



New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document:

- "Letter Work Plan Addendum for UST 482 Area, Fort Monmouth, New Jersey" (4 August 2017)

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin

Representative First Name: William Representative Last Name: Colvin

Title: Fort Monmouth BRAC Environmental Coordinator (BEC)

Phone Number: (732) 380-7064

Ext: _____

Fax: _____

Mailing Address: P.O. Box 148

City/Town: Oceanport

State: NJ

Zip Code: 07757

Email Address: william.r.colvin18.civ@mail.mil

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____

Date: _____

Name/Title: William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, New Jersey 07927-1112



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

4 August 2017

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management and Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927

**SUBJECT: Letter Work Plan Addendum for UST 482 Area
Fort Monmouth, New Jersey
PI G000000032**

Dear Mr. Joshi:

The purpose of this Work Plan Addendum is to supplement the environmental investigation of the UST 482 area within Parcel 83. This proposed work was referred to in the response to Comment D1 of the 12 July 2016 Army letter to NJDEP (**Attachment A**).

Historical activities from 1994 through 2011 included removal of: 1) UST 482 (a steel 1000-gallon fuel oil tank; 2) remnants of a "concrete pit" thought to be a septic tank; and 3) at least 80 cubic yards of petroleum-contaminated soil. Elevated concentrations of Total Petroleum Hydrocarbons (TPH) were reported in two of the 14 samples collected from the 1994 excavation at concentrations of 14,100 mg/kg and 29,400 mg/kg. As shown on Figure 4 of **Attachment A**, the soil represented by these 1994 soil sample results was removed by multiple excavation events between 1994 and 2002, and subsequent sample results from 2002 were 368 to 458 mg/kg TPH. The Army's No Further Action (NFA) request was approved by NJDEP in 2003.

Additional sampling of soil and groundwater and analyses for volatile organic compounds (VOCs) plus tentatively identified compound (TICs), semivolatile organic compounds (SVOCs) plus TICs, metals, pesticides, PCBs, and cyanide were performed in 2010 and 2011 to determine if there were impacts to soil or groundwater from the former septic. A summary of the UST removal, septic tank removal, and 2010 and 2011 sampling and analyses are included in the Underground Storage Tank File Review (**Attachment A**).

During the Parcel 83 field sampling activities in April 2016, elevated photoionization detector (PID) readings were noted on the field log for soil boring FTMM-83-SS-12 (also designated as FTMM-83-SB-12; see **Attachment B**). Field personnel also verbally reported sheen on groundwater and odors consistent with fuel oil in this boring; however, the associated soil sample was analyzed for polynuclear aromatic hydrocarbons (PAHs) rather than petroleum constituents in accordance with the Parcel 83 work plan approved by NJDEP on 22 December 2015. Boring

FTMM-83-SB-13 located towards the southwest (and upgradient) of FTMM-83-SB-12 had no field observations of petroleum contamination.

As described in this Work Plan Addendum, additional soil and groundwater sampling are proposed to investigate the field observations of possible fuel oil contamination that were reported during the April 2016 field sampling activities at Parcel 83. Proposed sampling locations are presented in **Figure 1** and a summary of the proposed soil and groundwater sampling and analyses is presented in **Table 1**.

A minimum of four Geoprobe borings (482-SB-01 through 482-SB-04) will be installed as shown on **Figure 1** to assess the field observations encountered in April 2016. Three soil samples will be collected from each boring. An additional four Geoprobe borings will be installed at discretionary locations, if warranted, based on the preliminary data results or field observations of contamination. Boring 482-SB-01 is proposed to be installed immediately adjacent to previous boring FTMM-83-SS-12, where the field observations of petroleum were noted. Groundwater will be sampled by installing temporary wells with the Geoprobe within two of the four initial borings, anticipated to be 482-SB-01 and 482-SB-03, to determine if groundwater concentrations exceed NJDEP Ground Water Quality Criteria (GWQC). If preliminary data results suggest the need for permanent wells, then two to four permanent wells will be added to the field program in a subsequent mobilization.

