ug/mL  | 96  |
| 25) 1,2,4-Trichlorobenzene      | 12.69 | 180 | 43225  | 51.22 | ug/mL  | 99  |
| 26) Naphthalene                 | 12.84 | 128 | 129573 | 49.71 | ug/mL# | 91  |
| 27) 4-Chloroaniline             | 13.21 | 127 | 55127  | 44.71 | ug/mL  | 99  |
| 28) Hexachlorobutadiene         | 13.36 | 225 | 24466  | 49.65 | ug/mL  | 97  |
| 29) 4-Chloro-3-methylphenol     | 14.96 | 107 | 43314  | 42.37 | ug/mL# | 27  |
| 30) 2-Chloronaphthalene         | 16.43 | 162 | 89446  | 48.26 | ug/mL  | 96  |
| 31) 2-Methylnaphthalene         | 14.98 | 142 | 120416 | 57.55 | ug/mL  | 94  |
| 33) Hexachlorocyclopentadiene   | 15.50 | 237 | 23214  | 46.74 | ug/mL  | 99  |
| 34) 2,4,6-Trichlorophenol       | 15.98 | 196 | 30166  | 40.69 | ug/mL  | 98  |
| 35) 2,4,5-Trichlorophenol       | 16.12 | 196 | 32246  | 55.76 | ug/mL  | 99  |

(#)=qualifier out of range (m)=manual integration

b7981.d BNACLP.M Tue Jun 27 14:17:25 1995

BNA

Page 1

Acq On : 22 Jun 95 2:16 pm

Operator: SCOTT

Sample : 50 STD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 27 13:45 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.91 | 65   | 37736    | 38.50 | ug/mLm | 100    |
| 38) Dimethylphthalate          | 17.68 | 163  | 113807   | 49.08 | ug/mL  | 99     |
| 39) Acenaphthylene             | 17.64 | 152  | 150915   | 49.62 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.77 | 165  | 27474    | 49.63 | ug/mL  | 92     |
| 41) 3-Nitroaniline             | 18.20 | 138  | 24182    | 39.18 | ug/mL  | 94     |
| 42) Acenaphthene               | 18.20 | 153  | 91895    | 50.23 | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.53 | 184  | 12707    | 41.36 | ug/mL  | 93     |
| 44) 4-Nitrophenol              | 19.10 | 109  | 11991    | 40.57 | ug/mLm | 93     |
| 45) Dibenzofuran               | 18.76 | 168  | 129588   | 45.14 | ug/mL  | 95     |
| 46) 2,4-Dinitrotoluene         | 19.80 | 165  | 96865    | 46.51 | ug/mL# | 32     |
| 47) Diethylphthalate           | 19.91 | 149  | 129540   | 50.31 | ug/mL  | 98     |
| 48) Fluorene                   | 19.80 | 166  | 105680   | 47.04 | ug/mL  | 100    |
| 49) 4-Chlorophenyl-phenylether | 19.99 | 204  | 53458    | 50.24 | ug/mL  | 96     |
| 51) 4-Nitroaniline             | 20.07 | 138  | 22775    | 48.49 | ug/mL  | 95     |
| 52) 4,6-Dinitro-2-methylphenol | 20.16 | 198  | 17109    | 45.95 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.40 | 169  | 71501    | 49.78 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.45 | 77   | 157092   | 45.90 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.44 | 248  | 30175    | 51.82 | ug/mL# | 88     |
| 57) Hexachlorobenzene          | 21.42 | 284  | 26153    | 43.12 | ug/mL# | 79     |
| 58) Pentachlorophenol          | 22.15 | 266  | 17319    | 44.58 | ug/mL  | 100    |
| 59) Phenanthrene               | 22.67 | 178  | 156215   | 50.52 | ug/mL  | 99     |
| 60) Anthracene                 | 22.82 | 178  | 140662   | 49.34 | ug/mLm | 99     |
| 61) Carbazole                  | 23.48 | 167  | 114145   | 42.81 | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 25.00 | 149  | 222174   | 48.95 | ug/mL  | 100    |
| 63) Fluoranthene               | 26.31 | 202  | 142540   | 48.75 | ug/mLm | 88     |
| 65) Benzidine                  | 26.98 | 184  | 48811    | 53.25 | ug/mlm | 100    |
| 66) Pyrene                     | 26.94 | 202  | 147691   | 46.94 | ug/mL  | 92     |
| 68) Butylbenzylphthalate       | 29.53 | 149  | 87722    | 43.53 | ug/mL  | 99     |
| 69) Benzo[a]anthracene         | 30.68 | 228  | 151279   | 47.63 | ug/mLm | 99     |
| 70) 3,3'-Dichlorobenzidine     | 30.84 | 252  | 33933    | 41.91 | ug/mL  | 98     |
| 71) Chrysene                   | 30.80 | 228  | 104636   | 59.24 | ug/mLm | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.49 | 149  | 131770   | 46.10 | ug/mL  | 97     |
| 74) Di-n-octylphthalate        | 33.40 | 149  | 236565   | 45.43 | ug/mLm | 99     |
| 75) Benzo[b]fluoranthene       | 33.75 | 252  | 111711   | 44.31 | ug/mLm | 99     |
| 76) Benzo[k]fluoranthene       | 33.83 | 252  | 67812    | 55.75 | ug/mLm | 93     |
| 77) Benzo[a]pyrene             | 34.56 | 252  | 56833    | 45.33 | ug/mLm | 100    |
| 78) Indeno[1,2,3-cd]pyrene     | 37.24 | 276  | 24085    | 52.08 | ug/mLm | 91     |
| 79) Dibenz[a,h]anthracene      | 37.36 | 278  | 25436    | 57.12 | ug/mLm | 97     |
| 80) Benzo[g,h,i]perylene       | 37.82 | 276  | 17744    | 48.81 | ug/mLm | 86     |
| 88) Benzyl alcohol             | 9.70  | 79   | 42218    | 39.34 | ug/mlm | 98     |
| 89) Benzoic acid               | 12.88 | 105  | 33073    | 33.57 | ug/mlm | 77     |

(#) = qualifier out of range (m) = manual integration

Data File : c:\hpcchem\1\data2\b7981.d

Acq On : 22 Jun 95 2:16 pm

Sample : 50 STD.....

Misc :

Quant Time: Jun 27 13:45 1995

Vial: 2 249

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

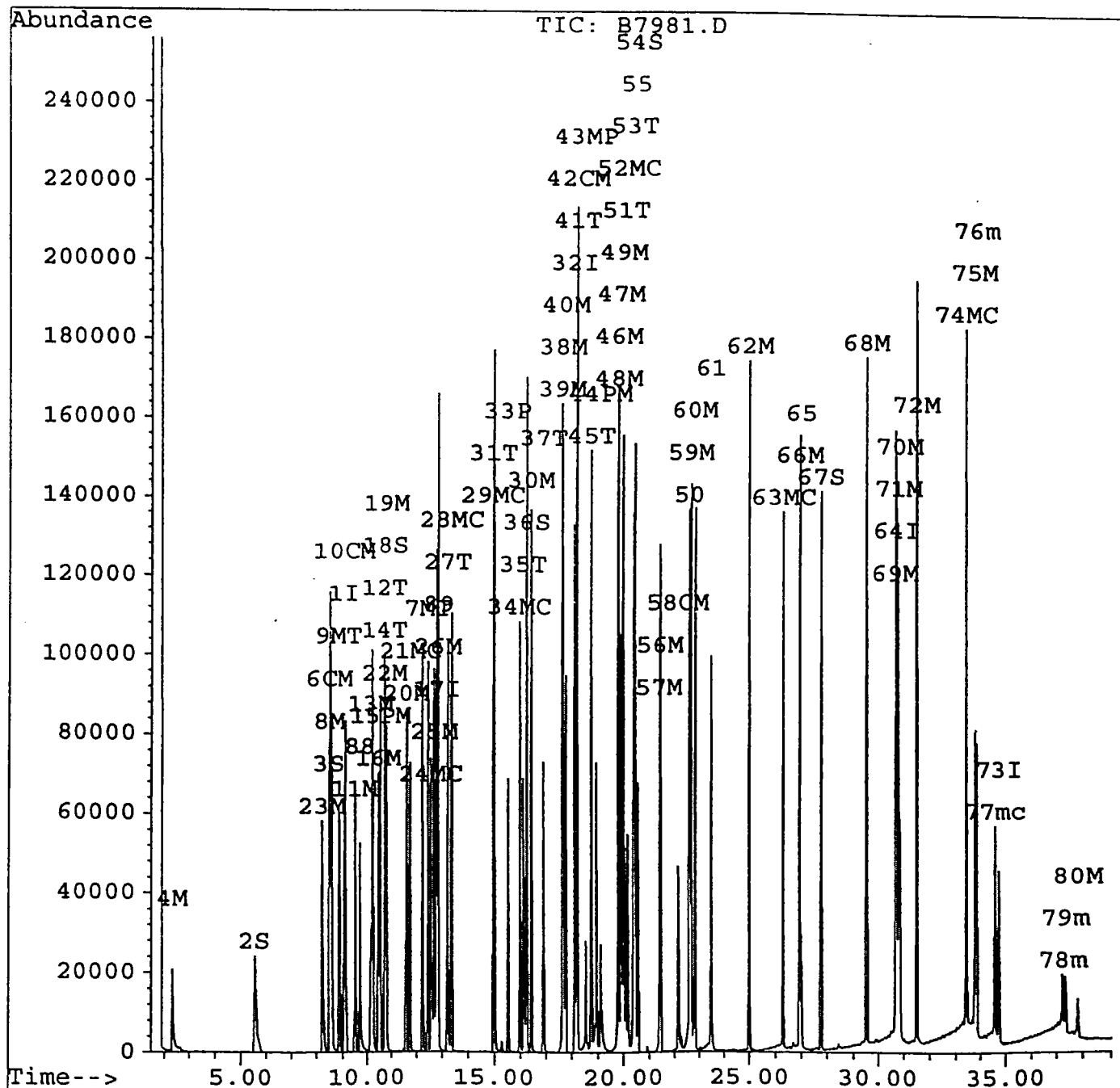
Converted from RTE d

Method : c:\hpcchem\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



Data File : C:\HPCHEM\1\DATA2\B8021.D

Acq On : 26 Jun 95 12:57 am

Vial: 1

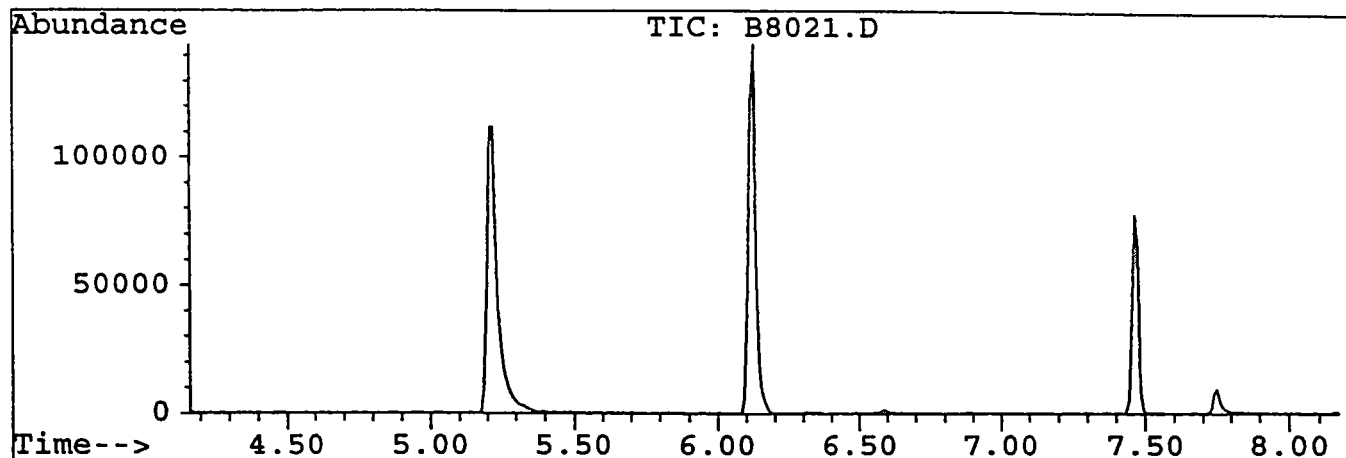
Operator: SCOTTV

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration



Peak Apex is scan: 320

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 51          | 198          | 30           | 60           | 54.5      | 1464    | PASS             |
| 68          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 69          | 198          | 0            | 100          | 68.1      | 1828    | PASS             |
| 70          | 69           | 0            | 2            | 0.0       | 0       | PASS             |
| 127         | 198          | 40           | 60           | 50.7      | 1362    | PASS             |
| 197         | 198          | 0            | 1            | 0.0       | 0       | PASS             |
| 198         | 198          | 100          | 100          | 100.0     | 2686    | PASS             |
| 199         | 198          | 5            | 9            | 8.6       | 231     | PASS             |
| 275         | 198          | 10           | 30           | 23.0      | 618     | PASS             |
| 365         | 198          | 1            | 100          | 2.0       | 53      | PASS             |
| 441         | 443          | 0            | 100          | 82.6      | 223     | PASS             |
| 442         | 198          | 40           | 100          | 47.8      | 1283    | PASS             |
| 443         | 442          | 17           | 23           | 21.0      | 270     | PASS             |

Modified:subtracted

| m/z   | abund. | m/z   | abund. | m/z    | abund. | m/z    | abund. |
|-------|--------|-------|--------|--------|--------|--------|--------|
| 38.00 | 73     | 65.05 | 35     | 82.05  | 32     | 107.05 | 391    |
| 39.10 | 154    | 68.95 | 1828   | 83.05  | 24     | 108.15 | 63     |
| 41.00 | 47     | 73.15 | 15     | 85.95  | 33     | 110.05 | 845    |
| 50.05 | 385    | 74.05 | 106    | 91.05  | 29     | 111.00 | 98     |
| 51.05 | 1464   | 75.05 | 199    | 92.05  | 30     | 116.05 | 28     |
| 52.05 | 108    | 76.05 | 82     | 93.05  | 167    | 117.05 | 312    |
| 55.15 | 20     | 77.05 | 1273   | 98.05  | 82     | 117.95 | 23     |
| 56.05 | 14     | 78.05 | 80     | 99.05  | 95     | 122.00 | 38     |
| 57.05 | 119    | 79.00 | 85     | 100.95 | 58     | 122.90 | 46     |
| 62.05 | 25     | 80.05 | 80     | 104.05 | 42     | 124.00 | 22     |
| 63.05 | 63     | 81.05 | 88     | 104.95 | 53     | 124.90 | 16     |

Average of 6.094 to 6.104 min.: B8021.D

Modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z    | abund. |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 127.00 | 1362   | 155.10 | 51     | 175.10 | 51     | 196.10 | 109    |
| 127.95 | 83     | 156.00 | 47     | 176.00 | 29     | 198.00 | 2686   |
| 129.00 | 596    | 157.80 | 13     | 177.00 | 28     | 199.00 | 231    |
| 130.00 | 61     | 160.00 | 22     | 179.00 | 124    | 201.55 | 20     |
| 135.00 | 52     | 161.10 | 32     | 180.00 | 72     | 202.95 | 19     |
| 137.10 | 25     | 166.10 | 28     | 181.10 | 46     | 204.05 | 100    |
| 141.00 | 93     | 167.00 | 154    | 185.10 | 55     | 205.05 | 197    |
| 142.10 | 35     | 168.00 | 59     | 186.10 | 361    | 206.05 | 678    |
| 147.10 | 38     | 172.00 | 15     | 187.10 | 114    | 207.05 | 84     |
| 148.00 | 89     | 173.00 | 21     | 192.10 | 30     | 211.15 | 26     |
| 153.00 | 22     | 174.10 | 35     | 193.10 | 37     | 216.05 | 16     |

Average of 6.094 to 6.104 min.: B8021.D

Modified:subtracted

| m/z    | abund. | m/z    | abund. | m/z    | abund. | m/z | abund. |
|--------|--------|--------|--------|--------|--------|-----|--------|
| 217.05 | 190    | 258.05 | 80     | 372.15 | 21     |     |        |
| 221.05 | 214    | 265.05 | 28     | 423.10 | 74     |     |        |
| 223.05 | 49     | 273.05 | 39     | 441.10 | 223    |     |        |
| 224.00 | 353    | 274.05 | 86     | 442.10 | 1283   |     |        |
| 225.05 | 91     | 275.05 | 618    | 443.10 | 270    |     |        |
| 227.05 | 184    | 276.15 | 76     | 444.10 | 19     |     |        |
| 229.05 | 33     | 277.15 | 48     |        |        |     |        |
| 244.05 | 303    | 296.00 | 152    |        |        |     |        |
| 246.05 | 46     | 323.10 | 44     |        |        |     |        |
| 255.05 | 1384   | 334.20 | 26     |        |        |     |        |
| 256.05 | 260    | 365.05 | 53     |        |        |     |        |

Data File : C:\HPCHEM\1\DATA2\B8021.D

Vial: 1 253

Acq On : 26 Jun 95 12:57 am

Operator: SCOTT

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

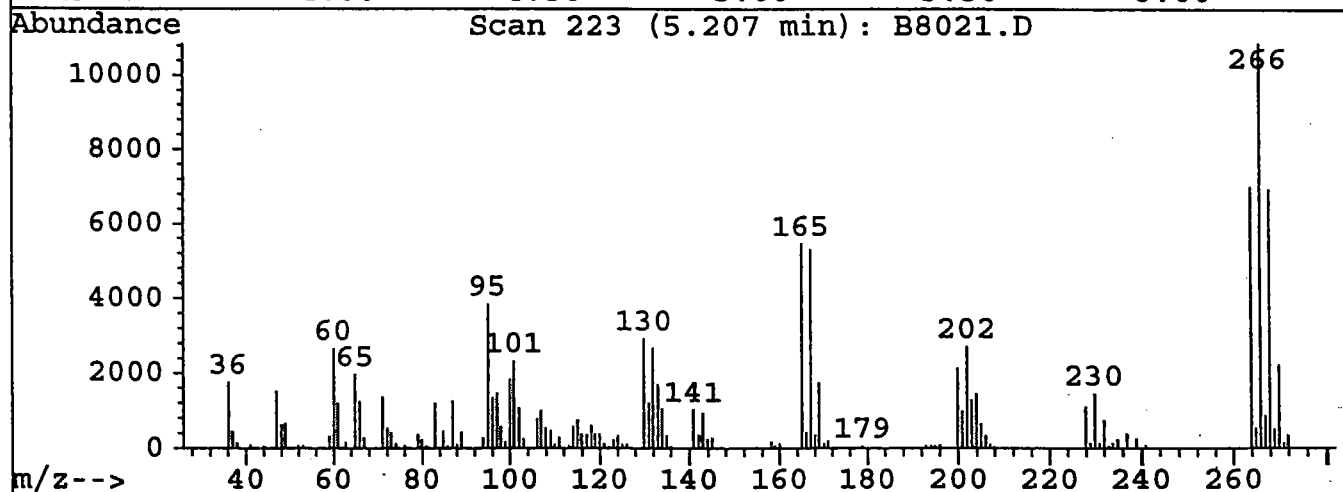
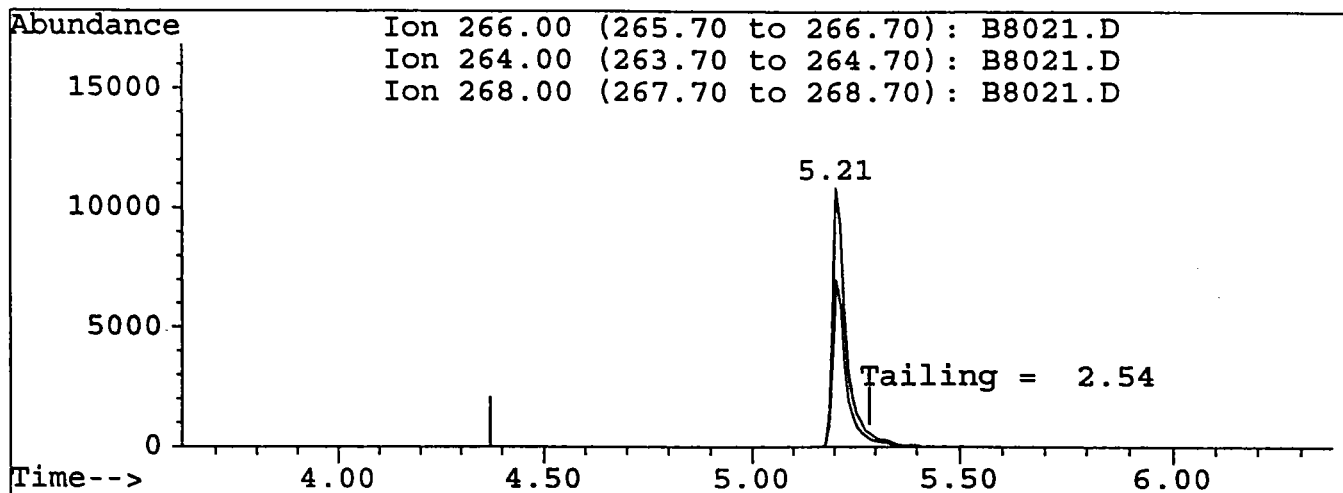
Quant Time: Jun 26 12:22 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



TIC: B8021.D

(1) Pentachlorophenol (CM)

5.21min 78.31ug/mL

response 25865

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 266.00 | 100   | 100   |
| 264.00 | 64.30 | 64.26 |
| 268.00 | 64.70 | 63.60 |
| 0.00   | 0.00  | 0.00  |



Data File : C:\HPCHEM\1\DATA2\B8021.D

Acq On : 26 Jun 95 12:57 am

Sample : DFTPP..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 26 12:22 1995

Vial: 1 254

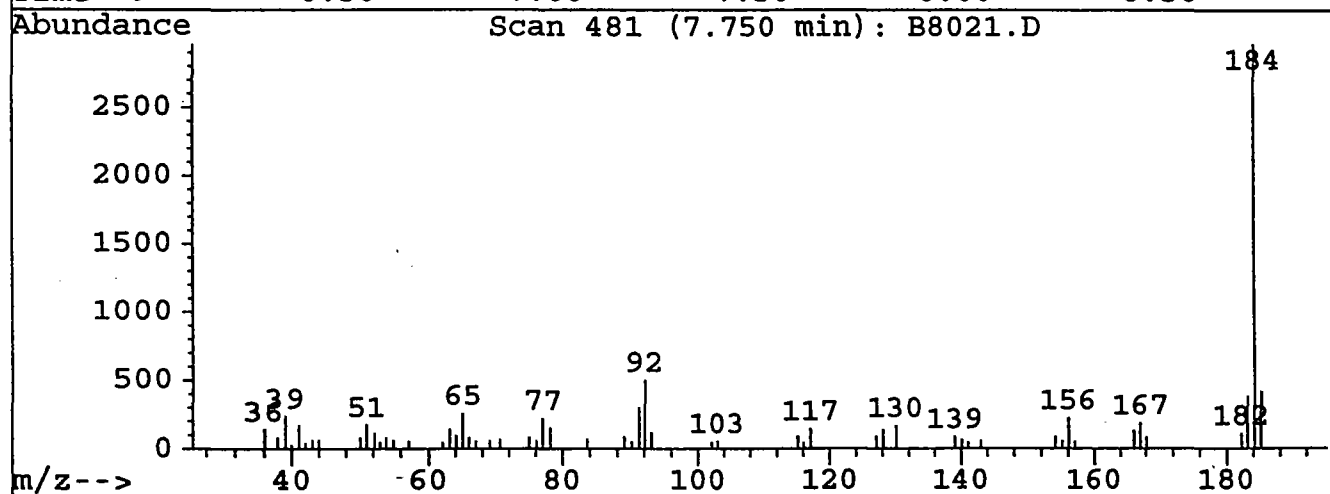
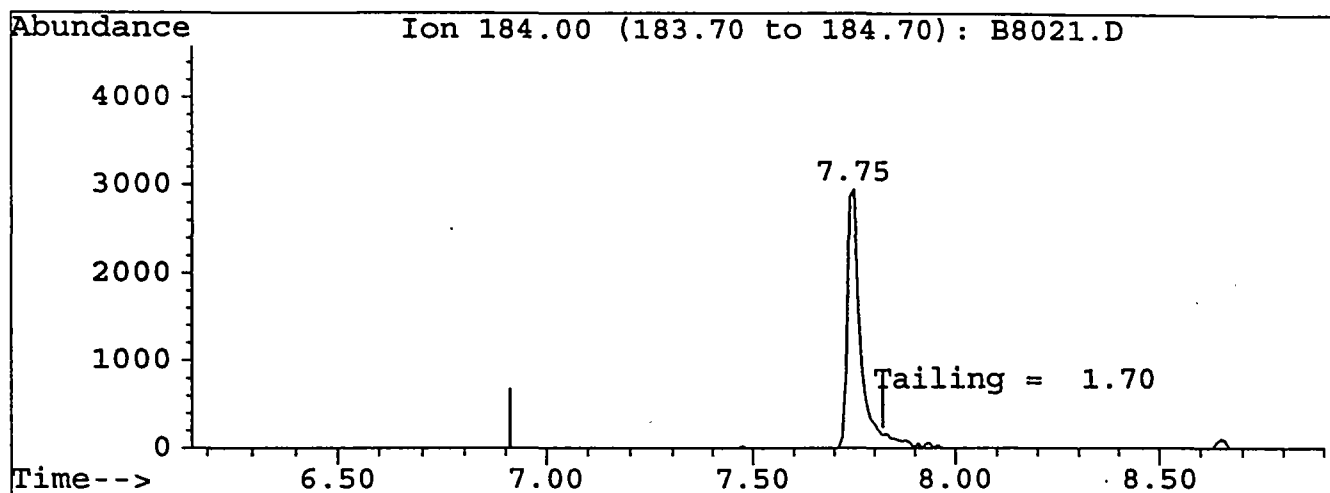
Operator: SCOTTV

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



TIC: B8021.D

(2) Benzidine

7.75min 22.22ug/ml

response 6825

| Ion    | Exp% | Act% |
|--------|------|------|
| 184.00 | 100  | 100  |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |
| 0.00   | 0.00 | 0.00 |

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No. \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: ABNACalibration Date: 6/26/95Time: 0132Lab File ID: B8022.DInit. Calib. Date(s): 6/26/95 1/0/00Init. Calib. Times: 0132 0000

| COMPOUND                      | RRF   | RRF50 | MIN RRF | %D    | MAX %D |
|-------------------------------|-------|-------|---------|-------|--------|
| N-nitrosodimethylamine        | 0.578 | 0.594 |         | -2.8  |        |
| bis(2-Chloroethyl)ether       | 2.026 | 2.057 |         | -1.5  |        |
| 1,3-Dichlorobenzene           | 1.385 | 1.415 |         | -2.2  |        |
| 1,4-Dichlorobenzene           | 1.429 | 1.448 |         | -1.3  | 30.0   |
| 1,2-Dichlorobenzene           | 1.357 | 1.394 |         | -2.7  |        |
| bis(2-chloroisopropyl)ether   | 1.868 | 1.973 |         | -5.6  |        |
| N-Nitroso-Di-n-propylamine    | 1.346 | 1.356 | 0.050   | -0.7  |        |
| Hexachloroethane              | 0.737 | 0.753 |         | -2.2  |        |
| Nitrobenzene                  | 0.424 | 0.403 |         | 5.0   |        |
| Isophorone                    | 0.893 | 0.801 |         | 10.3  |        |
| bis(2-Chloroethoxy)methane    | 0.456 | 0.437 |         | 4.2   |        |
| 1,2,4-Trichlorobenzene        | 0.317 | 0.308 |         | 2.8   |        |
| Naphthalene                   | 0.979 | 1.005 |         | -2.7  |        |
| Hexachlorobutadiene           | 0.185 | 0.171 |         | 7.6   | 30.0   |
| Hexachlorocyclopentadiene     | 0.278 | 0.256 | 0.050   | 7.9   |        |
| 2-Chloronaphthalene           | 0.696 | 0.677 |         | 2.7   |        |
| Dimethylphthalate             | 1.299 | 1.315 |         | -1.2  |        |
| Acenaphthylene                | 1.704 | 1.765 |         | -3.6  |        |
| 2,6-Dinitrotoluene            | 0.310 | 0.308 |         | 0.6   |        |
| Acenaphthene                  | 1.025 | 1.045 |         | -2.0  | 30.0   |
| 2,4-Dinitrotoluene            | 1.167 | 1.178 |         | -0.9  |        |
| Diethylphthalate              | 1.443 | 1.428 |         | 1.0   |        |
| Fluorene                      | 1.259 | 1.274 |         | -1.2  |        |
| 4-Chlorophenyl-phenylether    | 0.596 | 0.606 |         | -1.7  |        |
| n-Nitrosodiphenylamine        | 0.508 | 0.555 |         | -9.3  |        |
| 1,2-Diphenylhydrazine(as azo) | 0.000 | 0.000 |         |       |        |
| 4-Bromophenyl-phenylether     | 0.206 | 0.205 |         | 0.5   |        |
| Hexachlorobenzene             | 0.215 | 0.185 |         | 14.0  |        |
| Phenanthrene                  | 1.094 | 1.121 |         | -2.5  |        |
| Anthracene                    | 1.009 | 1.054 |         | -4.5  |        |
| Di-n-butylphthalate           | 1.606 | 1.858 |         | -15.7 |        |
| Fluoranthene                  | 1.035 | 1.239 |         | -19.7 | 30.0   |
| Benzidine                     | 0.437 | 0.411 |         | 5.9   |        |
| Pyrene                        | 1.502 | 1.348 |         | 10.3  |        |
| Butylbenzylphthalate          | 0.962 | 0.919 |         | 4.5   |        |
| Benzo[a]anthracene            | 1.516 | 1.273 |         | 16.0  |        |
| 3,3'-Dichlorobenzidine        | 0.386 | 0.365 |         | 5.4   |        |

All other compounds must meet a minimum RRF of 0.010.

## 256

**Contract:**

**Site:**

**Location:**

**Group:**

Calibration Date: 6/26/95

Time: 0132

Init. Calib. Date(s): 6/26/95 1/0/00

Init. Calib. Times: 0132 0000

**All other compounds must meet a minimum RRF of 0.010.**

Data File : C:\HPCHEM\1\DATA2\B8022.D

Vial: 2

Acq On : 26 Jun 95 1:32 am

Operator: SCOTTV

SUP

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                     | AvgRF | CCRF   | %Dev   | Area% | Dev (Min) |
|-------|------------------------------|-------|--------|--------|-------|-----------|
| 1 I   | 1,4-Dichlorobenzene-d4       | 1.000 | 1.000  | 0.0    | 72    | 0.00      |
| 2 S   | 2-Fluorophenol               | 1.131 | 1.081  | 4.4    | 73    | 0.04      |
| 3 S   | Phenol-d5                    | 1.873 | 1.726  | 7.8    | 72    | 0.04      |
| 4 M   | N-nitrosodimethylamine       | 0.578 | 0.594  | -2.7   | 59    | 0.36      |
| 5     | Pyridine                     | 1.374 | 0.000# | 100.0# | 0#    | -1.62#    |
| 6 CM  | Phenol                       | 1.668 | 1.648  | 1.2    | 70    | 0.02      |
| 7 MT  | bis(2-Chloroethyl) ether     | 2.026 | 2.057  | -1.5   | 73    | 0.02      |
| 8 M   | 2-Chlorophenol               | 1.269 | 1.246  | 1.8    | 72    | 0.02      |
| 9 MT  | 1,3-Dichlorobenzene          | 1.385 | 1.415  | -2.2   | 72    | 0.00      |
| 10 CM | 1,4-Dichlorobenzene          | 1.429 | 1.448  | -1.4   | 71    | 0.00      |
| 11 M  | 1,2-Dichlorobenzene          | 1.357 | 1.394  | -2.7   | 73    | 0.00      |
| 12 T  | 2-Methylphenol               | 1.204 | 1.327  | -10.2  | 82    | 0.54#     |
| 13 M  | bis(2-chloroisopropyl) ether | 1.868 | 1.973  | -5.6   | 82    | 0.04      |
| 14 T  | 4-Methylphenol               | 1.322 | 1.327  | -0.4   | 73    | 0.04      |
| 15 PM | N-Nitroso-Di-n-propylamine   | 1.346 | 1.356  | -0.8   | 77    | 0.00      |
| 16 M  | Hexachloroethane             | 0.737 | 0.753  | -2.2   | 73    | 0.02      |
| 17 I  | Naphthalene-d8               | 1.000 | 1.000  | 0.0    | 72    | 0.02      |
| 18 S  | Nitrobenzene-d5              | 0.456 | 0.433  | 4.9    | 71    | 0.00      |
| 19 M  | Nitrobenzene                 | 0.424 | 0.403  | 5.0    | 66    | 0.00      |
| 20 M  | Isophorone                   | 0.893 | 0.801  | 10.4   | 70    | 0.00      |
| 21 MC | 2-Nitrophenol                | 0.210 | 0.193  | 8.1    | 69    | 0.02      |
| 22 M  | 2,4-Dimethylphenol           | 0.394 | 0.394  | -0.0   | 74    | 0.04      |
| 23 M  | bis(2-Chloroethoxy) methane  | 0.456 | 0.437  | 4.1    | 69    | 0.00      |
| 24 MC | 2,4-Dichlorophenol           | 0.298 | 0.276  | 7.3    | 68    | 0.06      |
| 25 M  | 1,2,4-Trichlorobenzene       | 0.317 | 0.308  | 2.8    | 69    | 0.00      |
| 26 M  | Naphthalene                  | 0.979 | 1.005  | -2.7   | 75    | 0.02      |
| 27 T  | 4-Chloroaniline              | 0.463 | 0.417  | 9.9    | 64    | 0.02      |
| 28 MC | Hexachlorobutadiene          | 0.185 | 0.171  | 7.4    | 66    | 0.02      |
| 29 MC | 4-Chloro-3-methylphenol      | 0.384 | 0.354  | 7.9    | 66    | 0.06      |
| 30 M  | 2-Chloronaphthalene          | 0.696 | 0.677  | 2.7    | 70    | 0.04      |
| 31 T  | 2-Methylnaphthalene          | 0.786 | 0.928  | -18.1  | 95    | 0.02      |
| 32 I  | Acenaphthene-d10             | 1.000 | 1.000  | 0.0    | 70    | 0.04      |
| 33 P  | Hexachlorocyclopentadiene    | 0.278 | 0.256  | 7.9    | 70    | 0.02      |
| 34 MC | 2,4,6-Trichlorophenol        | 0.415 | 0.340  | 18.2   | 63    | 0.04      |
| 35 T  | 2,4,5-Trichlorophenol        | 0.324 | 0.372  | -14.8  | 70    | 0.06      |
| 36 S  | 2-Fluorobiphenyl             | 1.200 | 1.208  | -0.7   | 72    | 0.04      |
| 37 T  | 2-Nitroaniline               | 0.549 | 0.507  | 7.6    | 62    | 0.04      |
| 38 M  | Dimethylphthalate            | 1.299 | 1.315  | -1.2   | 71    | 0.04      |
| 39 M  | Acenaphthylene               | 1.704 | 1.765  | -3.6   | 72    | 0.04      |
| 40 M  | 2,6-Dinitrotoluene           | 0.310 | 0.308  | 0.7    | 66    | 0.04      |

(# ) = Out of Range

B8022.D BNACLP.M

Wed Jun 28 13:54:12 1995

BNA

Page 1

Acq On : 26 Jun 95 1:32 am Operator: SCOTTV SUP  
 Sample : 50 STD..... Converted from RTE d Inst : ABNA  
 Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Thu Jun 15 14:15:34 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|       | Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev (Min) |
|-------|-----------------------------|-------|-------|-------|-------|-----------|
| 1 T   | 3-Nitroaniline              | 0.346 | 0.332 | 3.9   | 64    | 0.06      |
| 2 CM  | Acenaphthene                | 1.025 | 1.045 | -1.9  | 71    | 0.04      |
| 43 MP | 2,4-Dinitrophenol           | 0.172 | 0.155 | 10.3  | 70    | 0.06      |
| 44 PM | 4-Nitrophenol               | 0.166 | 0.158 | 4.4   | 66    | 0.09      |
| 45 T  | Dibenzofuran                | 1.609 | 1.532 | 4.7   | 64    | 0.04      |
| 46 M  | 2,4-Dinitrotoluene          | 1.167 | 1.178 | -0.9  | 72    | 0.05      |
| 47 M  | Diethylphthalate            | 1.443 | 1.428 | 1.1   | 69    | 0.02      |
| 48 M  | Fluorene                    | 1.259 | 1.274 | -1.2  | 73    | 0.05      |
| 49 M  | 4-Chlorophenyl-phenylether  | 0.596 | 0.606 | -1.6  | 72    | 0.05      |
| 50    | Phenanthrene-d10            | 1.000 | 1.000 | 0.0   | 67    | 0.05      |
| 51 T  | 4-Nitroaniline              | 0.166 | 0.198 | -19.1 | 62    | 0.05      |
| 52 MC | 4,6-Dinitro-2-methylphenol  | 0.132 | 0.136 | -3.3  | 71    | 0.05      |
| 53 T  | n-Nitrosodiphenylamine      | 0.508 | 0.555 | -9.2  | 70    | 0.05      |
| 54 S  | 2,4,6-Tribromophenol        | 0.108 | 0.091 | 15.7  | 58    | 0.05      |
| 55    | 1,2-Diphenylhydrazine (as a | 1.211 | 1.303 | -7.6  | 67    | 0.05      |
| 56 M  | 4-Bromophenyl-phenylether   | 0.206 | 0.205 | 0.5   | 63    | 0.05      |
| 57 M  | Hexachlorobenzene           | 0.215 | 0.185 | 13.9  | 54    | 0.05      |
| 58 CM | Pentachlorophenol           | 0.137 | 0.134 | 2.3   | 68    | 0.07      |
| 59 M  | Phenanthrene                | 1.094 | 1.121 | -2.4  | 69    | 0.05      |
| 60 M  | Anthracene                  | 1.009 | 1.054 | -4.5  | 69    | 0.05      |
| 61    | Carbazole                   | 0.944 | 0.932 | 1.2   | 65    | 0.07      |
| 62 M  | Di-n-butylphthalate         | 1.606 | 1.858 | -15.7 | 76    | 0.05      |
| 63 MC | Fluoranthene                | 1.035 | 1.239 | -19.7 | 74    | 0.07      |
| 64 I  | Chrysene-d12                | 1.000 | 1.000 | 0.0   | 71    | 0.10      |
| 65    | Benzidine                   | 0.437 | 0.411 | 5.9   | 73    | 0.09      |
| 66 M  | Pyrene                      | 1.502 | 1.348 | 10.2  | 75    | 0.07      |
| 67 S  | Terphenyl-d14               | 1.062 | 0.883 | 16.9  | 71    | 0.09      |
| 68 M  | Butylbenzylphthalate        | 0.962 | 0.919 | 4.4   | 77    | 0.09      |
| 69 M  | Benzo[a]anthracene          | 1.516 | 1.273 | 16.0  | 67    | 0.10      |
| 70 M  | 3,3'-Dichlorobenzidine      | 0.386 | 0.365 | 5.5   | 73    | 0.10      |
| 71 M  | Chrysene                    | 0.843 | 0.998 | -18.4 | 92    | 0.10      |
| 72 M  | bis(2-Ethylhexyl)phthalate  | 1.364 | 1.344 | 1.5   | 76    | 0.08      |
| 73 I  | Perylene-d12                | 1.000 | 1.000 | 0.0   | 102   | 0.09      |
| 74 MC | Di-n-octylphthalate         | 5.094 | 4.618 | 9.4   | 100   | 0.08      |
| 75 M  | Benzo[b]fluoranthene        | 2.467 | 2.164 | 12.3  | 88    | 0.10      |
| 76 m  | Benzo[k]fluoranthene        | 1.190 | 1.213 | -1.9  | 112   | 0.10      |
| 77 mc | Benzo[a]pyrene              | 1.227 | 1.263 | -2.9  | 95    | 0.10      |
| 78 m  | Indeno[1,2,3-cd]pyrene      | 0.452 | 0.378 | 16.3  | 93    | 0.05      |
| 79 m  | Dibenz[a,h]anthracene       | 0.436 | 0.371 | 14.9  | 104   | 0.03      |

(#) = Out of Range

B8022.D BNACLP.M

Wed Jun 28 13:54:32 1995

BNA

Page 2

Data File : C:\HPCHEM\1\DATA2\B8022.D

Acq On : 26 Jun 95 1:32 am

Sample : 50 STD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Vial: 2

259

Operator: SCOTTV

SUP

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound                       | AvgRF | CCRF   | %Dev   | Area% | Dev (Min) |
|--------------------------------|-------|--------|--------|-------|-----------|
| 0 M Benzo[g,h,i]perylene       | 0.356 | 0.325  | 8.7    | 102   | 0.03      |
| 81 1-Methyl naphthalene        | 0.000 | 0.000# | 0.0    | 27#   | 0.00      |
| 82 7,12-Dimethylbenz(a)anthrac | 0.000 | 0.000# | 0.0    | 97    | 0.09      |
| 83 Quinoline                   | 0.000 | 0.000# | 0.0    | 62    | 0.02      |
| 84 Thiophenol                  | 0.000 | 0.000# | 0.0    | 0#    | -5.47#    |
| 85 4-Methyl chrysene           | 0.000 | 0.000# | 0.0    | 78    | 0.10      |
| 86 Dibenz(a,j)acridine         | 0.000 | 0.000# | 0.0    | 82    | 0.08      |
| 87 Indene                      | 0.000 | 0.000# | 0.0    | 0#    | -9.03#    |
| 88 Benzyl alcohol              | 1.050 | 0.000# | 100.0# | 0#    | -9.70#    |
| 89 Benzoic acid                | 0.964 | 0.000# | 100.0# | 0#    | -12.98#   |

-----  
(#) = Out of Range

B8022.D BNACLP.M

SPCC's out = 0 CCC's out = 0

Wed Jun 28 13:54:35 1995

BNA

Page 3

Data File : c:\hpcchem\1\data2\b8022.d

Acq On : 26 Jun 95 1:32 am

Sample : 50 STD..... Converted from RTE d

Misc :

Quant Time: Jun 28 13:51 1995

Vial: 2 260

Operator: SCOTT

Inst : ABNA

BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.03  | 152  | 21442    | 40.00 | ug/mL | 0.00      |
| 17) Naphthalene-d8        | 12.77 | 136  | 89144    | 40.00 | ug/mL | 0.02      |
| 32) Acenaphthene-d10      | 18.08 | 164  | 57304    | 40.00 | ug/mL | 0.04      |
| 50) Phenanthrene-d10      | 22.57 | 188  | 88470    | 40.00 | ug/mL | 0.05      |
| 64) Chrysene-d12          | 30.68 | 240  | 83496    | 40.00 | ug/mL | 0.10      |
| 73) Perylene-d12          | 34.69 | 264  | 46248    | 40.00 | ug/mL | 0.09      |

| System Monitoring Compounds |       |     |       |             | %Recovery |
|-----------------------------|-------|-----|-------|-------------|-----------|
| 2) 2-Fluorophenol           | 5.51  | 112 | 28986 | 47.79 ug/mL | 47.79%    |
| 3) Phenol-d5                | 8.43  | 99  | 46263 | 46.09 ug/mL | 46.09%    |
| 18) Nitrobenzene-d5         | 10.71 | 82  | 48301 | 47.56 ug/mL | 47.56%    |
| 36) 2-Fluorobiphenyl        | 16.23 | 172 | 86505 | 50.33 ug/mL | 50.33%    |
| 54) 2,4,6-Tribromophenol    | 20.51 | 330 | 10076 | 42.17 ug/mL | 42.17%    |
| 67) Terphenyl-d14           | 27.73 | 244 | 92120 | 41.57 ug/mL | 41.57%    |

| Target Compounds                |       |     |        |              | Qvalue |
|---------------------------------|-------|-----|--------|--------------|--------|
| 4) N-nitrosodimethylamine       | 2.31  | 74  | 15915  | 51.35 ug/mlm | 0      |
| 6) Phenol                       | 8.45  | 94  | 44171  | 49.41 ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.44 | 93  | 55126  | 50.76 ug/mL  | 93     |
| 8) 2-Chlorophenol               | 8.47  | 128 | 33394  | 49.08 ug/mL# | 88     |
| 9) 1,3-Dichlorobenzene          | 8.84  | 146 | 37929  | 51.09 ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene         | 9.09  | 146 | 38821  | 50.68 ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.47  | 146 | 37367  | 51.35 ug/mL  | 98     |
| 12) 2-Methylphenol              | 10.67 | 108 | 35563  | 55.08 ug/mL  | 64     |
| 13) bis(2-chloroisopropyl) ethe | 10.13 | 45  | 52877  | 52.79 ug/mL# | 67     |
| 14) 4-Methylphenol              | 10.67 | 108 | 35563  | 50.20 ug/mL  | 97     |
| 15) N-Nitroso-Di-n-propylamine  | 10.49 | 70  | 36342  | 50.38 ug/mL  | 98     |
| 16) Hexachloroethane            | 10.44 | 117 | 20194  | 51.08 ug/mL  | 100    |
| 19) Nitrobenzene                | 10.76 | 77  | 44854  | 47.48 ug/mL# | 74     |
| 20) Isophorone                  | 11.57 | 82  | 89209  | 44.81 ug/mL  | 98     |
| 21) 2-Nitrophenol               | 11.71 | 139 | 21551  | 45.97 ug/mL  | 86     |
| 22) 2,4-Dimethylphenol          | 10.67 | 107 | 43864  | 50.01 ug/mL# | 32     |
| 23) bis(2-Chloroethoxy) methane | 8.16  | 93  | 48749  | 47.96 ug/mL# | 42     |
| 24) 2,4-Dichlorophenol          | 12.54 | 162 | 30803  | 46.36 ug/mL# | 94     |
| 25) 1,2,4-Trichlorobenzene      | 12.65 | 180 | 34317  | 48.59 ug/mL  | 99     |
| 26) Naphthalene                 | 12.82 | 128 | 112022 | 51.35 ug/mL# | 91     |
| 27) 4-Chloroaniline             | 13.17 | 127 | 46512  | 45.07 ug/mL  | 99     |
| 28) Hexachlorobutadiene         | 13.34 | 225 | 19100  | 46.32 ug/mL  | 97     |
| 29) 4-Chloro-3-methylphenol     | 14.92 | 107 | 39399  | 46.05 ug/mL# | 86     |
| 30) 2-Chloronaphthalene         | 16.41 | 162 | 75446  | 48.64 ug/mL  | 99     |
| 31) 2-Methylnaphthalene         | 14.96 | 142 | 103416 | 59.06 ug/mL  | 99     |
| 33) Hexachlorocyclopentadiene   | 15.48 | 237 | 18372  | 46.07 ug/mL  | 99     |
| 34) 2,4,6-Trichlorophenol       | 15.94 | 196 | 24339  | 40.90 ug/mL  | 99     |
| 35) 2,4,5-Trichlorophenol       | 16.06 | 196 | 26643  | 57.39 ug/mL  | 97     |

(#)=qualifier out of range (m)=manual integration

b8022.d BNACLP.M

Wed Jun 28 13:56:53 1995

BNA

Page 1

Data File : c:\hpcchem\1\data2\b8022.d Vial: 2 261  
 Acq On : 26 Jun 95 1:32 am Operator: SCOTTV  
 Sample : 50 STD..... Converted from RTE d Inst : ABNA  
 Misc : BT Multiplr: 1.00  
 Quant Time: Jun 28 13:51 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Thu Jun 15 14:15:34 1995  
 Response via : Multiple Level Calibration

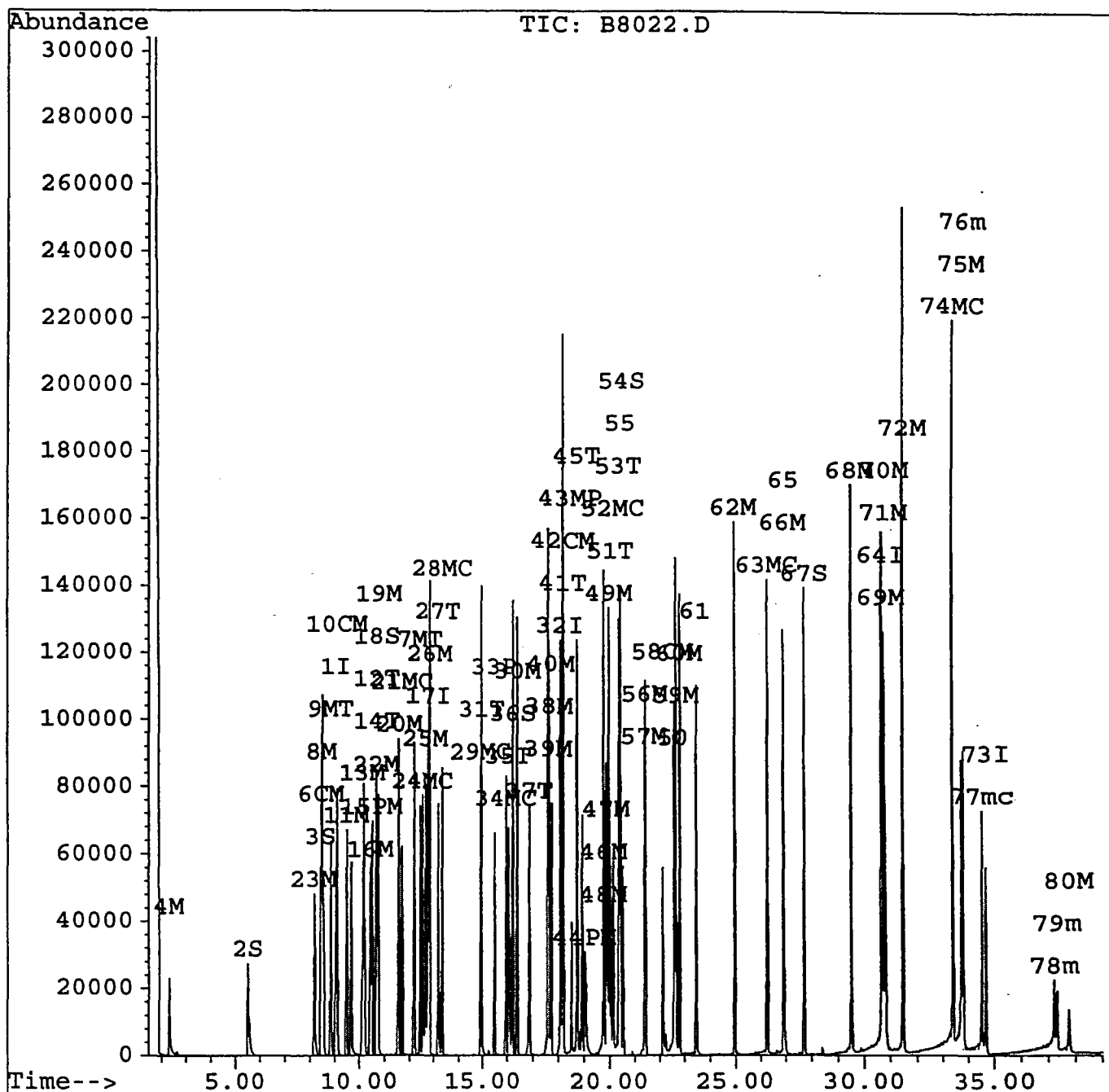
| Compound                       | R.T.  | QIon | Response | Conc  | Unit   | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 37) 2-Nitroaniline             | 16.89 | 65   | 36347    | 46.19 | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.66 | 163  | 94216    | 50.61 | ug/mL  | 100    |
| 39) Acenaphthylene             | 17.62 | 152  | 126444   | 51.78 | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.74 | 165  | 22060    | 49.64 | ug/mL  | 98     |
| 41) 3-Nitroaniline             | 18.18 | 138  | 23811    | 48.05 | ug/mL  | 91     |
| 42) Acenaphthene               | 18.18 | 153  | 74851    | 50.97 | ug/mL  | 100    |
| 43) 2,4-Dinitrophenol          | 18.51 | 184  | 11069    | 44.87 | ug/mL# | 79     |
| 44) 4-Nitrophenol              | 19.03 | 109  | 11345    | 47.81 | ug/mL  | 95     |
| 45) Dibenzofuran               | 18.74 | 168  | 109763   | 47.63 | ug/mL  | 97     |
| 46) 2,4-Dinitrotoluene         | 19.78 | 165  | 84381    | 50.47 | ug/mL# | 34     |
| 47) Diethylphthalate           | 19.87 | 149  | 102259   | 49.47 | ug/mL  | 98     |
| 48) Fluorene                   | 19.78 | 166  | 91237    | 50.59 | ug/mL  | 98     |
| 49) 4-Chlorophenyl-phenylether | 19.97 | 204  | 43401    | 50.81 | ug/mL# | 89     |
| 51) 4-Nitroaniline             | 20.05 | 138  | 21893    | 59.54 | ug/mL  | 98     |
| 52) 4,6-Dinitro-2-methylphenol | 20.14 | 198  | 15054    | 51.65 | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.38 | 169  | 61379    | 54.59 | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.43 | 77   | 144138   | 53.80 | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.42 | 248  | 22677    | 49.75 | ug/mL  | 95     |
| 57) Hexachlorobenzene          | 21.40 | 284  | 20432    | 43.03 | ug/mL# | 55     |
| 58) Pentachlorophenol          | 22.13 | 266  | 14850    | 48.83 | ug/mL  | 96     |
| 59) Phenanthrene               | 22.65 | 178  | 123975   | 51.21 | ug/mL  | 99     |
| 60) Anthracene                 | 22.80 | 178  | 116611   | 52.25 | ug/mLm | 100    |
| 61) Carbazole                  | 23.46 | 167  | 103091   | 49.39 | ug/ml  | 99     |
| 62) Di-n-butylphthalate        | 24.96 | 149  | 205497   | 57.84 | ug/mL  | 99     |
| 63) Fluoranthene               | 26.27 | 202  | 136995   | 59.85 | ug/mLm | 90     |
| 65) Benzidine                  | 26.96 | 184  | 42938    | 47.03 | ug/mlm | 100    |
| 66) Pyrene                     | 26.90 | 202  | 140703   | 44.89 | ug/mL# | 91     |
| 68) Butylbenzylphthalate       | 29.50 | 149  | 95939    | 47.80 | ug/mL  | 87     |
| 69) Benzo[a]anthracene         | 30.66 | 228  | 132833   | 41.99 | ug/mLm | 100    |
| 70) 3,3'-Dichlorobenzidine     | 30.82 | 252  | 38125    | 47.27 | ug/mL# | 96     |
| 71) Chrysene                   | 30.76 | 228  | 104112   | 59.18 | ug/mLm | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.47 | 149  | 140270   | 49.26 | ug/mL  | 100    |
| 74) Di-n-octylphthalate        | 33.38 | 149  | 266949   | 45.32 | ug/mLm | 99     |
| 75) Benzo[b]fluoranthene       | 33.73 | 252  | 125118   | 43.87 | ug/mLm | 95     |
| 76) Benzo[k]fluoranthene       | 33.80 | 252  | 70141    | 50.97 | ug/mLm | 97     |
| 77) Benzo[a]pyrene             | 34.54 | 252  | 72996    | 51.47 | ug/mLm | 96     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.21 | 276  | 21880    | 41.83 | ug/mL  | 100    |
| 79) Dibenz[a,h]anthracene      | 37.31 | 278  | 21439    | 42.56 | ug/mL  | 95     |
| 80) Benzo[g,h,i]perylene       | 37.77 | 276  | 18782    | 45.67 | ug/mLm | 92     |

(#) = qualifier out of range (m) = manual integration



Data File : C:\hpcchem\1\data2\b8022.d Vial: 2  
 Acq On : 26 Jun 95 1:32 am Operator: SCOTTV  
 Sample : 50 STD..... Converted from RTE d Inst : ABNA  
 Misc : BT Multiplr: 1.00  
 Quant Time: Jun 28 13:51 1995

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Thu Jun 15 14:15:34 1995  
 Response via : Multiple Level Calibration



Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|             | IS1 (DCB) |      | IS2 (NPT) |       | IS3 (ANT) |       |
|-------------|-----------|------|-----------|-------|-----------|-------|
|             | AREA #    | RT # | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 29236     | 9.21 | 116999    | 12.92 | 80656     | 18.26 |
| UPPER LIMIT | 58472     | 9.71 | 233998    | 13.42 | 161312    | 18.76 |
| LOWER LIMIT | 14618     | 8.71 | 58500     | 12.42 | 40328     | 17.76 |
| SAMPLE NO.  |           |      |           |       |           |       |
| 01 SBLK01   | 29342     | 9.21 | 113640    | 12.92 | 77393     | 18.25 |
| 02 9521072B | 43362     | 9.20 | 172473    | 12.92 | 120771    | 18.25 |
| 03 9521073B | 49674     | 9.20 | 207002    | 12.94 | 136613    | 18.27 |
| 04 SBLK02   | 45568     | 9.20 | 183778    | 12.92 | 124916    | 18.27 |
| 05 9522265B | 38448     | 9.21 | 156239    | 12.92 | 104790    | 18.25 |
| 06 9522845B | 34293     | 9.20 | 139874    | 12.92 | 94484     | 18.25 |
| 07 SBLK03   | 31802     | 9.20 | 131302    | 12.92 | 86836     | 18.27 |
| 08 9523339B | 31877     | 9.20 | 132687    | 12.92 | 87914     | 18.25 |
| 09 9523341B | 37996     | 9.20 | 159444    | 12.94 | 104434    | 18.27 |
| 10 9523342B | 34168     | 9.20 | 146228    | 12.94 | 97312     | 18.27 |
| 11 9523343B | 33809     | 9.20 | 139851    | 12.92 | 93023     | 18.27 |
| 12 9523530B | 34840     | 9.20 | 145007    | 12.92 | 98737     | 18.25 |
| 13 9523531B | 35055     | 9.20 | 145276    | 12.92 | 99265     | 18.27 |
| 14 9523533B | 36725     | 9.20 | 152052    | 12.92 | 102907    | 18.27 |
| 15 9523534B | 37321     | 9.29 | 127658    | 13.06 | 64338     | 18.50 |
| 16 9523535B | 36905     | 9.21 | 144207    | 12.92 | 97310     | 18.26 |
| 17 9523536B | 36125     | 9.20 | 148482    | 12.92 | 99681     | 18.27 |
| 18 SBLK04   | 38489     | 9.20 | 152333    | 12.92 | 104920    | 18.25 |
| 19 9523789B | 39839     | 9.20 | 162610    | 12.92 | 110929    | 18.27 |
| 20 9523792B | 36962     | 9.20 | 155161    | 12.92 | 105988    | 18.27 |
| 21 9523787B | 38496     | 9.20 | 159554    | 12.92 | 108441    | 18.27 |
| 22 SBLK05   | 43303     | 9.20 | 177127    | 12.92 | 122916    | 18.27 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|               | IS1 (DCB)<br>AREA # | RT # | IS2 (NPT)<br>AREA # | RT #  | IS3 (ANT)<br>AREA # | RT #  |
|---------------|---------------------|------|---------------------|-------|---------------------|-------|
| 12 HOUR STD   | 29236               | 9.21 | 116999              | 12.92 | 80656               | 18.26 |
| UPPER LIMIT   | 58472               | 9.71 | 233998              | 13.42 | 161312              | 18.76 |
| LOWER LIMIT   | 14618               | 8.71 | 58500               | 12.42 | 40328               | 17.76 |
| SAMPLE<br>NO. |                     |      |                     |       |                     |       |
| 01 22654MS    | 33780               | 9.20 | 129967              | 12.94 | 93254               | 18.26 |
| 02 22654MSD   | 35303               | 9.20 | 144937              | 12.94 | 99611               | 18.26 |
| 03 22659MS    | 28616               | 9.20 | 119812              | 12.94 | 81829               | 18.26 |
| 04 22659MSD   | 30456               | 9.21 | 121585              | 12.94 | 84364               | 18.26 |
| 05            |                     |      |                     |       |                     |       |
| 06            |                     |      |                     |       |                     |       |
| 07            |                     |      |                     |       |                     |       |
| 08            |                     |      |                     |       |                     |       |
| 09            |                     |      |                     |       |                     |       |
| 10            |                     |      |                     |       |                     |       |
| 11            |                     |      |                     |       |                     |       |
| 12            |                     |      |                     |       |                     |       |
| 13            |                     |      |                     |       |                     |       |
| 14            |                     |      |                     |       |                     |       |
| 15            |                     |      |                     |       |                     |       |
| 16            |                     |      |                     |       |                     |       |
| 17            |                     |      |                     |       |                     |       |
| 18            |                     |      |                     |       |                     |       |
| 19            |                     |      |                     |       |                     |       |
| 20            |                     |      |                     |       |                     |       |
| 21            |                     |      |                     |       |                     |       |
| 22            |                     |      |                     |       |                     |       |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7803.DDate Analyzed: 6/3/95Instrument ID: ABNATime Analyzed: 1013

|               | IS4 (PHN)<br>AREA # | RT #  | IS5 (CRY)<br>AREA # | RT #  | IS6 (PRY)<br>AREA # | RT #  |
|---------------|---------------------|-------|---------------------|-------|---------------------|-------|
| 12 HOUR STD   | 134208              | 22.77 | 129676              | 30.89 | 93467               | 34.90 |
| UPPER LIMIT   | 268416              | 23.27 | 259352              | 31.39 | 186934              | 35.40 |
| LOWER LIMIT   | 67104               | 22.27 | 64838               | 30.39 | 46734               | 34.40 |
| SAMPLE<br>NO. |                     |       |                     |       |                     |       |
| 01 SBLK01     | 127774              | 22.76 | 144639              | 30.86 | 143369              | 34.89 |
| 02 9521072B   | 201946              | 22.77 | 208937              | 30.89 | 160791              | 34.90 |
| 03 9521073B   | 222787              | 22.77 | 231737              | 30.89 | 165808              | 34.90 |
| 04 SBLK02     | 200423              | 22.77 | 227269              | 30.88 | 184816              | 34.91 |
| 05 9522265B   | 172502              | 22.78 | 184570              | 30.88 | 122938              | 34.91 |
| 06 9522845B   | 149864              | 22.78 | 156654              | 30.88 | 124082              | 34.91 |
| 07 SBLK03     | 142609              | 22.77 | 151919              | 30.88 | 122270              | 34.91 |
| 08 9523339B   | 145640              | 22.78 | 157437              | 30.89 | 128975              | 34.92 |
| 09 9523341B   | 172617              | 22.77 | 198222              | 30.90 | 166777              | 34.93 |
| 10 9523342B   | 156213              | 22.77 | 174808              | 30.88 | 147217              | 34.91 |
| 11 9523343B   | 149747              | 22.77 | 162481              | 30.88 | 137109              | 34.91 |
| 12 9523530B   | 159922              | 22.78 | 179407              | 30.88 | 152667              | 34.91 |
| 13 9523531B   | 164218              | 22.77 | 179435              | 30.88 | 151215              | 34.91 |
| 14 9523533B   | 167089              | 22.77 | 185071              | 30.88 | 155624              | 34.91 |
| 15 9523534B   | 126172              | 22.95 | 162548              | 30.91 | 85072               | 34.88 |
| 16 9523535B   | 153052              | 22.76 | 160811              | 30.89 | 134801              | 34.89 |
| 17 9523536B   | 149413              | 22.77 | 158425              | 30.88 | 129419              | 34.91 |
| 18 SBLK04     | 168411              | 22.78 | 175380              | 30.88 | 148566              | 34.91 |
| 19 9523789B   | 183194              | 22.77 | 209328              | 30.88 | 181543              | 34.91 |
| 20 9523792B   | 175832              | 22.77 | 198461              | 30.88 | 168915              | 34.91 |
| 21 9523787B   | 177208              | 22.77 | 191680              | 30.88 | 155077              | 34.91 |
| 22 SBLK05     | 199698              | 22.77 | 216974              | 30.88 | 174620              | 34.91 |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

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Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID (Standard): B7803.D Date Analyzed: 6/3/95  
 Instrument ID: ABNA Time Analyzed: 1013

|             | IS4 (PHN) |       | IS5 (CRY) |       | IS6 (PRY) |       |
|-------------|-----------|-------|-----------|-------|-----------|-------|
|             | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 134208    | 22.77 | 129676    | 30.89 | 93467     | 34.90 |
| UPPER LIMIT | 268416    | 23.27 | 259352    | 31.39 | 186934    | 35.40 |
| LOWER LIMIT | 67104     | 22.27 | 64838     | 30.39 | 46734     | 34.40 |
| SAMPLE NO.  |           |       |           |       |           |       |
| 01 22654MS  | 155903    | 22.77 | 148922    | 30.91 | 65345     | 34.91 |
| 02 22654MSD | 164759    | 22.77 | 152801    | 30.91 | 66464     | 34.91 |
| 03 22659MS  | 135678    | 22.77 | 133913    | 30.90 | 64806     | 34.89 |
| 04 22659MSD | 145091    | 22.77 | 140877    | 30.90 | 65773     | 34.90 |
| 05          |           |       |           |       |           |       |
| 06          |           |       |           |       |           |       |
| 07          |           |       |           |       |           |       |
| 08          |           |       |           |       |           |       |
| 09          |           |       |           |       |           |       |
| 10          |           |       |           |       |           |       |
| 11          |           |       |           |       |           |       |
| 12          |           |       |           |       |           |       |
| 13          |           |       |           |       |           |       |
| 14          |           |       |           |       |           |       |
| 15          |           |       |           |       |           |       |
| 16          |           |       |           |       |           |       |
| 17          |           |       |           |       |           |       |
| 18          |           |       |           |       |           |       |
| 19          |           |       |           |       |           |       |
| 20          |           |       |           |       |           |       |
| 21          |           |       |           |       |           |       |
| 22          |           |       |           |       |           |       |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7981.D

Date Analyzed: 6/22/95

Instrument ID: ABNA

Time Analyzed: 1416

|             | IS1 (DCB) |      | IS2 (NPT) |       | IS3 (ANT) |       |
|-------------|-----------|------|-----------|-------|-----------|-------|
|             | AREA #    | RT # | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 26103     | 9.07 | 106515    | 12.79 | 71380     | 18.10 |
| UPPER LIMIT | 52206     | 9.57 | 213030    | 13.29 | 142760    | 18.60 |
| LOWER LIMIT | 13052     | 8.57 | 53258     | 12.29 | 35690     | 17.60 |
| SAMPLE NO.  |           |      |           |       |           |       |
| 01 SBLK01   | 34316     | 9.08 | 142408    | 12.79 | 94676     | 18.10 |
| 02 9526814B | 34009     | 9.07 | 138524    | 12.79 | 88974     | 18.12 |
| 03 9526815B | 36289     | 9.07 | 57937     | 12.77 | 95834     | 18.10 |
| 04 9526816B | 34943     | 9.07 | 146346    | 12.79 | 98212     | 18.10 |
| 05 9526817B | 35327     | 9.07 | 143390    | 12.79 | 94793     | 18.10 |
| 06 SBLK02   | 34939     | 9.05 | 142327    | 12.77 | 93901     | 18.10 |
| 07 9526435B | 36162     | 9.05 | 149738    | 12.77 | 97464     | 18.11 |
| 08 9526436B | 34331     | 9.06 | 140641    | 12.78 | 97271     | 18.10 |
| 09 9526440B | 35545     | 9.06 | 141078    | 12.77 | 94465     | 18.11 |
| 10 9526441B | 36218     | 9.08 | 147695    | 12.81 | 97006     | 18.11 |
| 11 9526442B | 33784     | 9.06 | 137433    | 12.77 | 90557     | 18.11 |
| 12 9526443B | 36113     | 9.07 | 151222    | 12.80 | 100496    | 18.12 |
| 13 9526444B | 34727     | 9.07 | 137792    | 12.78 | 89809     | 18.12 |
| 14 9526445B | 34293     | 9.08 | 142173    | 12.79 | 9326      | 18.10 |
| 15 9526459B | 33066     | 9.07 | 134948    | 12.78 | 88237     | 18.11 |
| 16          |           |      |           |       |           |       |
| 17          |           |      |           |       |           |       |
| 18          |           |      |           |       |           |       |
| 19          |           |      |           |       |           |       |
| 20          |           |      |           |       |           |       |
| 21          |           |      |           |       |           |       |
| 22          |           |      |           |       |           |       |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B7981.D

Date Analyzed: 6/22/95

Instrument ID: ABNA

Time Analyzed: 1416

|             | IS4 (PHN) | RT #  | ISS (CRY) | RT #  | IS6 (PRY) | RT #  |
|-------------|-----------|-------|-----------|-------|-----------|-------|
|             | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 113017    | 22.61 | 83825     | 30.72 | 40886     | 34.71 |
| UPPER LIMIT | 226034    | 23.11 | 167650    | 31.22 | 81772     | 35.21 |
| LOWER LIMIT | 56509     | 22.11 | 41913     | 30.22 | 20443     | 34.21 |
| SAMPLE NO.  |           |       |           |       |           |       |
| 01 SBLK01   | 152107    | 22.61 | 165601    | 30.71 | 44781     | 34.72 |
| 02 9526814B | 142760    | 22.60 | 158874    | 30.71 | 46429     | 34.73 |
| 03 9526815B | 152885    | 22.60 | 148343    | 30.71 | 77114     | 34.74 |
| 04 9526816B | 159197    | 22.60 | 149886    | 30.71 | 74415     | 34.74 |
| 05 9526817B | 140113    | 22.60 | 157608    | 30.71 | 76217     | 34.73 |
| 06 SBLK02   | 156914    | 22.60 | 159983    | 30.71 | 80824     | 34.73 |
| 07 9526435B | 151393    | 22.64 | 151540    | 30.71 | 52462     | 34.72 |
| 08 9526436B | 152005    | 22.61 | 164157    | 30.71 | 57077     | 34.72 |
| 09 9526440B | 159017    | 22.61 | 161456    | 30.72 | 45950     | 34.72 |
| 10 9526441B | 157441    | 22.62 | 155217    | 30.72 | 58271     | 34.73 |
| 11 9526442B | 140709    | 22.61 | 146500    | 30.72 | 60465     | 34.73 |
| 12 9526443B | 163328    | 22.62 | 138416    | 30.71 | 71298     | 34.73 |
| 13 9526444B | 142133    | 22.62 | 133311    | 30.71 | 80458     | 34.74 |
| 14 9526445B | 147318    | 22.61 | 143619    | 30.73 | 72989     | 34.74 |
| 15 9526459B | 131046    | 22.62 | 134435    | 30.72 | 64452     | 34.75 |
| 16          |           |       |           |       |           |       |
| 17          |           |       |           |       |           |       |
| 18          |           |       |           |       |           |       |
| 19          |           |       |           |       |           |       |
| 20          |           |       |           |       |           |       |
| 21          |           |       |           |       |           |       |
| 22          |           |       |           |       |           |       |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B8022.D

Date Analyzed: 6/26/95

Instrument ID: ABNA

Time Analyzed: 0132

|             | IS1 (DCB) |      | IS2 (NPT) |       | IS3 (ANT) |       |
|-------------|-----------|------|-----------|-------|-----------|-------|
|             | AREA #    | RT # | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 21442     | 9.03 | 89144     | 12.77 | 57304     | 18.08 |
| UPPER LIMIT | 42884     | 9.53 | 178288    | 13.27 | 114608    | 18.58 |
| LOWER LIMIT | 10721     | 8.53 | 44572     | 12.27 | 28652     | 17.58 |
| SAMPLE NO.  |           |      |           |       |           |       |
| 01 SBLK01   | 18647     | 9.05 | 76527     | 12.74 | 50131     | 18.07 |
| 02 9526397B | 23451     | 9.05 | 97748     | 12.74 | 61605     | 18.08 |
| 03 9526427B | 24416     | 9.05 | 99072     | 12.75 | 65585     | 18.08 |
| 04 9526428B | 24553     | 9.03 | 101580    | 12.75 | 66203     | 18.08 |
| 05 9526429B | 27637     | 9.03 | 109180    | 12.75 | 72940     | 18.08 |
| 06 9526430B | 30774     | 9.04 | 131052    | 12.75 | 85269     | 18.07 |
| 07 9526431B | 28375     | 9.04 | 119977    | 12.73 | 76248     | 18.07 |
| 08 9526432B | 26867     | 9.03 | 111812    | 12.75 | 72507     | 18.06 |
| 09 9526433B | 31882     | 9.03 | 132938    | 12.75 | 85781     | 18.06 |
| 10 9526434B | 31359     | 9.03 | 130386    | 12.75 | 86662     | 18.06 |
| 11 9526404B | 27624     | 9.15 | 99335     | 12.91 | 50190     | 18.32 |
| 12 SBLK02   | 34799     | 9.04 | 143633    | 12.75 | 96973     | 18.06 |
| 13 9526460B | 31927     | 9.03 | 123816    | 12.75 | 83112     | 18.06 |
| 14 9526461B | 32045     | 9.03 | 130665    | 12.75 | 88931     | 18.06 |
| 15 9526462B | 31027     | 9.04 | 127134    | 12.75 | 84900     | 18.06 |
| 16 9526605B | 32505     | 9.03 | 129997    | 12.74 | 90498     | 18.06 |
| 17 9526606B | 33509     | 9.03 | 130010    | 12.74 | 89335     | 18.06 |
| 18 9526607B | 31707     | 9.03 | 125566    | 12.74 | 86746     | 18.06 |
| 19 9526608B | 29751     | 9.03 | 123689    | 12.75 | 85078     | 18.06 |
| 20 9526609B | 32785     | 9.03 | 132417    | 12.73 | 89239     | 18.06 |
| 21          |           |      |           |       |           |       |
| 22          |           |      |           |       |           |       |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.



Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

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Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): B8022.DDate Analyzed: 6/26/95Instrument ID: ABNATime Analyzed: 0132

|             | IS4 (PHN) |       | IS5 (CRY) |       | IS6 (PRY) |       |
|-------------|-----------|-------|-----------|-------|-----------|-------|
|             | AREA #    | RT #  | AREA #    | RT #  | AREA #    | RT #  |
| 12 HOUR STD | 88470     | 22.57 | 83496     | 30.68 | 46248     | 34.69 |
| UPPER LIMIT | 176940    | 23.07 | 166992    | 31.18 | 92496     | 35.19 |
| LOWER LIMIT | 44235     | 22.07 | 41748     | 30.18 | 23124     | 34.19 |
| SAMPLE NO.  |           |       |           |       |           |       |
| 01 SBLK01   | 82468     | 22.58 | 90615     | 30.68 | 86128     | 34.70 |
| 02 9526397B | 102617    | 22.58 | 113970    | 30.68 | 83805     | 34.71 |
| 03 9526427B | 109899    | 22.58 | 116909    | 30.67 | 78497     | 34.69 |
| 04 9526428B | 106319    | 22.57 | 105542    | 30.67 | 89295     | 34.69 |
| 05 9526429B | 118151    | 22.57 | 120174    | 30.67 | 83249     | 34.70 |
| 06 9526430B | 138762    | 22.57 | 149884    | 30.67 | 58029     | 34.70 |
| 07 9526431B | 128318    | 22.57 | 147780    | 30.68 | 61251     | 34.70 |
| 08 9526432B | 120490    | 22.57 | 139055    | 30.67 | 62024     | 34.69 |
| 09 9526433B | 142537    | 22.57 | 146160    | 30.67 | 48583     | 34.68 |
| 10 9526434B | 139691    | 22.57 | 162373    | 30.67 | 59773     | 34.69 |
| 11 9526404B | 80940     | 22.81 | 108486    | 30.70 | 87968     | 34.66 |
| 12 SBLK02   | 164949    | 22.57 | 155418    | 30.67 | 60234     | 34.68 |
| 13 9526460B | 128520    | 22.57 | 125979    | 30.66 | 86508     | 34.68 |
| 14 9526461B | 150455    | 22.57 | 151786    | 30.67 | 57313     | 34.70 |
| 15 9526462B | 143517    | 22.57 | 163582    | 30.67 | 70818     | 34.70 |
| 16 9526605B | 149315    | 22.56 | 159677    | 30.66 | 32874     | 34.69 |
| 17 9526606B | 146020    | 22.56 | 165364    | 30.67 | 64198     | 34.69 |
| 18 9526607B | 133121    | 22.56 | 156278    | 30.66 | 82524     | 34.69 |
| 19 9526608B | 147468    | 22.58 | 155888    | 30.67 | 60262     | 34.69 |
| 20 9526609B | 142783    | 22.56 | 163992    | 30.67 | 46820     | 34.68 |
| 21          |           |       |           |       |           |       |
| 22          |           |       |           |       |           |       |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

9526459B

FB

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Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATER

Lab Sample ID: 9526459B

Sample wt/vol: 1000.0 (g/mL ML)

Lab File ID: B7998.D

Level: (low/med) \_\_\_\_\_

Date Received: 6/14/95

% Moisture: \_\_\_\_\_

decanted: (Y/N): N

Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               |      | U |
| 67-72-1   | Hexachloroethane              | 1               |      | U |
| 98-95-3   | Nitrobenzene                  | 2               |      | U |
| 78-59-1   | Isophorone                    | 1               |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               |      | U |
| 91-20-3   | Naphthalene                   | 2               |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2               |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               |      | U |
| 131-11-3  | Dimethylphthalate             | 1               |      | U |
| 208-96-8  | Acenaphthylene                | 5               |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               |      | U |
| 83-32-9   | Acenaphthene                  | 3               |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               |      | U |
| 84-66-2   | Diethylphthalate              | 1               |      | U |
| 86-73-7   | Fluorene                      | 3               |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               |      | U |
| 118-74-1  | Hexachlorobenzene             | 2               |      | U |
| 85-01-08  | Phenanthrene                  | 2               |      | U |
| 120-12-7  | Anthracene                    | 2               |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5               |      | U |
| 206-44-0  | Fluoranthene                  | 1               |      | U |
| 92-87-5   | Benzidine                     | 1               |      | U |

**Contract:**

FB

272

Group:

Lab Sample ID: 9526459B

Lab File ID: B7998.D

Date Received: 6/14/95

Date Extracted: 6/20/95

Date Analyzed: 6/23/95

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

273

9526459B

FB

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: 9526459B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7998.D

Level: (low/med) \_\_\_\_\_ Date Received: 6/14/95

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Number TICs found: 0 Concentration Units: \_\_\_\_\_  
(ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc | Q |
|------------|---------------|----|-----------|---|
| 1.         | NONE FOUND    |    |           |   |
| 2.         |               |    |           |   |
| 3.         |               |    |           |   |
| 4.         |               |    |           |   |
| 5.         |               |    |           |   |
| 6.         |               |    |           |   |
| 7.         |               |    |           |   |
| 8.         |               |    |           |   |
| 9.         |               |    |           |   |
| 10.        |               |    |           |   |
| 11.        |               |    |           |   |
| 12.        |               |    |           |   |
| 13.        |               |    |           |   |
| 14.        |               |    |           |   |
| 15.        |               |    |           |   |
| 16.        |               |    |           |   |
| 17.        |               |    |           |   |
| 18.        |               |    |           |   |
| 19.        |               |    |           |   |
| 20.        |               |    |           |   |
| 21.        |               |    |           |   |
| 22.        |               |    |           |   |
| 23.        |               |    |           |   |
| 24.        |               |    |           |   |
| 25.        |               |    |           |   |
| 26.        |               |    |           |   |
| 27.        |               |    |           |   |
| 28.        |               |    |           |   |
| 29.        |               |    |           |   |
| 30.        |               |    |           |   |

Data File : c:\hpchem\1\data2\b7998.d

Vial: 19

Acq On : 23 Jun 95 4:45 am

Operator: SCOTTV

Sample : 26459.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 27 14:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.07  | 152  | 33066    | 40.00 | ug/mL | 0.04     |
| 17) Naphthalene-d8        | 12.78 | 136  | 134948   | 40.00 | ug/mL | 0.03     |
| 32) Acenaphthene-d10      | 18.11 | 164  | 88237    | 40.00 | ug/mL | 0.07     |
| 50) Phenanthrene-d10      | 22.62 | 188  | 131046   | 40.00 | ug/mL | 0.10     |
| 64) Chrysene-d12          | 30.72 | 240  | 134435   | 40.00 | ug/mL | 0.14     |
| 73) Perylene-d12          | 34.75 | 264  | 64452    | 40.00 | ug/mL | 0.15     |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |       |       |        |
|--------------------------|-------|-----|--------|-------|-------|--------|
| 2) 2-Fluorophenol        | 0.00  | 112 | 0      | 0.00  | ug/mL | 0.00%  |
| 3) Phenol-d5             | 9.07  | 99  | 382    | 0.25  | ug/mL | 0.25%  |
| 18) Nitrobenzene-d5      | 10.74 | 82  | 72039  | 46.85 | ug/mL | 46.85% |
| 36) 2-Fluorobiphenyl     | 16.25 | 172 | 133806 | 50.55 | ug/mL | 50.55% |
| 54) 2,4,6-Tribromophenol | 0.00  | 330 | 0      | 0.00  | ug/mL | 0.00%  |
| 67) Terphenyl-d14        | 27.78 | 244 | 215089 | 60.28 | ug/mL | 60.28% |

## Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

b7998.d BNACLP.M

Tue Jun 27 14:26:21 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7998.d

Vial: 19

Acq On : 23 Jun 95 4:45 am

Operator: SCOTTV

Sample : 26459.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

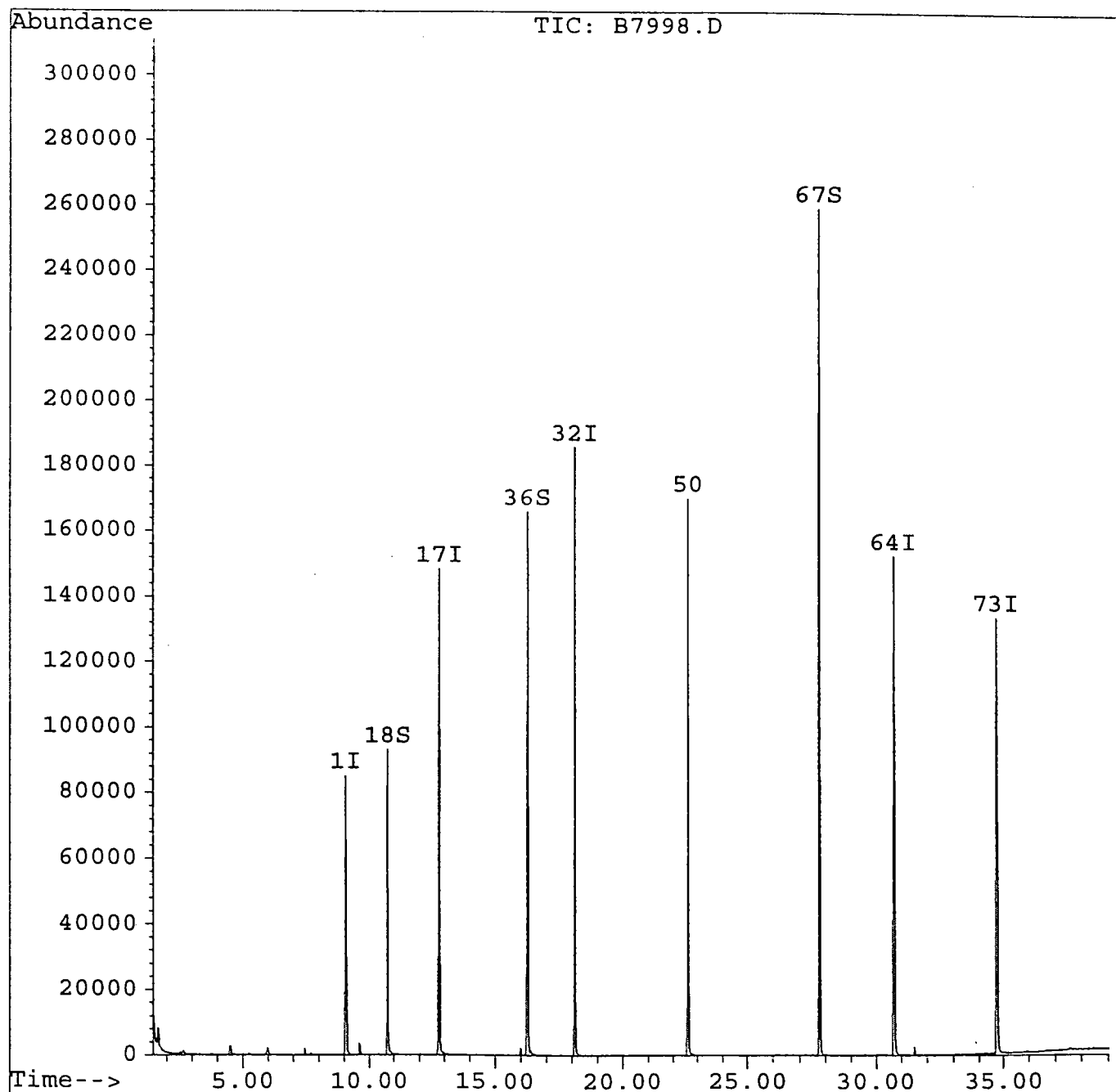
Quant Time: Jun 27 14:21 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

US ARMY

9526460B

MWI-2931777

276

Lab Name: EMSL ANALYTICAL

FMETL#

Site:

BLDG#

2000

NJDEP#

Matrix: (soil/water) WATER

Lab Sample ID: 9526460B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B8035.D

Level: (low/med)

Date Received: 6/14/95

% Moisture:

decanted: (Y/N):

N

Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/26/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH:

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               |      | U |
| 67-72-1   | Hexachloroethane              | 1               |      | U |
| 98-95-3   | Nitrobenzene                  | 2               |      | U |
| 78-59-1   | Isophorone                    | 1               |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               |      | U |
| 91-20-3   | Naphthalene                   | 2               |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2               |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               |      | U |
| 131-11-3  | Dimethylphthalate             | 1               |      | U |
| 208-96-8  | Acenaphthylene                | 5               |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               |      | U |
| 83-32-9   | Acenaphthene                  | 3               |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               |      | U |
| 84-66-2   | Diethylphthalate              | 1               |      | U |
| 86-73-7   | Fluorene                      | 3               |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               |      | U |
| 118-74-1  | Hexachlorobenzene             | 2               |      | U |
| 85-01-08  | Phenanthrene                  | 2               |      | U |
| 120-12-7  | Anthracene                    | 2               |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5               |      | U |
| 206-44-0  | Fluoranthene                  | 1               |      | U |
| 92-87-5   | Benzidine                     | 1               |      | U |

**9526460B**

Lab Name: EMSL ANALYTICAL

US ARMY

mw1-2931777 277

FMETL#

**Site:**

BLDG#

NJDEP#

Matrix: (soil/water) WATER

Lab Sample ID: 9526460B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B8035.D

**Level:** (low/med)

Date Received: 6/14/95

% Moisture: \_\_\_\_\_ decanted: (Y/N): N

Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/26/95

**Injection Volume:** 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

**Concentration Units:**

[illegible]



**SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET**  
**TENTATIVELY IDENTIFIED COMPOUNDS**

9526460B  
 MWI-2931777

278

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# \_\_\_\_\_ Site: \_\_\_\_\_ BLDG# 2000 NJDEP# \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: 9526460B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8035.D

Level: (low/med) \_\_\_\_\_ Date Received: 6/14/95

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 6/21/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/L

| CAS Number   | Compound Name                | RT   | Est. Conc | Q |
|--------------|------------------------------|------|-----------|---|
| 1. 3724-55-8 | 2-Pentanone, 4-hydroxy-4-met | 4.49 | 68        | J |
| 2.           |                              |      |           |   |
| 3.           |                              |      |           |   |
| 4.           |                              |      |           |   |
| 5.           |                              |      |           |   |
| 6.           |                              |      |           |   |
| 7.           |                              |      |           |   |
| 8.           |                              |      |           |   |
| 9.           |                              |      |           |   |
| 10.          |                              |      |           |   |
| 11.          |                              |      |           |   |
| 12.          |                              |      |           |   |
| 13.          |                              |      |           |   |
| 14.          |                              |      |           |   |
| 15.          |                              |      |           |   |
| 16.          |                              |      |           |   |
| 17.          |                              |      |           |   |
| 18.          |                              |      |           |   |
| 19.          |                              |      |           |   |
| 20.          |                              |      |           |   |
| 21.          |                              |      |           |   |
| 22.          |                              |      |           |   |
| 23.          |                              |      |           |   |
| 24.          |                              |      |           |   |
| 25.          |                              |      |           |   |
| 26.          |                              |      |           |   |
| 27.          |                              |      |           |   |
| 28.          |                              |      |           |   |
| 29.          |                              |      |           |   |
| 30.          |                              |      |           |   |

Data File : c:\hpchem\1\data2\b8035.d

Vial: 15

Acq On : 26 Jun 95 1:14 pm

Operator: SCOTTV

Sample : 26460.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 28 15:04 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.03  | 152  | 31927    | 40.00 | ug/mL | 0.00     |
| 17) Naphthalene-d8        | 12.75 | 136  | 123816   | 40.00 | ug/mL | 0.00     |
| 32) Acenaphthene-d10      | 18.06 | 164  | 83112    | 40.00 | ug/mL | 0.02     |
| 50) Phenanthrene-d10      | 22.57 | 188  | 128520   | 40.00 | ug/ml | 0.05     |
| 64) Chrysene-d12          | 30.66 | 240  | 125979   | 40.00 | ug/mL | 0.08     |
| 73) Perylene-d12          | 34.68 | 264  | 86508    | 40.00 | ug/mL | 0.08     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 0.00  | 112 | 0      | 0.00  | ug/mL | 0.00%     |
| 3) Phenol-d5                | 9.03  | 99  | 253    | 0.17  | ug/mL | 0.17%     |
| 18) Nitrobenzene-d5         | 10.69 | 82  | 60790  | 43.09 | ug/mL | 43.09%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172 | 132350 | 53.09 | ug/mL | 53.09%    |
| 54) 2,4,6-Tribromophenol    | 0.00  | 330 | 0      | 0.00  | ug/mL | 0.00%     |
| 67) Terphenyl-d14           | 27.73 | 244 | 225370 | 67.40 | ug/mL | 67.40%    |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

b8035.d BNACLP.M

Wed Jun 28 16:18:17 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b8035.d

Acq On : 26 Jun 95 1:14 pm

Sample : 26460.....

Misc :

Quant Time: Jun 28 15:04 1995

Vial: 15 280

Operator: SCOTTV

Converted from RTE d Inst : ABNA

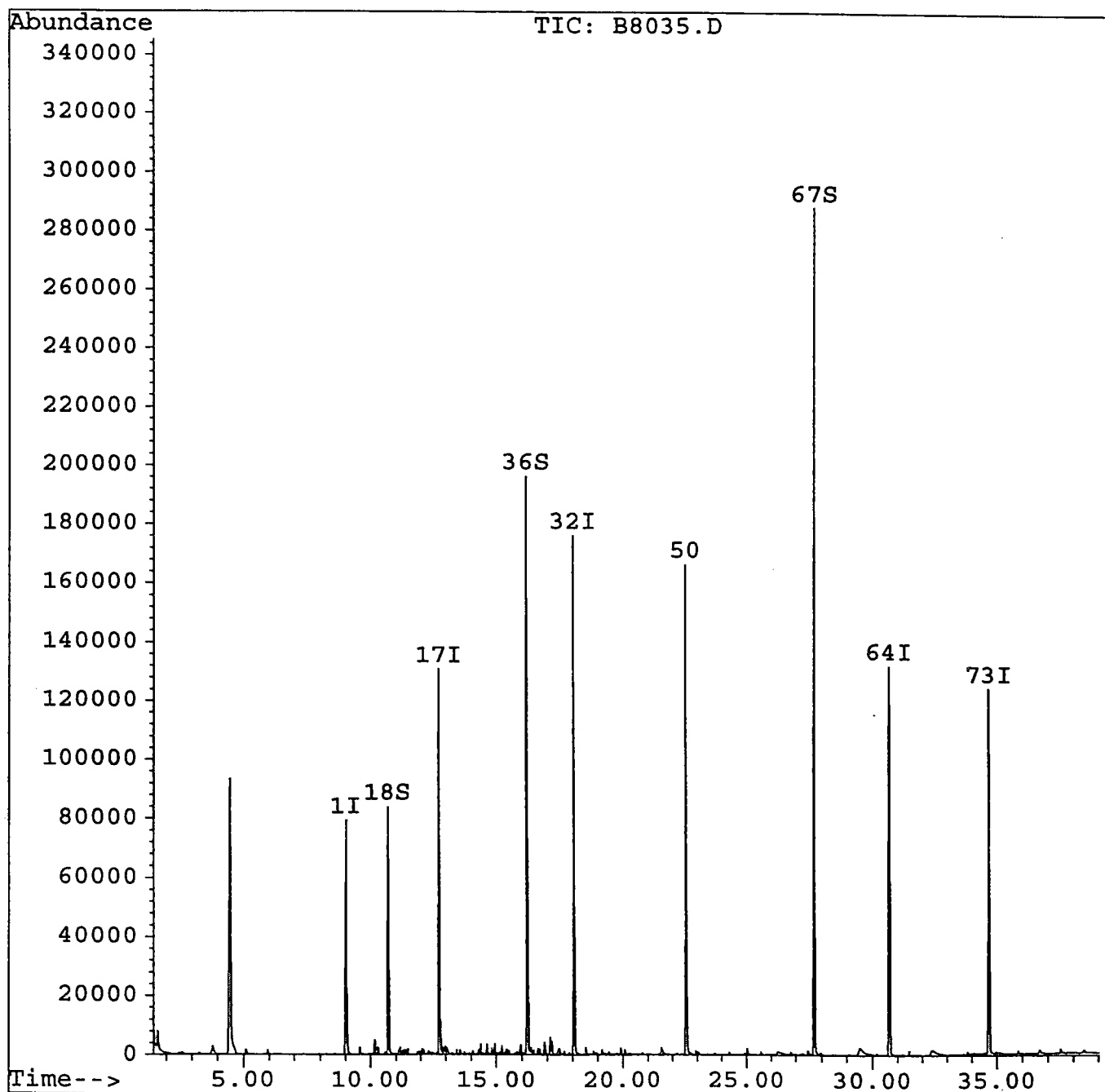
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b8035.d

Vial: 15

Acq On : 26 Jun 95 1:14 pm

Operator: SCOTTV

Sample : 26460.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

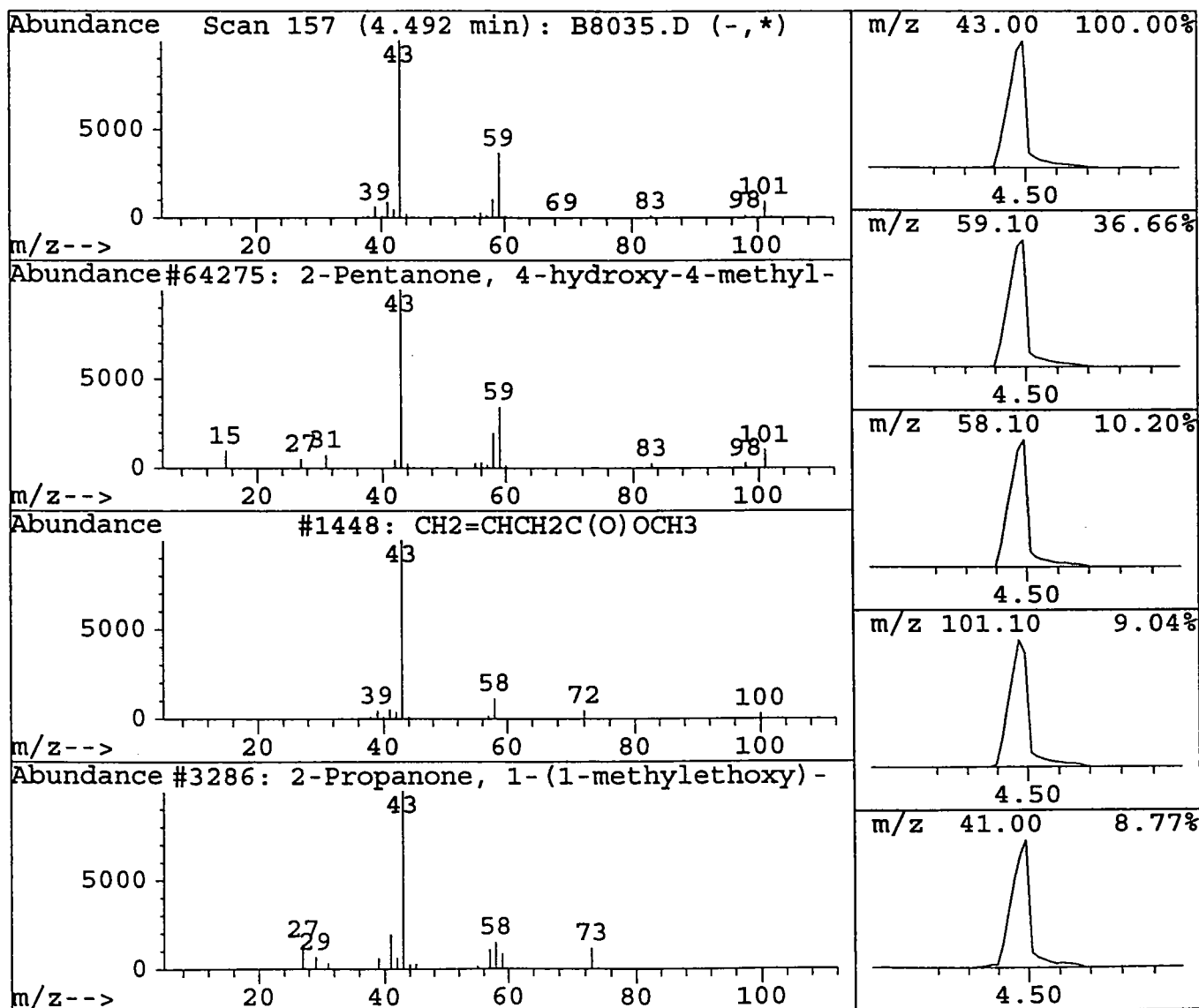
Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : C:\DATABASE\NBS75K.L

| R.T. | Conc        | Area   | Relative to ISTD       | R.T. |
|------|-------------|--------|------------------------|------|
| 4.49 | 68.29 ug/ml | 366330 | 1,4-Dichlorobenzene-d4 | 9.03 |

| Hit# of 20 | Tentative ID                                            | Ref#  | CAS#        | Qual |
|------------|---------------------------------------------------------|-------|-------------|------|
| 1          | 2-Pentanone, 4-hydroxy-4-methyl-                        | 64275 | 000123-42-2 | 50   |
| 2          | CH <sub>2</sub> =CHCH <sub>2</sub> C(O)OCH <sub>3</sub> | 1448  | 003724-55-8 | 25   |
| 3          | 2-Propanone, 1-(1-methylethoxy)-                        | 3286  | 042781-12-4 | 9    |
| 4          | 3,3-Dimethylbutylamine                                  | 1655  | 015673-00-4 | 7    |
| 5          | 2,3-Butanedione, monooxime                              | 1607  | 000057-71-6 | 7    |



## WATER SEMIVOLATILE SURROGATE RECOVERY

282

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | S1<br>(NBZ) # | S2<br>(FBP) # | S3<br>(TPH) # | # | # | # | # | # | TOT<br>OUT |
|----|------------|---------------|---------------|---------------|---|---|---|---|---|------------|
| 01 | SBLK02     | 29            | 23            | 38            |   |   |   |   |   |            |
| 02 | 9522265B   | 44            | 37            | 66            |   |   |   |   |   |            |
| 03 | 9522845B   | 60            | 49            | 73            |   |   |   |   |   |            |
| 04 | SBLK03     | 68            | 67            | 89            |   |   |   |   |   |            |
| 05 | 9523339B   | 73            | 69            | 60            |   |   |   |   |   |            |
| 06 | 9523341B   | 61            | 60            | 63            |   |   |   |   |   |            |
| 07 | 9523342B   | 74            | 70            | 68            |   |   |   |   |   |            |
| 08 | 9523343B   | 64            | 62            | 72            |   |   |   |   |   |            |
| 09 | 9523530B   | 64            | 61            | 65            |   |   |   |   |   |            |
| 10 | 9523531B   | 73            | 67            | 69            |   |   |   |   |   |            |
| 11 | 9523533B   | 40            | 39            | 64            |   |   |   |   |   |            |
| 12 | 9523534B   | 81            | 67            | 76            |   |   |   |   |   |            |
| 13 | 9523535B   | 70            | 69            | 68            |   |   |   |   |   |            |
| 14 | 9523536B   | 62            | 65            | 68            |   |   |   |   |   |            |
| 15 | SBLK04     | 62            | 61            | 68            |   |   |   |   |   |            |
| 16 | 9523789B   | 57            | 61            | 72            |   |   |   |   |   |            |
| 17 | 9523792B   | 60            | 64            | 70            |   |   |   |   |   |            |
| 18 | 9523787B   | 39            | 43            | 63            |   |   |   |   |   |            |
| 19 | SBLK05     | 57            | 55            | 63            |   |   |   |   |   |            |
| 20 | 22654MS    | 91            | 63            | 82            |   |   |   |   |   |            |
| 21 | 22654MSD   | 74            | 61            | 72            |   |   |   |   |   |            |
| 22 | 22659MS    | 75            | 67            | 80            |   |   |   |   |   |            |
| 23 | 22659MSD   | 78            | 65            | 78            |   |   |   |   |   |            |
| 24 |            |               |               |               |   |   |   |   |   |            |
| 25 |            |               |               |               |   |   |   |   |   |            |
| 26 |            |               |               |               |   |   |   |   |   |            |
| 27 |            |               |               |               |   |   |   |   |   |            |
| 28 |            |               |               |               |   |   |   |   |   |            |
| 29 |            |               |               |               |   |   |   |   |   |            |
| 30 |            |               |               |               |   |   |   |   |   |            |

S1 (NBZ) = Nitrobenzene-d5  
 S2 (FBP) = 2-Fluorobiphenyl  
 S3 (TPH) = Terphenyl-d14

QC LIMITS  
 (22-101)  
 (20-94)  
 (35-127)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 283

SBLK05

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: B7825.D Lab Sample ID: BLANK5

Instrument ID: ABNA Date Extracted: 5/23/95

Matrix: (soil/water) WATER Date Analyzed: 6/4/95

Level: (low/med) \_\_\_\_\_ Time Analyzed: 0435

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 22654MS    | 22654MS          | B7826.D        | 06/04/95         |
| 02 | 22654MSD   | 22654MSD         | B7827.D        | 06/04/95         |
| 03 | 22659MS    | 22659MS          | B7828.D        | 06/04/95         |
| 04 | 22659MSD   | 22659MSD         | B7829.D        | 06/04/95         |
| 05 |            |                  |                |                  |
| 06 |            |                  |                |                  |
| 07 |            |                  |                |                  |
| 08 |            |                  |                |                  |
| 09 |            |                  |                |                  |
| 10 |            |                  |                |                  |
| 11 |            |                  |                |                  |
| 12 |            |                  |                |                  |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

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Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | S1<br>(NBZ) # | S2<br>(FBP) # | S3<br>(TPH) # | # | # | # | # | # | TOT<br>OUT |
|----|------------|---------------|---------------|---------------|---|---|---|---|---|------------|
| 01 | SBLK01     | 36            | 41            | 61            |   |   |   |   |   |            |
| 02 | 9526814B   | 22            | 25            | 56            |   |   |   |   |   |            |
| 03 | 9526815B   | 44            | 21            | 52            |   |   |   |   |   |            |
| 04 | 9526816B   | 29            | 23            | 45            |   |   |   |   |   |            |
| 05 | 9526817B   | 23            | 25            | 62            |   |   |   |   |   |            |
| 06 | SBLK02     | 24            | 30            | 64            |   |   |   |   |   |            |
| 07 | 9526435B   | 34            | 51            | 57            |   |   |   |   |   |            |
| 08 | 9526436B   | 26            | 44            | 58            |   |   |   |   |   |            |
| 09 | 9526440B   | 24            | 25            | 70            |   |   |   |   |   |            |
| 10 | 9526441B   | 34            | 59            | 68            |   |   |   |   |   |            |
| 11 | 9526442B   | 25            | 39            | 60            |   |   |   |   |   |            |
| 12 | 9526443B   | 47            | 60            | 76            |   |   |   |   |   |            |
| 13 | 9526444B   | 28            | 40            | 66            |   |   |   |   |   |            |
| 14 | 9526445B   | 56            | 61            | 82            |   |   |   |   |   |            |
| 15 | 9526459B   | 47            | 51            | 60            |   |   |   |   |   |            |
| 16 |            |               |               |               |   |   |   |   |   |            |
| 17 |            |               |               |               |   |   |   |   |   |            |
| 18 |            |               |               |               |   |   |   |   |   |            |
| 19 |            |               |               |               |   |   |   |   |   |            |
| 20 |            |               |               |               |   |   |   |   |   |            |
| 21 |            |               |               |               |   |   |   |   |   |            |
| 22 |            |               |               |               |   |   |   |   |   |            |
| 23 |            |               |               |               |   |   |   |   |   |            |
| 24 |            |               |               |               |   |   |   |   |   |            |
| 25 |            |               |               |               |   |   |   |   |   |            |
| 26 |            |               |               |               |   |   |   |   |   |            |
| 27 |            |               |               |               |   |   |   |   |   |            |
| 28 |            |               |               |               |   |   |   |   |   |            |
| 29 |            |               |               |               |   |   |   |   |   |            |
| 30 |            |               |               |               |   |   |   |   |   |            |

S1 (NBZ) = Nitrobenzene-d5

S2 (FBP) = 2-Fluorobiphenyl

S3 (TPH) = Terphenyl-d14

## QC LIMITS

(22-101)

(20-94)

(35-127)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

|    | SAMPLE NO. | S1<br>(NBZ) # | S2<br>(FBP) # | S3<br>(TPH) # | # | # | # | # | # | TOT<br>OUT |
|----|------------|---------------|---------------|---------------|---|---|---|---|---|------------|
| 01 | SBLK01     | 73            | 75            | 75            |   |   |   |   |   |            |
| 02 | 9526397B   | 32            | 31            | 65            |   |   |   |   |   |            |
| 03 | 9526427B   | 55            | 54            | 67            |   |   |   |   |   |            |
| 04 | 9526428B   | 43            | 47            | 73            |   |   |   |   |   |            |
| 05 | 9526429B   | 71            | 80            | 75            |   |   |   |   |   |            |
| 06 | 9526430B   | 67            | 73            | 69            |   |   |   |   |   |            |
| 07 | 9526431B   | 58            | 64            | 56            |   |   |   |   |   |            |
| 08 | 9526432B   | 50            | 58            | 67            |   |   |   |   |   |            |
| 09 | 9526433B   | 47            | 55            | 68            |   |   |   |   |   |            |
| 10 | 9526434B   | 67            | 72            | 67            |   |   |   |   |   |            |
| 11 | 9526404B   | 67            | 72            | 62            |   |   |   |   |   |            |
| 12 | SBLK02     | 42            | 47            | 82            |   |   |   |   |   |            |
| 13 | 9526460B   | 43            | 53            | 67            |   |   |   |   |   |            |
| 14 | 9526461B   | 46            | 54            | 82            |   |   |   |   |   |            |
| 15 | 9526462B   | 43            | 54            | 68            |   |   |   |   |   |            |
| 16 | 9526605B   | 57            | 61            | 66            |   |   |   |   |   |            |
| 17 | 9526606B   | 50            | 53            | 69            |   |   |   |   |   |            |
| 18 | 9526607B   | 40            | 43            | 41            |   |   |   |   |   |            |
| 19 | 9526608B   | 24            | 36            | 47            |   |   |   |   |   |            |
| 20 | 9526609B   | 42            | 51            | 66            |   |   |   |   |   |            |
| 21 |            |               |               |               |   |   |   |   |   |            |
| 22 |            |               |               |               |   |   |   |   |   |            |
| 23 |            |               |               |               |   |   |   |   |   |            |
| 24 |            |               |               |               |   |   |   |   |   |            |
| 25 |            |               |               |               |   |   |   |   |   |            |
| 26 |            |               |               |               |   |   |   |   |   |            |
| 27 |            |               |               |               |   |   |   |   |   |            |
| 28 |            |               |               |               |   |   |   |   |   |            |
| 29 |            |               |               |               |   |   |   |   |   |            |
| 30 |            |               |               |               |   |   |   |   |   |            |

S1 (NBZ) = Nitrobenzene-d5

S2 (FBP) = 2-Fluorobiphenyl

S3 (TPH) = Terphenyl-d14

## QC LIMITS

(22-101)

(20-94)

(35-127)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out



1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 286

**SBLK05**

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: BLANK5

Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7825.D

Level: (low/med) \_\_\_\_\_ Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N): N Date Extracted: 5/23/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                    | (ug/L or ug/Kg) | <u>ug/L</u> | Q |
|-----------|-----------------------------|-----------------|-------------|---|
| 62-75-9   | N-nitrosodimethylamine      | 2               |             | U |
| 108-95-2  | Phenol                      | 2               |             | U |
| 111-44-4  | bis(2-Chloroethyl)ether     | 1               |             | U |
| 95-57-8   | 2-Chlorophenol              | 2               |             | U |
| 541-73-1  | 1,3-Dichlorobenzene         | 2               |             | U |
| 106-46-7  | 1,4-Dichlorobenzene         | 1               |             | U |
| 95-50-1   | 1,2-Dichlorobenzene         | 2               |             | U |
| 108-60-1  | bis(2-chloroisopropyl)ether | 5               |             | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine  | 2               |             | U |
| 67-72-1   | Hexachloroethane            | 1               |             | U |
| 98-95-3   | Nitrobenzene                | 2               |             | U |
| 78-59-1   | Isophorone                  | 1               |             | U |
| 88-75-5   | 2-Nitrophenol               | 3               |             | U |
| 105-67-9  | 2,4-Dimethylphenol          | 3               |             | U |
| 111-91-1  | bis(2-Chloroethoxy)methane  | 3               |             | U |
| 120-83-2  | 2,4-Dichlorophenol          | 3               |             | U |
| 120-82-1  | 1,2,4-Trichlorobenzene      | 2               |             | U |
| 91-20-3   | Naphthalene                 | 2               |             | U |
| 87-68-3   | Hexachlorobutadiene         | 2               |             | U |
| 59-50-7   | 4-Chloro-3-methylphenol     | 3               |             | U |
| 77-47-4   | Hexachlorocyclopentadiene   | 12              |             | U |
| 88-06-2   | 2,4,6-Trichlorophenol       | 3               |             | U |
| 91-58-7   | 2-Chloronaphthalene         | 1               |             | U |
| 131-11-3  | Dimethylphthalate           | 1               |             | U |
| 208-96-8  | Acenaphthylene              | 5               |             | U |
| 606-20-2  | 2,6-Dinitrotoluene          | 2               |             | U |
| 83-32-9   | Acenaphthene                | 3               |             | U |
| 51-28-5   | 2,4-Dinitrophenol           | 24              |             | U |
| 100-02-7  | 4-Nitrophenol               | 21              |             | U |
| 121-14-2  | 2,4-Dinitrotoluene          | 3               |             | U |
| 84-66-2   | Diethylphthalate            | 1               |             | U |
| 86-73-7   | Fluorene                    | 3               |             | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether  | 3               |             | U |

3/90

Data File : c:\hpchem\1\data2\b7825.d

Vial: 24

Acq On : 4 Jun 95 4:35 am

Operator: SCOTTV

Sample : BLANK..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 43303    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.92 | 136  | 177127   | 40.00 | ug/mL | 0.17     |
| 32) Acenaphthene-d10      | 18.27 | 164  | 122916   | 40.00 | ug/mL | 0.22     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 199698   | 40.00 | ug/mL | 0.26     |
| 64) Chrysene-d12          | 30.88 | 240  | 216974   | 40.00 | ug/mL | 0.30     |
| 73) Perylene-d12          | 34.91 | 264  | 174620   | 40.00 | ug/mL | 0.31     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.64  | 112 | 78262  | 63.90 | ug/mL | 63.90%    |
| 3) Phenol-d5                | 8.53  | 99  | 133633 | 65.92 | ug/mL | 65.92%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 114709 | 56.84 | ug/mL | 56.84%    |
| 36) 2-Fluorobiphenyl        | 16.40 | 172 | 202657 | 54.96 | ug/mL | 54.96%    |
| 54) 2,4,6-Tribromophenol    | 20.70 | 330 | 47874  | 88.77 | ug/mL | 88.77%    |
| 67) Terphenyl-d14           | 27.93 | 244 | 363044 | 63.04 | ug/mL | 63.04%    |

| Target Compounds | Qvalue |
|------------------|--------|
|------------------|--------|

-----  
(#) = qualifier out of range (m) = manual integration

b7825.d BNACLP.M

Mon Jun 05 16:42:11 1995

BNA

Page 2

# Quantitation Report

289

Data File : c:\hpchem\1\data2\b7825.d

Vial: 24

Acq On : 4 Jun 95 4:35 am

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst

ABNA

Misc :

BT Multiplr: 1.00

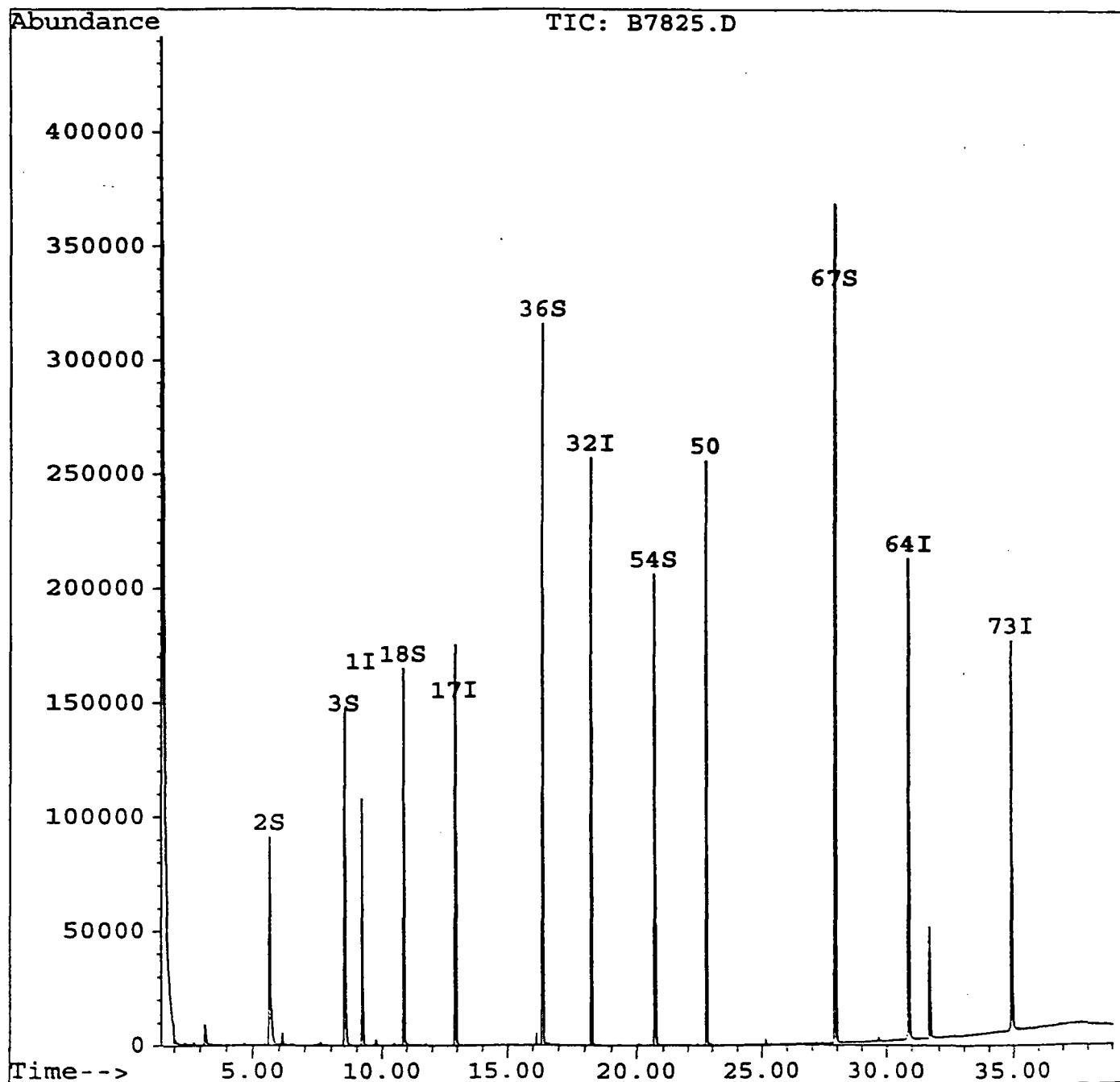
Quant Time: Jun 5 16:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Lab File ID: B7989.D Lab Sample ID: BLANK2  
Instrument ID: ABNA Date Extracted: 6/20/95  
Matrix: (soil/water) WATER Date Analyzed: 6/22/95  
Level: (low/med) \_\_\_\_\_ Time Analyzed: 2110

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 9526435B   | 9526435B         | B7990.D        | 06/22/95         |
| 02 | 9526436B   | 9526436B         | B7991.D        | 06/22/95         |
| 03 | 9526440B   | 9526440B         | B7992.D        | 06/22/95         |
| 04 | 9526441B   | 9526441B         | B7993.D        | 06/23/95         |
| 05 | 9526442B   | 9526442B         | B7994.D        | 06/23/95         |
| 06 | 9526443B   | 9526443B         | B7995.D        | 06/23/95         |
| 07 | 9526444B   | 9526444B         | B7996.D        | 06/23/95         |
| 08 | 9526445B   | 9526445B         | B7997.D        | 06/23/95         |
| 09 | 9526459B   | 9526459B         | B7998.D        | 06/23/95         |
| 10 |            |                  |                |                  |
| 11 |            |                  |                |                  |
| 12 |            |                  |                |                  |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

SBLK02

291

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: BLANK2Sample wt/vol: 1000.0 (g/mL ML)Lab File ID: B7989.D

Level: (low/med) \_\_\_\_\_

Date Received: 6/13/95% Moisture: \_\_\_\_\_ decanted: (Y/N): NDate Extracted: 6/20/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 6/22/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               |      | U |
| 67-72-1   | Hexachloroethane              | 1               |      | U |
| 98-95-3   | Nitrobenzene                  | 2               |      | U |
| 78-59-1   | Isophorone                    | 1               |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               |      | U |
| 91-20-3   | Naphthalene                   | 2               |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2               |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               |      | U |
| 131-11-3  | Dimethylphthalate             | 1               |      | U |
| 208-96-8  | Acenaphthylene                | 5               |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               |      | U |
| 83-32-9   | Acenaphthene                  | 3               |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               |      | U |
| 84-66-2   | Diethylphthalate              | 1               |      | U |
| 86-73-7   | Fluorene                      | 3               |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               |      | U |
| 118-74-1  | Hexachlorobenzene             | 2               |      | U |
| 85-01-08  | Phenanthrene                  | 2               |      | U |
| 120-12-7  | Anthracene                    | 2               |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5               |      | U |
| 206-44-0  | Fluoranthene                  | 1               |      | U |
| 92-87-5   | Benzidine                     | 1               |      | U |



Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
Matrix: (soil/water) WATER Lab Sample ID: BLANK2  
Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7989.D  
Level: (low/med) \_\_\_\_\_ Date Received: 6/13/95  
% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 6/20/95  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/22/95  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_\_  
Concentration Units:  
Number TICs found: 0 (ug/L or ug/Kg) ug/L

| CAS Number | Compound Name | RT | Est. Conc | Q |
|------------|---------------|----|-----------|---|
| 1.         | NONE FOUND    |    |           |   |
| 2.         |               |    |           |   |
| 3.         |               |    |           |   |
| 4.         |               |    |           |   |
| 5.         |               |    |           |   |
| 6.         |               |    |           |   |
| 7.         |               |    |           |   |
| 8.         |               |    |           |   |
| 9.         |               |    |           |   |
| 10.        |               |    |           |   |
| 11.        |               |    |           |   |
| 12.        |               |    |           |   |
| 13.        |               |    |           |   |
| 14.        |               |    |           |   |
| 15.        |               |    |           |   |
| 16.        |               |    |           |   |
| 17.        |               |    |           |   |
| 18.        |               |    |           |   |
| 19.        |               |    |           |   |
| 20.        |               |    |           |   |
| 21.        |               |    |           |   |
| 22.        |               |    |           |   |
| 23.        |               |    |           |   |
| 24.        |               |    |           |   |
| 25.        |               |    |           |   |
| 26.        |               |    |           |   |
| 27.        |               |    |           |   |
| 28.        |               |    |           |   |
| 29.        |               |    |           |   |
| 30.        |               |    |           |   |



Data File : c:\hpcchem\1\data2\b7989.d

Acq On : 22 Jun 95 9:10 pm

Sample : BLANK.....

Misc :

Quant Time: Jun 26 16:11 1995

Vial: 10 294

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

Converted from RTE d

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.05  | 152  | 34939    | 40.00 | ug/mL | 0.02     |
| 17) Naphthalene-d8        | 12.77 | 136  | 142327   | 40.00 | ug/mL | 0.02     |
| 32) Acenaphthene-d10      | 18.10 | 164  | 93901    | 40.00 | ug/mL | 0.05     |
| 50) Phenanthrene-d10      | 22.60 | 188  | 156914   | 40.00 | ug/mL | 0.09     |
| 64) Chrysene-d12          | 30.71 | 240  | 159983   | 40.00 | ug/mL | 0.13     |
| 73) Perylene-d12          | 34.73 | 264  | 80824    | 40.00 | ug/mL | 0.14     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units | %Recovery |
|-----------------------------|-------|------|----------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.53  | 112  | 27662    | 27.99 | ug/mL | 27.99%    |
| 3) Phenol-d5                | 8.46  | 99   | 48292    | 29.53 | ug/mL | 29.53%    |
| 18) Nitrobenzene-d5         | 10.73 | 82   | 38652    | 23.84 | ug/mL | 23.84%    |
| 36) 2-Fluorobiphenyl        | 16.23 | 172  | 83369    | 29.60 | ug/mL | 29.60%    |
| 54) 2,4,6-Tribromophenol    | 20.54 | 330  | 21801    | 51.45 | ug/mL | 51.45%    |
| 67) Terphenyl-d14           | 27.78 | 244  | 273506   | 64.41 | ug/mL | 64.41%    |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

b7989.d BNACLP.M

Mon Jun 26 17:05:29 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7989.d

Vial: 10 295

Acq On : 22 Jun 95 9:10 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

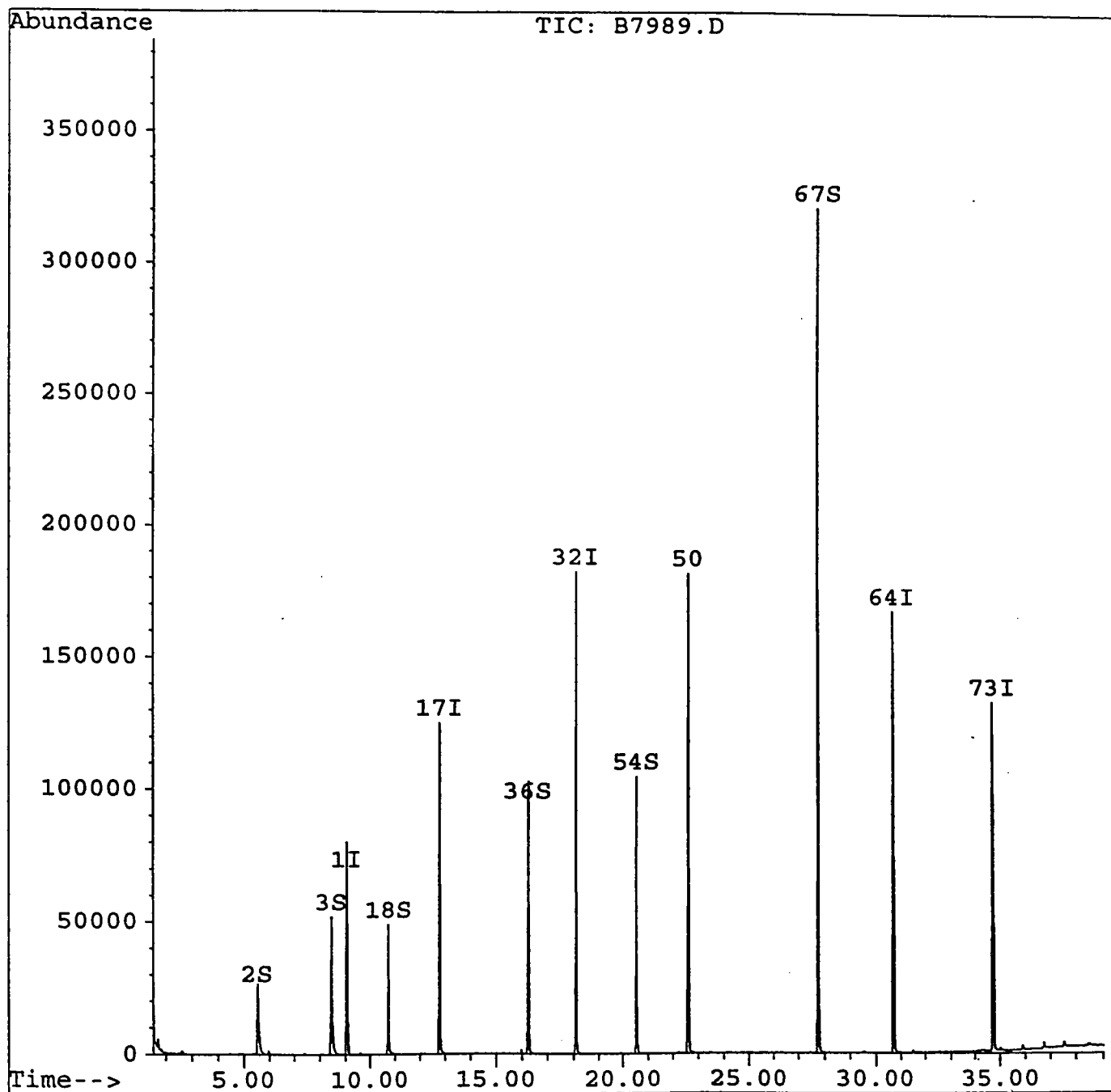
Quant Time: Jun 26 16:11 1995

Method : c:\HPCHEM\1\METHODS\BNACL.P.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7989.d

Vial: 10 296

Acq On : 22 Jun 95 9:10 pm

Operator: SCOTTV

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Library : NBS75K.L

No Library Search Compounds Detected

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID: B8034.DLab Sample ID: BLANK2Instrument ID: ABNADate Extracted: 6/21/95Matrix: (soil/water) WATERDate Analyzed: 6/26/95

Level: (low/med) \_\_\_\_\_

Time Analyzed: 1223

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

|    | SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|----|------------|------------------|----------------|------------------|
| 01 | 9526460B   | 9526460B         | B8035.D        | 06/26/95         |
| 02 | 9526461B   | 9526461B         | B8036.D        | 06/26/95         |
| 03 | 9526462B   | 9526462B         | B8037.D        | 06/26/95         |
| 04 | 9526605B   | 9526605B         | B8038.D        | 06/26/95         |
| 05 | 9526606B   | 9526606B         | B8039.D        | 06/26/95         |
| 06 | 9526607B   | 9526607B         | B8040.D        | 06/26/95         |
| 07 | 9526608B   | 9526608B         | B8041.D        | 06/26/95         |
| 08 | 9526609B   | 9526609B         | B8042.D        | 06/26/95         |
| 09 |            |                  |                |                  |
| 10 |            |                  |                |                  |
| 11 |            |                  |                |                  |
| 12 |            |                  |                |                  |
| 13 |            |                  |                |                  |
| 14 |            |                  |                |                  |
| 15 |            |                  |                |                  |
| 16 |            |                  |                |                  |
| 17 |            |                  |                |                  |
| 18 |            |                  |                |                  |
| 19 |            |                  |                |                  |
| 20 |            |                  |                |                  |
| 21 |            |                  |                |                  |
| 22 |            |                  |                |                  |
| 23 |            |                  |                |                  |
| 24 |            |                  |                |                  |
| 25 |            |                  |                |                  |
| 26 |            |                  |                |                  |
| 27 |            |                  |                |                  |
| 28 |            |                  |                |                  |
| 29 |            |                  |                |                  |
| 30 |            |                  |                |                  |

COMMENTS:

Site: \_\_\_\_\_

Matrix: (soil/water) WATERLab Sample ID: BLANK2Sample wt/vol: 1000.0 (g/mL ML)Lab File ID: B8034.D

Level: (low/med) \_\_\_\_\_

Date Received: 6/14/95% Moisture: \_\_\_\_\_ decanted: (Y/N): NDate Extracted: 6/21/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 6/26/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Concentration Units:

| CAS No.   | Compound                      | (ug/L or ug/Kg) | ug/L | Q |
|-----------|-------------------------------|-----------------|------|---|
| 62-75-9   | N-nitrosodimethylamine        | 2               |      | U |
| 111-44-4  | bis(2-Chloroethyl)ether       | 1               |      | U |
| 541-73-1  | 1,3-Dichlorobenzene           | 2               |      | U |
| 106-46-7  | 1,4-Dichlorobenzene           | 1               |      | U |
| 95-50-1   | 1,2-Dichlorobenzene           | 2               |      | U |
| 108-60-1  | bis(2-chloroisopropyl)ether   | 5               |      | U |
| 621-64-7  | N-Nitroso-Di-n-propylamine    | 2               |      | U |
| 67-72-1   | Hexachloroethane              | 1               |      | U |
| 98-95-3   | Nitrobenzene                  | 2               |      | U |
| 78-59-1   | Isophorone                    | 1               |      | U |
| 111-91-1  | bis(2-Chloroethoxy)methane    | 3               |      | U |
| 120-82-1  | 1,2,4-Trichlorobenzene        | 2               |      | U |
| 91-20-3   | Naphthalene                   | 2               |      | U |
| 87-68-3   | Hexachlorobutadiene           | 2               |      | U |
| 77-47-4   | Hexachlorocyclopentadiene     | 12              |      | U |
| 91-58-7   | 2-Chloronaphthalene           | 1               |      | U |
| 131-11-3  | Dimethylphthalate             | 1               |      | U |
| 208-96-8  | Acenaphthylene                | 5               |      | U |
| 606-20-2  | 2,6-Dinitrotoluene            | 2               |      | U |
| 83-32-9   | Acenaphthene                  | 3               |      | U |
| 121-14-2  | 2,4-Dinitrotoluene            | 3               |      | U |
| 84-66-2   | Diethylphthalate              | 1               |      | U |
| 86-73-7   | Fluorene                      | 3               |      | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether    | 3               |      | U |
| 86-30-6   | n-Nitrosodiphenylamine        | 6               |      | U |
| 122-66-7  | 1,2-Diphenylhydrazine(as azo) | 6               |      | U |
| 101-55-3  | 4-Bromophenyl-phenylether     | 2               |      | U |
| 118-74-1  | Hexachlorobenzene             | 2               |      | U |
| 85-01-08  | Phenanthrene                  | 2               |      | U |
| 120-12-7  | Anthracene                    | 2               |      | U |
| 84-74-2   | Di-n-butylphthalate           | 5               |      | U |
| 206-44-0  | Fluoranthene                  | 1               |      | U |
| 92-87-5   | Benzidine                     | 1               |      | U |



Data File : c:\hpchem\1\data2\b8034.d

Vial: 14

Acq On : 26 Jun 95 12:23 pm

Operator: SCOTT 301

Sample : BLANK.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 28 15:03 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.04  | 152  | 34799    | 40.00 | ug/mL | 0.00     |
| 17) Naphthalene-d8        | 12.75 | 136  | 143633   | 40.00 | ug/mL | 0.00     |
| 32) Acenaphthene-d10      | 18.06 | 164  | 96973    | 40.00 | ug/mL | 0.02     |
| 50) Phenanthrene-d10      | 22.57 | 188  | 164949   | 40.00 | ug/mL | 0.05     |
| 64) Chrysene-d12          | 30.67 | 240  | 155418   | 40.00 | ug/mL | 0.10     |
| 73) Perylene-d12          | 34.68 | 264  | 60234    | 40.00 | ug/mL | 0.08     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 0.00  | 112 | 0      | 0.00  | ug/mL | 0.00%     |
| 3) Phenol-d5                | 9.04  | 99  | 304    | 0.19  | ug/mL | 0.19%     |
| 18) Nitrobenzene-d5         | 10.69 | 82  | 67982  | 41.54 | ug/mL | 41.54%    |
| 36) 2-Fluorobiphenyl        | 16.22 | 172 | 135289 | 46.51 | ug/mL | 46.51%    |
| 54) 2,4,6-Tribromophenol    | 0.00  | 330 | 0      | 0.00  | ug/mL | 0.00%     |
| 67) Terphenyl-d14           | 27.73 | 244 | 338841 | 82.14 | ug/mL | 82.14%    |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

b8034.d BNACLP.M

Wed Jun 28 16:17:00 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b8034.d

Acq On : 26 Jun 95 12:23 pm

Sample : BLANK.....

Misc :

Quant Time: Jun 28 15:03 1995

Vial: 14 302

Operator: SCOTTV

Converted from RTE d Inst : ABNA

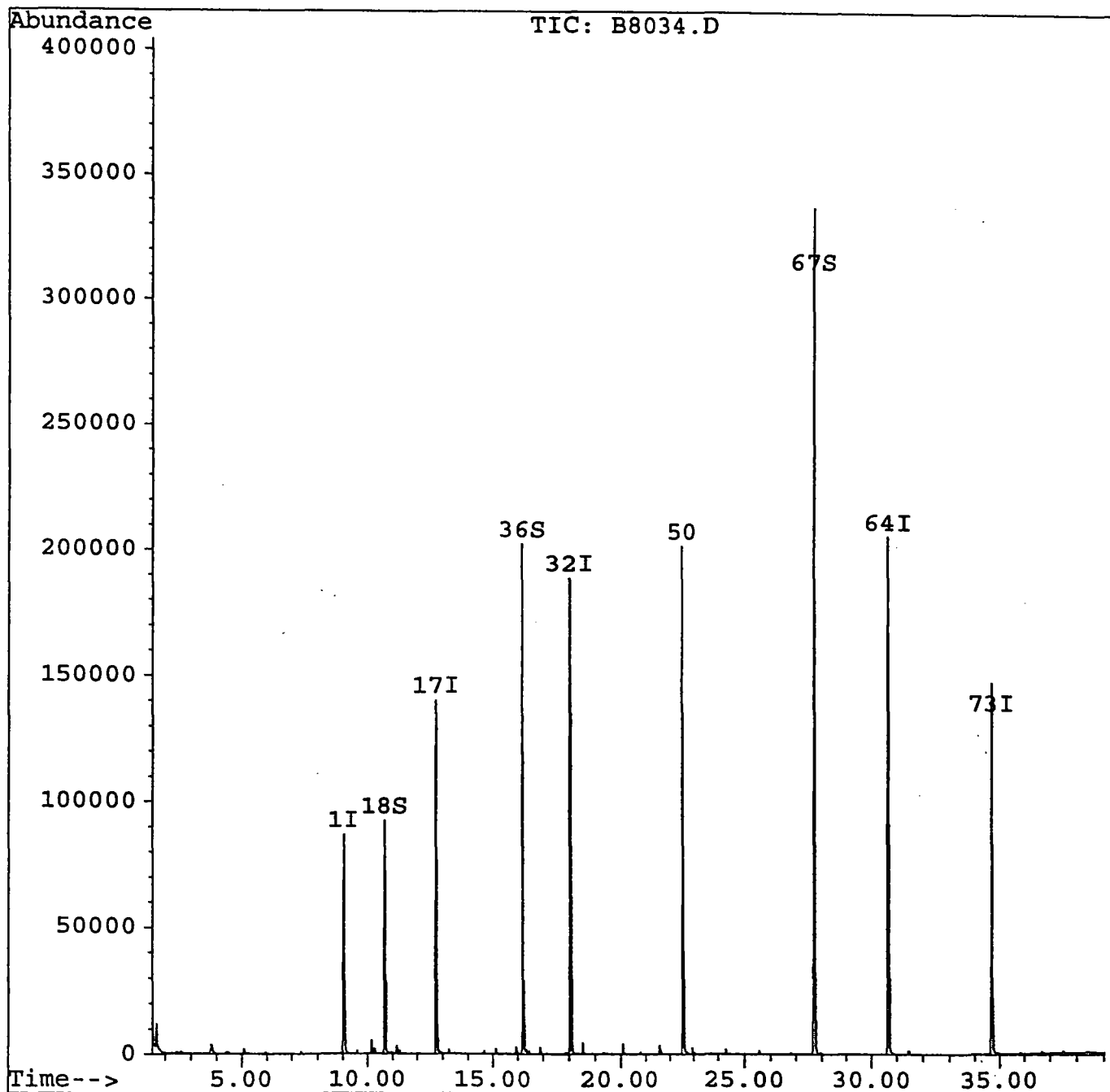
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Thu Jun 15 14:15:34 1995

Response via : Multiple Level Calibration





Data File : c:\hpchem\1\data2\b8034.d Vial: 14  
Acq On : 26 Jun 95 12:23 pm Operator: SCOTTV  
Sample : BLANK..... Converted from RTE d Inst : ABNA  
Misc : BT Multiplr: 1.00  
  
Method : c:\HPCHEM\1\METHODS\BNACLP.M  
Title : CLP BNA Calibration  
Library : NBS75K.L

No Library Search Compounds Detected

Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 10:06:36 1995  
 Response via : Initial Calibration

Non-Spiked Sample: B7742.D

Spike  
Sample

Spike  
Duplicate Sample

File ID : B7826.D | B7827.D  
 Sample : 22654MS..... Converted from RTE data file >B7826::D5

| Compound             | Sample<br>Conc | Spike<br>Added | Spike<br>Res | Dup<br>Res | Spike<br>%Rec | Dup<br>%Rec | RPD | QC Limits<br>RPD % Rec |
|----------------------|----------------|----------------|--------------|------------|---------------|-------------|-----|------------------------|
| N-nitrosodimethylami | 0.0            | 100            | 108          | 91         | 108           | 91          | 17  | 100   1-300            |
| Phenol               | 0.0            | 100            | 69           | 64         | 69            | 64          | 7   | 23   5-112             |
| bis(2-Chloroethyl)et | 0.0            | 100            | 77           | 68         | 77            | 68          | 13  | 55   12-158            |
| 2-Chlorophenol       | 0.0            | 100            | 76           | 67         | 76            | 67          | 13  | 29   23-134            |
| 1,3-Dichlorobenzene  | 0.0            | 100            | 57           | 50         | 57            | 50          | 14  | 42   1-172             |
| 1,4-Dichlorobenzene  | 0.0            | 100            | 58           | 51         | 58            | 51          | 13  | 32   20-124            |
| 1,2-Dichlorobenzene  | 0.0            | 100            | 62           | 53         | 62            | 53          | 15  | 31   32-129            |
| bis(2-chloroisopropy | 0.0            | 100            | 134          | 118        | 134           | 118         | 13  | 46   36-166            |
| N-Nitroso-Di-n-propy | 0.0            | 100            | 78           | 66         | 78            | 66          | 16  | 55   1-230             |
| Hexachloroethane     | 0.0            | 100            | 50           | 42         | 50            | 42          | 18  | 25   40-113            |
| Nitrobenzene         | 0.2            | 100            | 84           | 71         | 83            | 71          | 17  | 39   35-180            |
| Isophorone           | 0.0            | 100            | 70           | 59         | 70            | 59          | 17  | 63   21-196            |
| 2-Nitrophenol        | 0.0            | 100            | 79           | 65         | 79            | 65          | 19  | 35   29-182            |
| 2,4-Dimethylphenol   | 0.0            | 100            | 43           | 40         | 43            | 40          | 7   | 26   32-119            |
| bis(2-Chloroethoxy)m | 0.0            | 100            | 58           | 49         | 58            | 49          | 18  | 35   33-184            |
| 2,4-Dichlorophenol   | 0.0            | 100            | 79           | 67         | 79            | 67          | 16  | 26   39-135            |
| 1,2,4-Trichlorobenze | 0.0            | 100            | 67           | 59         | 67            | 59          | 13  | 28   44-142            |
| Naphthalene          | 0.0            | 100            | 71           | 61         | 71            | 61          | 15  | 30   21-133            |
| Hexachlorobutadiene  | 0.0            | 100            | 55           | 49         | 55            | 49          | 11  | 26   24-116            |
| 4-Chloro-3-methylphe | 0.0            | 100            | 73           | 63         | 73            | 63          | 15  | 37   22-147            |
| 2-Chloronaphthalene  | 0.0            | 100            | 77           | 68         | 77            | 68          | 12  | 13   60-118            |
| 2,4,6-Trichloropheno | 0.0            | 100            | 57           | 52         | 57            | 52          | 8   | 32   37-144            |
| Dimethylphthalate    | 0.0            | 100            | 44           | 35         | 44            | 35          | 22  | 23   1-112             |
| Acenaphthylene       | 0.0            | 100            | 56           | 50         | 56            | 50          | 12  | 40   33-145            |
| 2,6-Dinitrotoluene   | 0.0            | 100            | 73           | 71         | 73            | 71          | 3   | 30   50-158            |
| Acenaphthene         | 0.0            | 100            | 77           | 71         | 77            | 71          | 8   | 28   47-145            |
| 2,4-Dinitrophenol    | 0.0            | 100            | 68           | 65         | 68            | 65          | 4   | 50   1-191             |
| 4-Nitrophenol        | 0.5            | 100            | 76           | 70         | 76            | 70          | 8   | 47   1-132             |
| 2,4-Dinitrotoluene   | 0.0            | 100            | 75           | 68         | 75            | 68          | 9   | 22   39-139            |
| Diethylphthalate     | 0.1            | 100            | 47           | 41         | 47            | 41          | 15  | 27   1-114             |
| Fluorene             | 0.9            | 100            | 75           | 69         | 74            | 68          | 9   | 21   59-121            |
| 4-Chlorophenyl-pheny | 0.0            | 100            | 77           | 69         | 77            | 69          | 11  | 33   25-158            |
| 4,6-Dinitro-2-methyl | 0.0            | 100            | 76           | 70         | 76            | 70          | 8   | 93   1-181             |
| 4-Bromophenyl-phenyl | 0.0            | 100            | 78           | 72         | 78            | 72          | 8   | 23   53-127            |
| Hexachlorobenzene    | 0.0            | 100            | 90           | 82         | 90            | 82          | 10  | 25   1-152             |
| Pentachlorophenol    | 0.0            | 100            | 100          | 93         | 100           | 93          | 7   | 49   14-176            |
| Phenanthrene         | 0.0            | 100            | 81           | 75         | 81            | 75          | 9   | 21   54-120            |
| Anthracene           | 0.0            | 100            | 96           | 83         | 96            | 83          | 14  | 32   52-115            |
| Di-n-butylphthalate  | 0.2            | 100            | 77           | 71         | 77            | 71          | 8   | 17   1-118             |
| Fluoranthene         | 0.0            | 100            | 95           | 88         | 95            | 88          | 8   | 33   26-137            |
| Pyrene               | 0.0            | 100            | 68           | 65         | 68            | 65          | 5   | 25   52-115            |
| Butylbenzylphthalate | 0.3            | 100            | 65           | 58         | 64            | 57          | 12  | 23   1-152             |
| Benzo[a]anthracene   | 0.1            | 100            | 65           | 58         | 65            | 58          | 11  | 28   33-143            |
| 3,3'-Dichlorobenzidi | 0.0            | 100            | 81           | 74         | 81            | 74          | 9   | 71   1-262             |

|                      |     |     |     |     |     |     |    |    |        |
|----------------------|-----|-----|-----|-----|-----|-----|----|----|--------|
| Chrysene             | 0.1 | 100 | 118 | 106 | 118 | 106 | 10 | 48 | 17-168 |
| bis(2-Ethylhexyl)pht | 0.4 | 100 | 71  | 63  | 71  | 62  | 13 | 41 | 8-158  |
| Di-n-octylphthalate  | 0.0 | 100 | 67  | 59  | 67  | 59  | 13 | 31 | 4-146  |
| Benzo[b]fluoranthene | 0.0 | 100 | 53  | 48  | 53  | 48  | 11 | 39 | 24-159 |
| Benzo[k]fluoranthene | 0.1 | 100 | 108 | 99  | 108 | 99  | 8  | 32 | 11-162 |
| Benzo[a]pyrene       | 0.1 | 100 | 101 | 90  | 101 | 90  | 12 | 39 | 17-163 |
| Indeno[1,2,3-cd]pyre | 0.0 | 100 | 42  | 38  | 42  | 38  | 10 | 45 | 1-171  |
| Dibenz[a,h]anthracen | 0.0 | 100 | 47  | 50  | 47  | 50  | 5  | 70 | 1-227  |
| Benzo[g,h,i]perylene | 0.0 | 100 | 54  | 48  | 54  | 48  | 11 | 59 | 1-219  |

BNACLP.M

Tue Jun 13 13:08:56 1995

BNA

## Quantitation Report

306

Data File : c:\hpchem\1\data2\b7826.d

Acq On : 4 Jun 95 5:25 am

Sample : 22654MS..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev (Min) |
|---------------------------|-------|------|----------|-------|-------|-----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 33780    | 40.00 | ug/mL | 0.17      |
| 17) Naphthalene-d8        | 12.94 | 136  | 129967   | 40.00 | ug/mL | 0.19      |
| 32) Acenaphthene-d10      | 18.26 | 164  | 93254    | 40.00 | ug/mL | 0.21      |
| 50) Phenanthrene-d10      | 22.77 | 188  | 155903   | 40.00 | ug/mL | 0.25      |
| 64) Chrysene-d12          | 30.91 | 240  | 148922   | 40.00 | ug/mL | 0.33      |
| 73) Perylene-d12          | 34.91 | 264  | 65345    | 40.00 | ug/mL | 0.31      |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units | %Recovery |
|-----------------------------|-------|------|----------|--------|-------|-----------|
| 2) 2-Fluorophenol           | 5.66  | 112  | 86730    | 90.77  | ug/mL | 90.77%    |
| 3) Phenol-d5                | 8.57  | 99   | 147096   | 93.02  | ug/mL | 93.02%    |
| 18) Nitrobenzene-d5         | 10.90 | 82   | 134034   | 90.52  | ug/mL | 90.52%    |
| 36) 2-Fluorobiphenyl        | 16.41 | 172  | 175522   | 62.75  | ug/mL | 62.75%    |
| 54) 2,4,6-Tribromophenol    | 20.71 | 330  | 46665    | 110.83 | ug/mL | 110.83%   |
| 67) Terphenyl-d14           | 27.94 | 244  | 322279   | 81.53  | ug/mL | 81.53%    |

| Target Compounds                | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|---------------------------------|-------|------|----------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 2.43  | 74   | 52801    | 108.13 | ug/mlm | 0      |
| 5) Pyridine                     | 1.58  | 79   | 3052     | 8.44   | ug/ml  | 100    |
| 6) Phenol                       | 8.61  | 94   | 97169    | 68.99  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.61 | 93   | 132335   | 77.35  | ug/mL  | 96     |
| 8) 2-Chlorophenol               | 8.63  | 128  | 81945    | 76.45  | ug/mL  | 90     |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146  | 66629    | 56.96  | ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146  | 69858    | 57.89  | ug/mL  | 100    |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146  | 70561    | 61.55  | ug/mL  | 98     |
| 13) bis(2-chloroisopropyl) ethe | 10.30 | 45   | 211229   | 133.86 | ug/mL# | 65     |
| 15) N-Nitroso-Di-n-propylamine  | 10.69 | 70   | 88152    | 77.56  | ug/mL  | 95     |
| 16) Hexachloroethane            | 10.61 | 117  | 31123    | 49.97  | ug/mL  | 89     |
| 19) Nitrobenzene                | 10.96 | 77   | 115194   | 83.63  | ug/mL# | 85     |
| 20) Isophorone                  | 11.75 | 82   | 203312   | 70.04  | ug/mL  | 98     |
| 21) 2-Nitrophenol               | 11.88 | 139  | 53977    | 78.97  | ug/mL# | 85     |
| 22) 2,4-Dimethylphenol          | 12.33 | 107  | 55100    | 43.09  | ug/mLm | 1      |
| 23) bis(2-Chloroethoxy) methane | 8.72  | 93   | 86556    | 58.41  | ug/mL  | 98     |
| 24) 2,4-Dichlorophenol          | 12.67 | 162  | 76577    | 79.05  | ug/mL  | 98     |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180  | 68935    | 66.95  | ug/mL  | 98     |
| 26) Naphthalene                 | 13.00 | 128  | 225507   | 70.91  | ug/mL# | 90     |
| 27) 4-Chloroaniline             | 13.00 | 127  | 28186    | 18.73  | ug/mL# | 1      |
| 28) Hexachlorobutadiene         | 13.52 | 225  | 33083    | 55.03  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107  | 91543    | 73.39  | ug/mL  | 95     |
| 30) 2-Chloronaphthalene         | 16.60 | 162  | 173185   | 76.58  | ug/mlm | 95     |
| 31) 2-Methylnaphthalene         | 15.04 | 142  | 68690    | 26.91  | ug/mL# | 18     |
| 34) 2,4,6-Trichlorophenol       | 16.12 | 196  | 54836    | 56.62  | ug/mL  | 98     |
| 35) 2,4,5-Trichlorophenol       | 16.12 | 196  | 54836    | 72.58  | ug/mL  | 98     |
| 37) 2-Nitroaniline              | 17.93 | 65   | 3806     | 2.97   | ug/mL# | 100    |
| 38) Dimethylphthalate           | 17.83 | 163  | 132688   | 43.80  | ug/mL  | 100    |

(#)=qualifier out of range (m)=manual integration

b7826.d BNACLP.M

Tue Jun 13 13:09:53 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7826.d

Vial: 25

Acq On : 4 Jun 95 5:25 am

Operator: SCOTTV

Sample : 22654MS..... Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:06 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 221369   | 55.71  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 52674    | 72.83  | ug/mL  | 98     |
| 42) Acenaphthene               | 18.37 | 153  | 184037   | 77.01  | ug/mL  | 98     |
| 43) 2,4-Dinitrophenol          | 18.68 | 184  | 27438    | 68.35  | ug/mL# | 82     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 29448    | 76.25  | ug/mL  | 93     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 203714   | 74.87  | ug/mL# | 33     |
| 47) Diethylphthalate           | 20.07 | 149  | 159610   | 47.45  | ug/mL  | 100    |
| 48) Fluorene                   | 19.97 | 166  | 219880   | 74.92  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 106703   | 76.76  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2333     | 3.60   | ug/mL# | 26     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 38799    | 75.54  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.57 | 169  | 120798   | 60.97  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 341255   | 72.29  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 63010    | 78.44  | ug/mL  | 93     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 75708    | 90.48  | ug/mL# | 81     |
| 58) Pentachlorophenol          | 22.31 | 266  | 53483    | 99.80  | ug/mL  | 98     |
| 59) Phenanthrene               | 22.87 | 178  | 347261   | 81.41  | ug/mL  | 99     |
| 60) Anthracene                 | 22.87 | 178  | 375780   | 95.56  | ug/mL  | 98     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 485216   | 77.50  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.13 | 202  | 383198   | 95.00  | ug/mL  | 95     |
| 65) Benzidine                  | 27.15 | 184  | 31355    | 19.25  | ug/ml  | 100    |
| 66) Pyrene                     | 27.13 | 202  | 382718   | 68.46  | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 231108   | 64.56  | ug/mL  | 98     |
| 69) Benzo[a]anthracene         | 30.89 | 228  | 364541   | 64.61  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.03 | 252  | 116175   | 80.76  | ug/mL  | 99     |
| 71) Chrysene                   | 30.89 | 228  | 369164   | 117.64 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 362642   | 71.41  | ug/mL  | 98     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 561704   | 67.50  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.94 | 252  | 214943   | 53.34  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 33.94 | 252  | 210450   | 108.25 | ug/mL  | 91     |
| 77) Benzo[a]pyrene             | 34.04 | 252  | 202935   | 101.27 | ug/mL  | 97     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.41 | 276  | 31241    | 42.27  | ug/mL# | 76     |
| 79) Dibenz[a,h]anthracene      | 37.53 | 278  | 33601    | 47.21  | ug/mL# | 91     |
| 80) Benzo[g,h,i]perylene       | 37.41 | 276  | 31328    | 53.91  | ug/mL# | 91     |

(#) = qualifier out of range (m) = manual integration

Data File : c:\hpchem\1\data2\b7826.d

Acq On : 4 Jun 95 5:25 am

Sample : 22654MS.....

Misc :

Quant Time: Jun 13 13:06 1995

Vial: 25

Operator: SCOTTV

Converted from RTE d Inst : ABNA

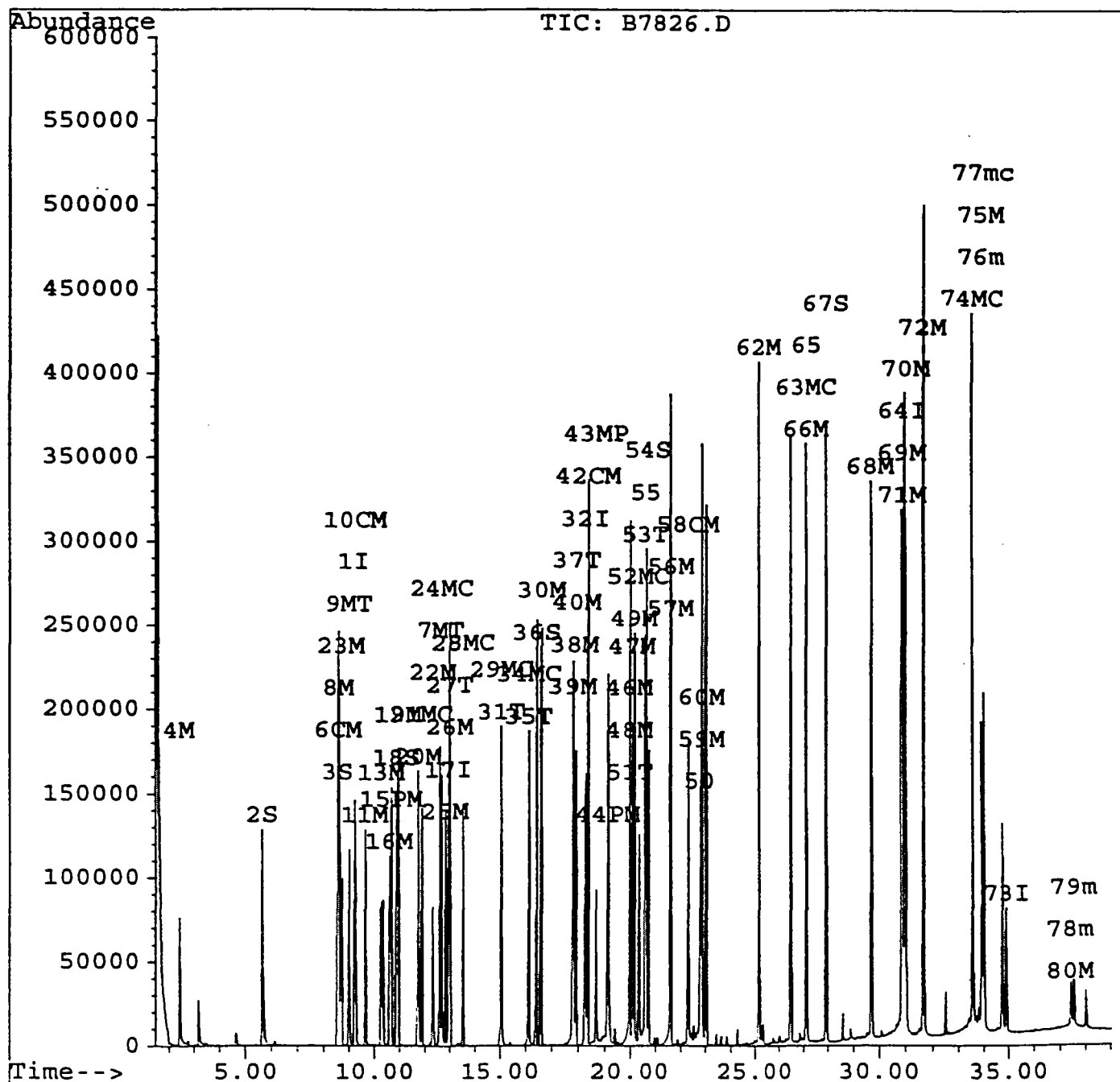
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7827.d

Vial: 26

Acq On : 4 Jun 95 6:15 am

Operator: SCOTTV

Sample : 22654MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 35303    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 144937   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 99611    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 164759   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.91 | 240  | 152801   | 40.00 | ug/mL | 0.33     |
| 73) Perylene-d12          | 34.91 | 264  | 66464    | 40.00 | ug/mL | 0.31     |

## System Monitoring Compounds

%Recovery

|                          |       |     |        |        |       |         |
|--------------------------|-------|-----|--------|--------|-------|---------|
| 2) 2-Fluorophenol        | 5.66  | 112 | 82094  | 82.21  | ug/mL | 82.21%  |
| 3) Phenol-d5             | 8.57  | 99  | 140345 | 84.92  | ug/mL | 84.92%  |
| 18) Nitrobenzene-d5      | 10.90 | 82  | 122579 | 74.23  | ug/mL | 74.23%  |
| 36) 2-Fluorobiphenyl     | 16.41 | 172 | 181198 | 60.64  | ug/mL | 60.64%  |
| 54) 2,4,6-Tribromophenol | 20.71 | 330 | 47406  | 106.54 | ug/mL | 106.54% |
| 67) Terphenyl-d14        | 27.94 | 244 | 291235 | 71.81  | ug/mL | 71.81%  |

## Target Compounds

Qvalue

|                                |       |     |        |        |        |     |
|--------------------------------|-------|-----|--------|--------|--------|-----|
| 4) N-nitrosodimethylamine      | 2.43  | 74  | 46421  | 90.97  | ug/mLm | 100 |
| 5) Pyridine                    | 1.58  | 79  | 3239   | 8.57   | ug/mL  | 100 |
| 6) Phenol                      | 8.61  | 94  | 94440  | 64.16  | ug/mL  | 100 |
| 7) bis(2-Chloroethyl)ether     | 12.59 | 93  | 122019 | 68.25  | ug/mL  | 93  |
| 8) 2-Chlorophenol              | 8.63  | 128 | 74868  | 66.83  | ug/mL# | 87  |
| 9) 1,3-Dichlorobenzene         | 9.01  | 146 | 60664  | 49.63  | ug/mL  | 97  |
| 10) 1,4-Dichlorobenzene        | 9.26  | 146 | 63929  | 50.69  | ug/mL  | 97  |
| 11) 1,2-Dichlorobenzene        | 9.65  | 146 | 63514  | 53.01  | ug/mL  | 98  |
| 13) bis(2-chloroisopropyl)ethe | 10.26 | 45  | 194225 | 117.78 | ug/mL# | 64  |
| 15) N-Nitroso-Di-n-propylamine | 10.67 | 70  | 78184  | 65.82  | ug/mL  | 99  |
| 16) Hexachloroethane           | 10.61 | 117 | 27204  | 41.80  | ug/mL  | 93  |
| 19) Nitrobenzene               | 10.96 | 77  | 108893 | 70.89  | ug/mL  | 92  |
| 20) Isophorone                 | 11.75 | 82  | 190833 | 58.95  | ug/mL  | 99  |
| 21) 2-Nitrophenol              | 11.88 | 139 | 49518  | 64.97  | ug/mL# | 85  |
| 22) 2,4-Dimethylphenol         | 12.33 | 107 | 57269  | 40.16  | ug/mLm | 1   |
| 23) bis(2-Chloroethoxy)methane | 8.72  | 93  | 80511  | 48.72  | ug/mL  | 99  |
| 24) 2,4-Dichlorophenol         | 12.67 | 162 | 72662  | 67.26  | ug/mL  | 99  |
| 25) 1,2,4-Trichlorobenzene     | 12.83 | 180 | 67428  | 58.72  | ug/mL  | 99  |
| 26) Naphthalene                | 13.00 | 128 | 216145 | 60.94  | ug/mL# | 91  |
| 27) 4-Chloroaniline            | 13.00 | 127 | 27276  | 16.26  | ug/mL# | 4   |
| 28) Hexachlorobutadiene        | 13.52 | 225 | 33024  | 49.25  | ug/mL  | 99  |
| 29) 4-Chloro-3-methylphenol    | 15.04 | 107 | 87494  | 62.90  | ug/mL  | 94  |
| 30) 2-Chloronaphthalene        | 16.58 | 162 | 170492 | 67.60  | ug/mL  | 97  |
| 31) 2-Methylnaphthalene        | 15.04 | 142 | 66426  | 23.33  | ug/mL# | 18  |
| 34) 2,4,6-Trichlorophenol      | 16.12 | 196 | 53903  | 52.11  | ug/mL  | 99  |
| 35) 2,4,5-Trichlorophenol      | 16.12 | 196 | 53903  | 66.79  | ug/mL  | 99  |
| 37) 2-Nitroaniline             | 17.93 | 65  | 3941   | 2.88   | ug/mL# | 100 |
| 38) Dimethylphthalate          | 17.83 | 163 | 113606 | 35.11  | ug/mL  | 99  |

(#)=qualifier out of range (m)=manual integration

b7827.d BNACLP.M

Tue Jun 13 13:10:49 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7827.d

Acq On : 4 Jun 95 6:15 am

Sample : 22654MSD.....

Misc :

Quant Time: Jun 13 13:07 1995

Vial: 26

Operator: SCOTTV

Inst : ABNA

BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 210414   | 49.57  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 54747    | 70.87  | ug/mL  | 92     |
| 42) Acenaphthene               | 18.37 | 153  | 181623   | 71.15  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.68 | 184  | 28083    | 65.49  | ug/mL# | 78     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 28931    | 70.14  | ug/mL  | 91     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 198956   | 68.45  | ug/mL# | 33     |
| 47) Diethylphthalate           | 20.07 | 149  | 146204   | 40.69  | ug/mL  | 99     |
| 48) Fluorene                   | 19.97 | 166  | 215505   | 68.74  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 102158   | 68.80  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2275     | 3.32   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 38003    | 70.01  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.57 | 169  | 120181   | 57.40  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 326407   | 65.42  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 61314    | 72.23  | ug/mL  | 92     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 72489    | 81.98  | ug/mL# | 80     |
| 58) Pentachlorophenol          | 22.31 | 266  | 52714    | 93.08  | ug/mL  | 99     |
| 59) Phenanthrene               | 22.87 | 178  | 336724   | 74.69  | ug/mL  | 98     |
| 60) Anthracene                 | 22.87 | 178  | 345412   | 83.11  | ug/mL  | 97     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 472693   | 71.44  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.13 | 202  | 375315   | 88.04  | ug/mL  | 93     |
| 65) Benzidine                  | 27.15 | 184  | 42901    | 25.67  | ug/ml  | 100    |
| 66) Pyrene                     | 27.13 | 202  | 374572   | 65.30  | ug/mL# | 88     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 211242   | 57.51  | ug/mL  | 99     |
| 69) Benzo[a]anthracene         | 30.87 | 228  | 336521   | 58.13  | ug/mL  | 100    |
| 70) 3,3'-Dichlorobenzidine     | 31.03 | 252  | 109427   | 74.14  | ug/mL# | 96     |
| 71) Chrysene                   | 30.87 | 228  | 341333   | 106.01 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.66 | 149  | 327633   | 62.88  | ug/mL  | 99     |
| 74) Di-n-octylphthalate        | 33.57 | 149  | 500739   | 59.16  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 33.94 | 252  | 196612   | 47.97  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 33.94 | 252  | 196612   | 99.43  | ug/mL  | 93     |
| 77) Benzo[a]pyrene             | 33.94 | 252  | 182768   | 89.67  | ug/mL  | 100    |
| 78) Indeno[1,2,3-cd]pyrene     | 37.41 | 276  | 28662    | 38.13  | ug/mL# | 78     |
| 79) Dibenz[a,h]anthracene      | 37.53 | 278  | 36034    | 49.77  | ug/mL# | 92     |
| 80) Benzo[g,h,i]perylene       | 37.41 | 276  | 28604    | 48.40  | ug/mL  | 93     |

(#) = qualifier out of range (m) = manual integration



Data File : c:\hpchem\1\data2\b7827.d

Vial: 26

Acq On : 4 Jun 95 6:15 am

Operator: SCOTTV

Sample : 22654MSD.....

Converted from RTE d

Inst : ABNA

Misc :

BT Multiplr: 1.00

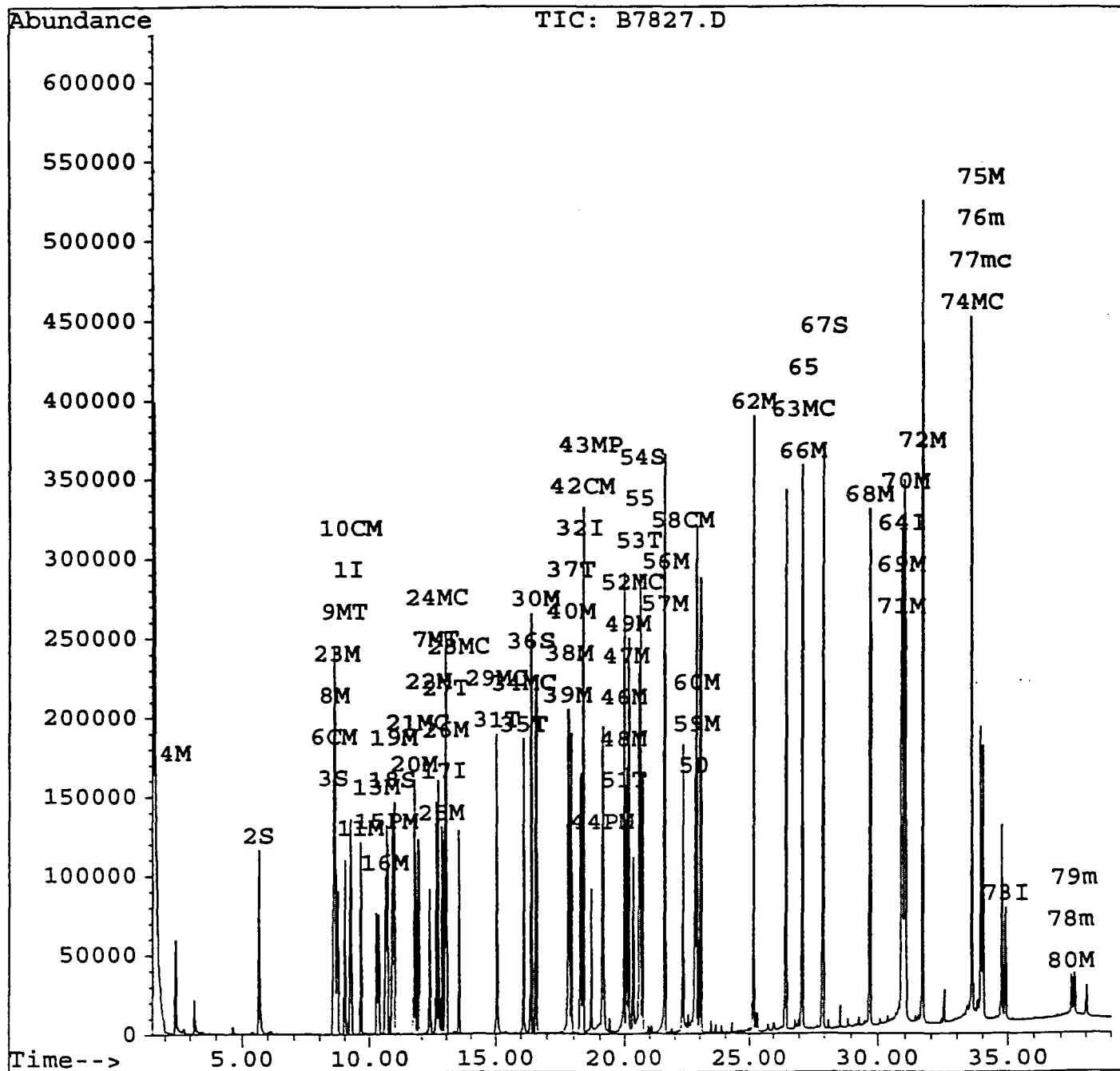
Quant Time: Jun 13 13:07 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Method : C:\HPCHEM\1\METHODS\BNACLP.M  
 Title : CLP BNA Calibration  
 Last Update : Wed May 31 10:06:36 1995  
 Response via : Initial Calibration

Non-Spiked Sample: B7741.D

Spike  
Sample

Spike  
Duplicate Sample

File ID : B7828.D | B7829.D  
 Sample : 22659MS..... Converted from RTE data file >B7828::D5

| Compound             | Sample<br>Conc | Spike<br>Added | Spike<br>Res | Dup<br>Res | Spike<br>%Rec | Dup<br>%Rec | RPD | QC Limits<br>RPD % Rec |
|----------------------|----------------|----------------|--------------|------------|---------------|-------------|-----|------------------------|
| N-nitrosodimethylami | 0.0            | 100            | 83           | 85         | 83            | 85          | 1   | 100   1-300            |
| Phenol               | 0.0            | 100            | 65           | 65         | 65            | 65          | 0   | 23   5-112             |
| bis(2-Chloroethyl)et | 0.0            | 100            | 66           | 64         | 66            | 64          | 2   | 55   12-158            |
| 2-Chlorophenol       | 0.0            | 100            | 65           | 65         | 65            | 65          | 1   | 29   23-134            |
| 1,3-Dichlorobenzene  | 0.0            | 100            | 48           | 48         | 48            | 48          | 1   | 42   1-172             |
| 1,4-Dichlorobenzene  | 0.0            | 100            | 49           | 50         | 49            | 50          | 2   | 32   20-124            |
| 1,2-Dichlorobenzene  | 0.0            | 100            | 52           | 53         | 52            | 53          | 1   | 31   32-129            |
| bis(2-chloroisopropy | 0.0            | 100            | 118          | 119        | 118           | 119         | 1   | 46   36-166            |
| N-Nitroso-Di-n-propy | 0.0            | 100            | 67           | 65         | 67            | 65          | 3   | 55   1-230             |
| Hexachloroethane     | 0.0            | 100            | 51           | 42         | 51            | 42          | 19  | 25   40-113            |
| Nitrobenzene         | 0.1            | 100            | 62           | 66         | 62            | 66          | 6   | 39   35-180            |
| Isophorone           | 0.0            | 100            | 60           | 63         | 60            | 63          | 5   | 63   21-196            |
| 2-Nitrophenol        | 0.0            | 100            | 63           | 65         | 63            | 65          | 4   | 35   29-182            |
| 2,4-Dimethylphenol   | 0.0            | 100            | 34           | 32         | 34            | 32          | 7   | 26   32-119            |
| bis(2-Chloroethoxy)m | 0.0            | 100            | 47           | 50         | 47            | 50          | 6   | 35   33-184            |
| 2,4-Dichlorophenol   | 0.0            | 100            | 68           | 68         | 68            | 68          | 1   | 26   39-135            |
| 1,2,4-Trichlorobenze | 0.0            | 100            | 57           | 60         | 57            | 60          | 6   | 28   44-142            |
| Naphthalene          | 0.0            | 100            | 63           | 66         | 63            | 66          | 4   | 30   21-133            |
| Hexachlorobutadiene  | 0.0            | 100            | 50           | 52         | 50            | 52          | 4   | 26   24-116            |
| 4-Chloro-3-methylphe | 0.0            | 100            | 63           | 63         | 63            | 63          | 1   | 37   22-147            |
| 2-Chloronaphthalene  | 0.0            | 100            | 67           | 70         | 67            | 70          | 4   | 13   60-118            |
| 2,4,6-Trichloropheno | 0.0            | 100            | 55           | 54         | 55            | 54          | 3   | 32   37-144            |
| Dimethylphthalate    | 0.0            | 100            | 38           | 34         | 38            | 34          | 11  | 23   1-112             |
| Acenaphthylene       | 0.0            | 100            | 52           | 52         | 52            | 52          | 0   | 40   33-145            |
| 2,6-Dinitrotoluene   | 0.0            | 100            | 76           | 74         | 76            | 74          | 3   | 30   50-158            |
| Acenaphthene         | 0.0            | 100            | 75           | 76         | 75            | 76          | 1   | 28   47-145            |
| 2,4-Dinitrophenol    | 0.0            | 100            | 67           | 66         | 67            | 66          | 2   | 50   1-191             |
| 4-Nitrophenol        | 0.6            | 100            | 79           | 80         | 79            | 79          | 0   | 47   1-132             |
| 2,4-Dinitrotoluene   | 0.0            | 100            | 71           | 74         | 71            | 74          | 3   | 22   39-139            |
| Diethylphthalate     | 0.0            | 100            | 49           | 48         | 49            | 48          | 2   | 27   1-114             |
| Fluorene             | 0.7            | 100            | 71           | 74         | 70            | 73          | 3   | 21   59-121            |
| 4-Chlorophenyl-pheny | 0.0            | 100            | 70           | 74         | 70            | 74          | 5   | 33   25-158            |
| 4,6-Dinitro-2-methyl | 0.0            | 100            | 75           | 72         | 75            | 72          | 4   | 93   1-181             |
| 4-Bromophenyl-phenyl | 0.0            | 100            | 73           | 76         | 73            | 76          | 3   | 23   53-127            |
| Hexachlorobenzene    | 0.0            | 100            | 84           | 84         | 84            | 84          | 1   | 25   1-152             |
| Pentachlorophenol    | 0.0            | 100            | 90           | 92         | 90            | 92          | 2   | 49   14-176            |
| Phenanthrene         | 0.0            | 100            | 79           | 76         | 79            | 76          | 3   | 21   54-120            |
| Anthracene           | 0.0            | 100            | 88           | 84         | 88            | 84          | 5   | 32   52-115            |
| Di-n-butylphthalate  | 0.1            | 100            | 80           | 79         | 80            | 79          | 1   | 17   1-118             |
| Fluoranthene         | 0.0            | 100            | 96           | 96         | 96            | 96          | 0   | 33   26-137            |
| Pyrene               | 0.0            | 100            | 67           | 68         | 67            | 68          | 2   | 25   52-115            |
| Butylbenzylphthalate | 0.2            | 100            | 67           | 68         | 67            | 67          | 0   | 23   1-152             |
| Benzo[a]anthracene   | 0.1            | 100            | 65           | 64         | 65            | 64          | 1   | 28   33-143            |
| 3,3'-Dichlorobenzidi | 0.0            | 100            | 20           | 31         | 20            | 31          | 46  | 71   1-262             |

|                      |     |     |     |     |     |     |   |    |        |
|----------------------|-----|-----|-----|-----|-----|-----|---|----|--------|
| Chrysene             | 0.1 | 100 | 117 | 117 | 117 | 117 | 0 | 48 | 17-168 |
| bis(2-Ethylhexyl)pht | 0.4 | 100 | 76  | 74  | 75  | 73  | 3 | 41 | 8-158  |
| Di-n-octylphthalate  | 0.0 | 100 | 65  | 68  | 65  | 68  | 6 | 31 | 4-146  |
| Benzo[b]fluoranthene | 0.0 | 100 | 52  | 51  | 52  | 51  | 2 | 39 | 24-159 |
| Benzo[k]fluoranthene | 0.1 | 100 | 108 | 106 | 108 | 106 | 2 | 32 | 11-162 |
| Benzo[a]pyrene       | 0.1 | 100 | 104 | 103 | 104 | 102 | 2 | 39 | 17-163 |
| Indeno[1,2,3-cd]pyre | 0.0 | 100 | 42  | 39  | 42  | 39  | 8 | 45 | 1-171  |
| Dibenz[a,h]anthracen | 0.0 | 100 | 52  | 48  | 52  | 48  | 8 | 70 | 1-227  |
| Benzo[g,h,i]perylene | 0.0 | 100 | 53  | 49  | 53  | 49  | 9 | 59 | 1-219  |

BNACLP.M

Tue Jun 13 13:39:34 1995

BNA

Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.20  | 152  | 28616    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 119812   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 81829    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 135678   | 40.00 | ug/mL | 0.25     |
| 64) Chrysene-d12          | 30.90 | 240  | 133913   | 40.00 | ug/mL | 0.32     |
| 73) Perylene-d12          | 34.89 | 264  | 64806    | 40.00 | ug/mL | 0.30     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.64  | 112 | 38324  | 47.35 | ug/mL | 47.35     |
| 3) Phenol-d5                | 8.55  | 99  | 92701  | 69.20 | ug/mL | 69.20     |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 102452 | 75.05 | ug/mL | 75.05     |
| 36) 2-Fluorobiphenyl        | 16.41 | 172 | 163275 | 66.52 | ug/mL | 66.52     |
| 54) 2,4,6-Tribromophenol    | 20.71 | 330 | 33951  | 92.66 | ug/mL | 92.66     |
| 67) Terphenyl-d14           | 27.93 | 244 | 283818 | 79.85 | ug/mL | 79.85     |

| Target Compounds               |       |     |        |        |        | Qvalue |
|--------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine      | 2.41  | 74  | 34539  | 83.50  | ug/mlm | 0      |
| 5) Pyridine                    | 1.54  | 79  | 2567   | 8.38   | ug/mL  | 100    |
| 6) Phenol                      | 8.59  | 94  | 77522  | 64.98  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl)ether     | 12.59 | 93  | 95053  | 65.59  | ug/mL  | 96     |
| 8) 2-Chlorophenol              | 8.61  | 128 | 59112  | 65.10  | ug/mL  | 95     |
| 9) 1,3-Dichlorobenzene         | 9.01  | 146 | 47356  | 47.79  | ug/mL  | 98     |
| 10) 1,4-Dichlorobenzene        | 9.26  | 146 | 50047  | 48.96  | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene        | 9.65  | 146 | 50447  | 51.95  | ug/mL  | 97     |
| 13) bis(2-chloroisopropyl)ethe | 10.28 | 45  | 157284 | 117.66 | ug/mL# | 66     |
| 15) N-Nitroso-Di-n-propylamine | 10.67 | 70  | 64689  | 67.19  | ug/mL  | 99     |
| 16) Hexachloroethane           | 10.61 | 117 | 26874  | 50.94  | ug/mLm | 92     |
| 19) Nitrobenzene               | 10.94 | 77  | 78667  | 61.95  | ug/mL# | 76     |
| 20) Isophorone                 | 11.75 | 82  | 159932 | 59.77  | ug/mL  | 99     |
| 21) 2-Nitrophenol              | 11.88 | 139 | 39464  | 62.63  | ug/mL  | 87     |
| 22) 2,4-Dimethylphenol         | 12.33 | 107 | 40415  | 34.28  | ug/mLm | 1      |
| 23) bis(2-Chloroethoxy)methane | 8.70  | 93  | 64392  | 47.13  | ug/mL  | 98     |
| 24) 2,4-Dichlorophenol         | 12.67 | 162 | 60633  | 67.90  | ug/mL  | 98     |
| 25) 1,2,4-Trichlorobenzene     | 12.83 | 180 | 53810  | 56.69  | ug/mL  | 99     |
| 26) Naphthalene                | 13.00 | 128 | 185978 | 63.43  | ug/mL# | 91     |
| 27) 4-Chloroaniline            | 13.00 | 127 | 23324  | 16.82  | ug/mL# | 8      |
| 28) Hexachlorobutadiene        | 13.52 | 225 | 27583  | 49.77  | ug/mL  | 98     |
| 29) 4-Chloro-3-methylphenol    | 15.04 | 107 | 71878  | 62.51  | ug/mL  | 92     |
| 30) 2-Chloronaphthalene        | 16.58 | 162 | 140364 | 67.32  | ug/mL  | 95     |
| 31) 2-Methylnaphthalene        | 15.04 | 142 | 56186  | 23.87  | ug/mL# | 18     |
| 34) 2,4,6-Trichlorophenol      | 16.12 | 196 | 47014  | 55.32  | ug/mL  | 97     |
| 35) 2,4,5-Trichlorophenol      | 16.12 | 196 | 47014  | 70.91  | ug/mL  | 98     |
| 37) 2-Nitroaniline             | 17.93 | 65  | 3809   | 3.39   | ug/mL# | 100    |
| 38) Dimethylphthalate          | 17.83 | 163 | 100094 | 37.65  | ug/mL  | 99     |

(#) = qualifier out of range (m) = manual integration

b7828.d BNACLP.M

Tue Jun 13 13:40:34 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 181282   | 51.99  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 48485    | 76.40  | ug/mL  | 81     |
| 42) Acenaphthene               | 18.37 | 153  | 158243   | 75.46  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 23597    | 66.99  | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.14 | 109  | 26892    | 79.36  | ug/mL  | 88     |
| 46) 2,4-Dinitrotoluene         | 19.97 | 165  | 169896   | 71.16  | ug/mL# | 34     |
| 47) Diethylphthalate           | 20.07 | 149  | 145441   | 49.27  | ug/mL  | 98     |
| 48) Fluorene                   | 19.97 | 166  | 183372   | 71.21  | ug/mL  | 99     |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 85539    | 70.12  | ug/mL  | 98     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 1902     | 3.37   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 33506    | 74.96  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 89532    | 51.93  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 282944   | 68.87  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 51088    | 73.08  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 60888    | 83.62  | ug/mL# | 75     |
| 58) Pentachlorophenol          | 22.31 | 266  | 42101    | 90.27  | ug/mL  | 99     |
| 59) Phenanthrene               | 22.85 | 178  | 292342   | 78.75  | ug/mL  | 99     |
| 60) Anthracene                 | 22.85 | 178  | 302620   | 88.42  | ug/mL  | 99     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 437772   | 80.34  | ug/mL  | 99     |
| 63) Fluoranthene               | 27.12 | 202  | 337156   | 96.04  | ug/mL  | 94     |
| 65) Benzidine                  | 27.93 | 184  | 3699     | 2.53   | ug/ml  | 100    |
| 66) Pyrene                     | 27.12 | 202  | 336460   | 66.93  | ug/mL# | 87     |
| 68) Butylbenzylphthalate       | 29.70 | 149  | 217209   | 67.48  | ug/mL  | 87     |
| 69) Benzo[a]anthracene         | 30.88 | 228  | 328642   | 64.77  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 25385    | 19.62  | ug/mLm | 97     |
| 71) Chrysene                   | 30.88 | 228  | 330668   | 117.19 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.67 | 149  | 345135   | 75.58  | ug/mL  | 100    |
| 74) Di-n-octylphthalate        | 33.58 | 149  | 533567   | 64.65  | ug/mL  | 100    |
| 75) Benzo[b]fluoranthene       | 34.03 | 252  | 207506   | 51.92  | ug/mL  | 99     |
| 76) Benzo[k]fluoranthene       | 34.03 | 252  | 207506   | 107.62 | ug/mL  | 92     |
| 77) Benzo[a]pyrene             | 34.03 | 252  | 207506   | 104.42 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.42 | 276  | 30768    | 41.98  | ug/mL# | 84     |
| 79) Dibenz[a,h]anthracene      | 37.54 | 278  | 36991    | 52.40  | ug/mL  | 94     |
| 80) Benzo[g,h,i]perylene       | 37.42 | 276  | 30768    | 53.39  | ug/mL  | 97     |

(#) = qualifier out of range (m) = manual integration

Data File : c:\hpchem\1\data2\b7828.d

Vial: 27

Acq On : 4 Jun 95 7:04 am

Operator: SCOTTV

Sample : 22659MS.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

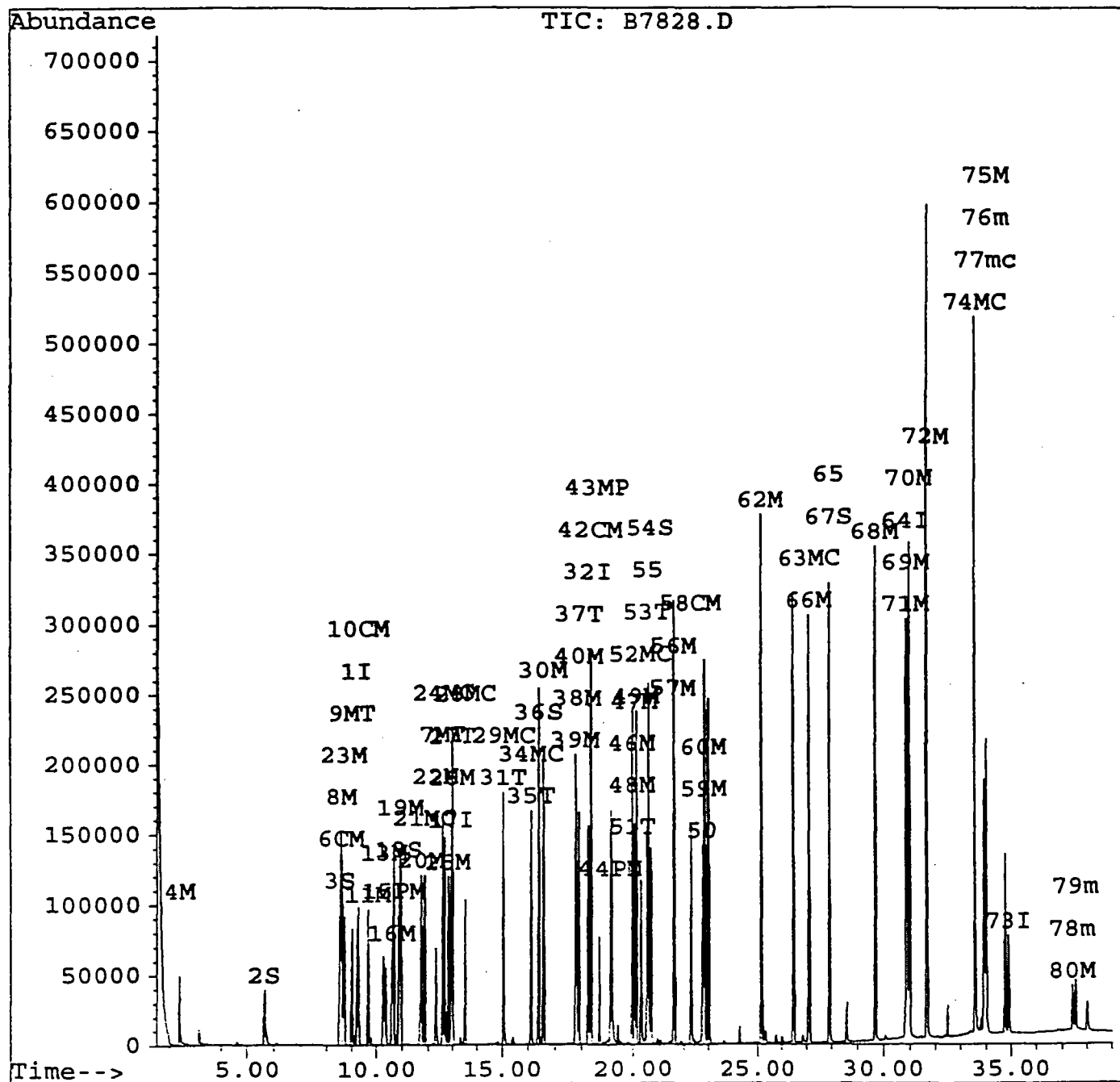
Quant Time: Jun 13 13:36 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



Data File : c:\hpchem\1\data2\b7829.d

Vial: 28

Acq On : 4 Jun 95 7:54 am

Operator: SCOTTV

Sample : 22659MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 9.21  | 152  | 30456    | 40.00 | ug/mL | 0.17     |
| 17) Naphthalene-d8        | 12.94 | 136  | 121585   | 40.00 | ug/mL | 0.19     |
| 32) Acenaphthene-d10      | 18.26 | 164  | 84364    | 40.00 | ug/mL | 0.21     |
| 50) Phenanthrene-d10      | 22.77 | 188  | 145091   | 40.00 | ug/ml | 0.25     |
| 64) Chrysene-d12          | 30.90 | 240  | 140877   | 40.00 | ug/mL | 0.32     |
| 73) Perylene-d12          | 34.90 | 264  | 65773    | 40.00 | ug/mL | 0.30     |

| System Monitoring Compounds |       |     |        |       |       | %Recovery |
|-----------------------------|-------|-----|--------|-------|-------|-----------|
| 2) 2-Fluorophenol           | 5.62  | 112 | 46772  | 54.29 | ug/mL | 54.29%    |
| 3) Phenol-d5                | 8.55  | 99  | 107330 | 75.28 | ug/mL | 75.28%    |
| 18) Nitrobenzene-d5         | 10.88 | 82  | 108636 | 78.42 | ug/mL | 78.42%    |
| 36) 2-Fluorobiphenyl        | 16.41 | 172 | 165709 | 65.48 | ug/mL | 65.48%    |
| 54) 2,4,6-Tribromophenol    | 20.71 | 330 | 39093  | 99.77 | ug/mL | 99.77%    |
| 67) Terphenyl-d14           | 27.93 | 244 | 291732 | 78.02 | ug/mL | 78.02%    |

| Target Compounds                |       |     |        |        |        | Qvalue |
|---------------------------------|-------|-----|--------|--------|--------|--------|
| 4) N-nitrosodimethylamine       | 2.41  | 74  | 37285  | 84.69  | ug/mlm | 0      |
| 5) Pyridine                     | 1.56  | 79  | 2539   | 7.79   | ug/ml  | 100    |
| 6) Phenol                       | 8.59  | 94  | 82228  | 64.76  | ug/mL  | 100    |
| 7) bis(2-Chloroethyl) ether     | 12.60 | 93  | 99103  | 64.25  | ug/mL  | 98     |
| 8) 2-Chlorophenol               | 8.61  | 128 | 63241  | 65.44  | ug/mL  | 94     |
| 9) 1,3-Dichlorobenzene          | 9.01  | 146 | 51022  | 48.38  | ug/mL  | 97     |
| 10) 1,4-Dichlorobenzene         | 9.26  | 146 | 54214  | 49.83  | ug/mL  | 99     |
| 11) 1,2-Dichlorobenzene         | 9.65  | 146 | 54332  | 52.57  | ug/mL  | 98     |
| 13) bis(2-chloroisopropyl) ethe | 10.28 | 45  | 169096 | 118.86 | ug/mL# | 65     |
| 15) N-Nitroso-Di-n-propylamine  | 10.67 | 70  | 66550  | 64.95  | ug/mL  | 99     |
| 16) Hexachloroethane            | 10.61 | 117 | 23688  | 42.19  | ug/mL  | 96     |
| 19) Nitrobenzene                | 10.94 | 77  | 84987  | 65.95  | ug/mL# | 77     |
| 20) Isophorone                  | 11.75 | 82  | 169858 | 62.55  | ug/mL  | 99     |
| 21) 2-Nitrophenol               | 11.88 | 139 | 41660  | 65.15  | ug/mL  | 88     |
| 22) 2,4-Dimethylphenol          | 12.33 | 107 | 38383  | 32.08  | ug/mLm | 1      |
| 23) bis(2-Chloroethoxy) methane | 8.70  | 93  | 69472  | 50.11  | ug/mL  | 100    |
| 24) 2,4-Dichlorophenol          | 12.67 | 162 | 61214  | 67.55  | ug/mL  | 97     |
| 25) 1,2,4-Trichlorobenzene      | 12.83 | 180 | 58047  | 60.26  | ug/mL  | 99     |
| 26) Naphthalene                 | 13.00 | 128 | 195977 | 65.87  | ug/mL# | 91     |
| 27) 4-Chloroaniline             | 13.00 | 127 | 24740  | 17.58  | ug/mL# | 10     |
| 28) Hexachlorobutadiene         | 13.50 | 225 | 28998  | 51.56  | ug/mL  | 97     |
| 29) 4-Chloro-3-methylphenol     | 15.04 | 107 | 73983  | 63.40  | ug/mL  | 98     |
| 30) 2-Chloronaphthalene         | 16.58 | 162 | 148187 | 70.04  | ug/ml  | 98     |
| 31) 2-Methylnaphthalene         | 15.04 | 142 | 56674  | 23.73  | ug/mL# | 18     |
| 34) 2,4,6-Trichlorophenol       | 16.12 | 196 | 47065  | 53.72  | ug/mL  | 98     |
| 35) 2,4,5-Trichlorophenol       | 16.12 | 196 | 47065  | 68.86  | ug/mL  | 99     |
| 37) 2-Nitroaniline              | 17.93 | 65  | 3818   | 3.30   | ug/mL# | 100    |
| 38) Dimethylphthalate           | 17.83 | 163 | 92844  | 33.88  | ug/mL  | 99     |

(#)=qualifier out of range (m)=manual integration

b7829.d BNACLP.M

Tue Jun 13 13:41:28 1995

BNA

Page 1

Data File : c:\hpchem\1\data2\b7829.d

Vial: 28

Acq On : 4 Jun 95 7:54 am

Operator: SCOTTV

Sample : 22659MSD..... Converted from RTE d Inst : ABNA

Misc : BT Multiplr: 1.00

Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration

| Compound                       | R.T.  | QIon | Response | Conc   | Unit   | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 39) Acenaphthylene             | 17.80 | 152  | 187395   | 52.13  | ug/mL  | 99     |
| 40) 2,6-Dinitrotoluene         | 17.93 | 165  | 48705    | 74.44  | ug/mL  | 81     |
| 42) Acenaphthene               | 18.37 | 153  | 164599   | 76.13  | ug/mL  | 99     |
| 43) 2,4-Dinitrophenol          | 18.66 | 184  | 23948    | 65.95  | ug/mL  | 99     |
| 44) 4-Nitrophenol              | 19.15 | 109  | 27839    | 79.68  | ug/mL  | 90     |
| 46) 2,4-Dinitrotoluene         | 19.95 | 165  | 181124   | 73.58  | ug/mL# | 31     |
| 47) Diethylphthalate           | 20.07 | 149  | 147246   | 48.39  | ug/mL  | 98     |
| 48) Fluorene                   | 19.95 | 166  | 195315   | 73.56  | ug/mL  | 100    |
| 49) 4-Chlorophenyl-phenylether | 20.15 | 204  | 92973    | 73.93  | ug/mL  | 99     |
| 51) 4-Nitroaniline             | 19.97 | 138  | 2140     | 3.55   | ug/mL# | 23     |
| 52) 4,6-Dinitro-2-methylphenol | 20.32 | 198  | 34580    | 72.34  | ug/mL  | 100    |
| 53) n-Nitrosodiphenylamine     | 20.55 | 169  | 103444   | 56.10  | ug/mL# | 1      |
| 55) 1,2-Diphenylhydrazine (as  | 20.63 | 77   | 304015   | 69.20  | ug/ml  | 100    |
| 56) 4-Bromophenyl-phenylether  | 21.61 | 248  | 56539    | 75.63  | ug/mL  | 94     |
| 57) Hexachlorobenzene          | 21.59 | 284  | 65629    | 84.28  | ug/mL# | 76     |
| 58) Pentachlorophenol          | 22.31 | 266  | 45874    | 91.98  | ug/mL  | 96     |
| 59) Phenanthrene               | 22.85 | 178  | 302063   | 76.09  | ug/mL  | 100    |
| 60) Anthracene                 | 22.85 | 178  | 307177   | 83.93  | ug/mL  | 99     |
| 62) Di-n-butylphthalate        | 25.16 | 149  | 462525   | 79.38  | ug/mL  | 100    |
| 63) Fluoranthene               | 27.12 | 202  | 360324   | 95.98  | ug/mL  | 93     |
| 65) Benzidine                  | 27.93 | 184  | 3521     | 2.29   | ug/ml  | 100    |
| 66) Pyrene                     | 27.12 | 202  | 359722   | 68.02  | ug/mL# | 89     |
| 68) Butylbenzylphthalate       | 29.69 | 149  | 229144   | 67.66  | ug/mL  | 98     |
| 69) Benzo[a]anthracene         | 30.88 | 228  | 343280   | 64.31  | ug/mL  | 99     |
| 70) 3,3'-Dichlorobenzidine     | 31.00 | 252  | 42496    | 31.23  | ug/mLm | 95     |
| 71) Chrysene                   | 30.88 | 228  | 346867   | 116.85 | ug/mL  | 97     |
| 72) bis(2-Ethylhexyl)phthalate | 31.68 | 149  | 354135   | 73.72  | ug/mL  | 97     |
| 74) Di-n-octylphthalate        | 33.58 | 149  | 572669   | 68.37  | ug/mL  | 99     |
| 75) Benzo[b]fluoranthene       | 34.03 | 252  | 206742   | 50.97  | ug/mL  | 98     |
| 76) Benzo[k]fluoranthene       | 34.03 | 252  | 206742   | 105.65 | ug/mL  | 95     |
| 77) Benzo[a]pyrene             | 34.03 | 252  | 206742   | 102.50 | ug/mL  | 98     |
| 78) Indeno[1,2,3-cd]pyrene     | 37.42 | 276  | 28894    | 38.84  | ug/mL  | 89     |
| 79) Dibenz[a,h]anthracene      | 37.52 | 278  | 34681    | 48.41  | ug/mL# | 86     |
| 80) Benzo[g,h,i]perylene       | 37.42 | 276  | 28610    | 48.92  | ug/mL  | 100    |

(#) = qualifier out of range (m) = manual integration

b7829.d BNACLP.M

Tue Jun 13 13:41:36 1995

BNA

Page 2



Data File : c:\hpchem\1\data2\b7829.d

Vial: 28

Acq On : 4 Jun 95 7:54 am

Operator: SCOTTV

Sample : 22659MSD.....

Converted from RTE d Inst : ABNA

Misc :

BT Multiplr: 1.00

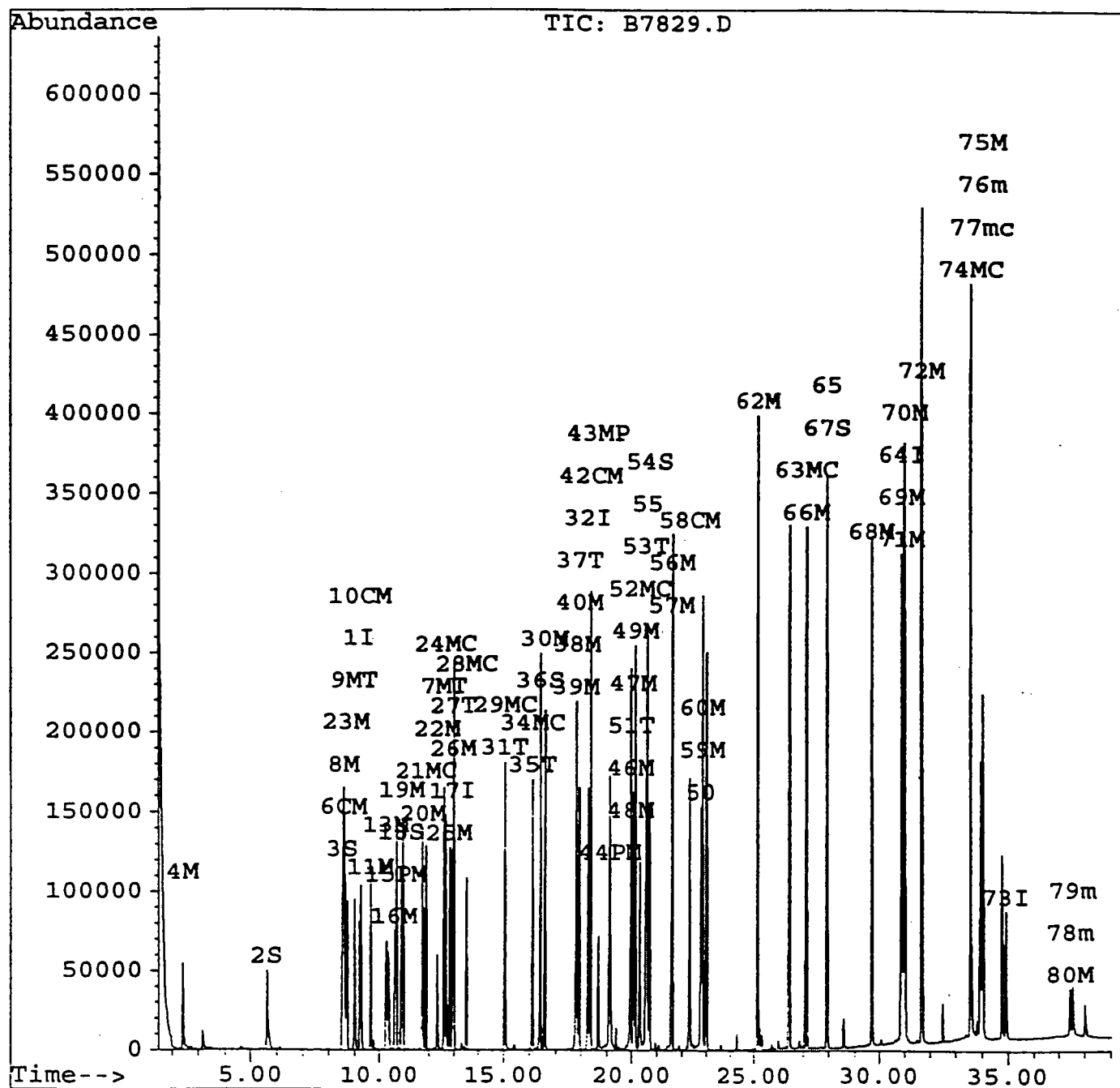
Quant Time: Jun 13 13:38 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M

Title : CLP BNA Calibration

Last Update : Wed May 31 10:06:36 1995

Response via : Multiple Level Calibration



EMSL

New Jersey Department of Environmental Protection  
Division of Water Resources  
Bureau of Underground Storage Tanks  
CN-029, Trenton, New Jersey 08625

### LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.



Laboratory Manager (as defined in N.J.A.C. 7:18 )