Each soil sample will be analyzed for extractable petroleum hydrocarbons (EPH). A minimum of 25 percent of the samples with EPH concentrations greater than 1000 mg/kg will also be analyzed for 2-methylnaphthalene and naphthalene. Groundwater will be analyzed for VOCs+TICs and SVOCs+TICs. These soil and groundwater analyses are consistent with the requirements for No. 2 fuel oil in Table 2-1 of the NJAC 7:26E Technical Requirements for Site Remediation. A summary of the soil and groundwater sampling and analyses is presented in **Table 1**.

We look forward to your review of this proposed sampling plan, and approval or additional comments. The technical Point of Contact (POC) for this matter is Kent Friesen at (732) 383-7201 or kent.friesen@parsons.com. Should you have any questions or require additional information, please contact me by phone at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

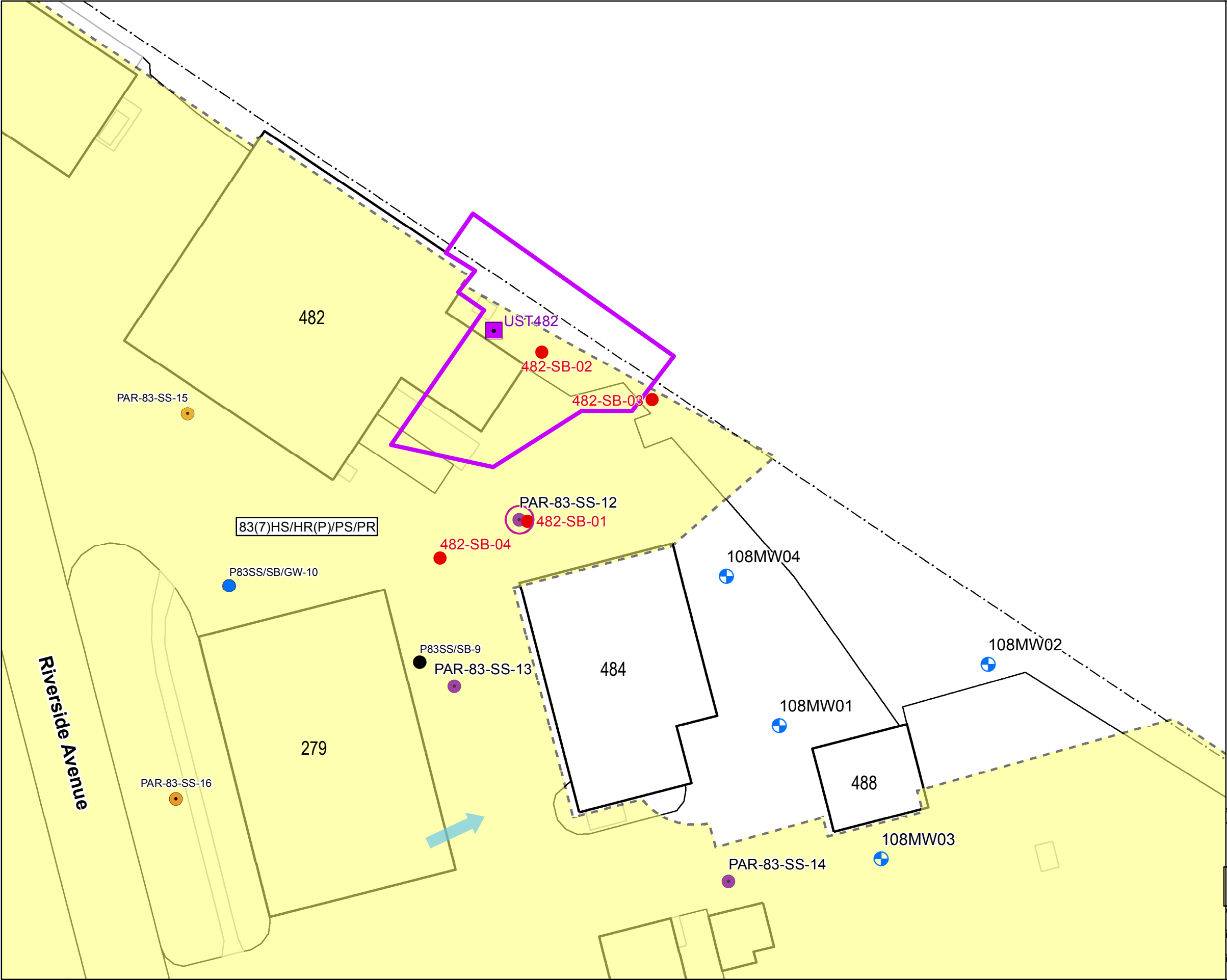
Attachments:

- Figure 1: Proposed Sampling Locations
- Table 1: Summary of Proposed Sampling for UST 482 Area
- A. Correspondence and Historical Information
- B. 2016 Soil Boring Log for FTMM-83-SS-12 (also designated as FTMM-83-SB-12)

Mr. Ashish Joshi, NJDEP
Letter Work Plan Addendum for UST 482 Area
4 August 2017
Page 3 of 3

cc: Ashish Joshi (2 hard copies)
William R. Colvin, FTMM (1 hard copy and email)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Cris Grill, Parsons (e-mail)

Z:\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\Work Plans\UST 482\UST 482 Figure 1.mxd

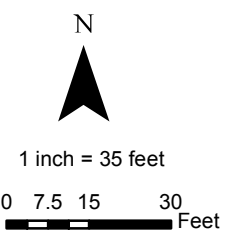


LEGEND:

- Former UST 482 Location
- Approximate Limit of 1998 Soil Excavation
- Proposed Sample Locations
- Elevated PID noted in Boring
- Surface/Subsurface Soil Sample Location (for analysis of VOCs, PAHs, Lead, and Arsenic) and Groundwater Grab Sample Location (for analysis of VOCs)
- Surface/Subsurface Soil Sample Location (for analysis of Lead, Arsenic)
- Surface/Subsurface Soil Sample Location (for analysis of PAHs)
- Surface/Subsurface Soil Sample Location (for analysis of PAHs, PCBs, and Lead)
- Surface/Subsurface Soil Sample (for analysis of Lead & PCBs)
- Historic Geoprobe Soil Sample Location
- Historic Geoprobe Soil & Groundwater Sample Location
- Parcel 83 Boundary
- Shallow Monitoring Well
- Surface Water Feature
- Installation Boundary
- Generalized Groundwater Flow Direction

BRAC Parcel Label Definitions

8(2)PS	Contaminant Description	Category Number	Parcel Number
HS	Hazardous Substance Storage		
HR	Hazardous Substance Release		
PS	Petroleum Storage		
PR	Petroleum Release		
(P)	Possible Release or Disposal		



Source: FTMM Supplied CAD; Shaw Environmental 2008.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
PROPOSED SAMPLING LOCATIONS	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2017	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: UST 482 Figure 1.mxd

TABLE 1
SUMMARY OF PROPOSED SAMPLING FOR UST 482 AREA
FORT MONMOUTH, NEW JERSEY

Site	Location	Number of Primary Borings ^{a/}	Number of Contingency Borings or Wells ^{a/}	Unfraction-ated EPH ^{b/}	VOCs + TICs by Method 8260C ^{c/}	SVOCs + TICs by Method 8270C ^{d/}	Number of Primary Samples	Number of Contingency Samples	Rationale
Soil									
UST 482 Area	Primary Borings 482-SB-01 through -04 (see Figure1): 4 soil borings, 3 samples each.	4	0	12	0	4	12	0	Characterize soils at and around previous (April 2016) boring FTMM-83-SB-12. Collect soil samples from above, within, and below the most contaminated depth interval based on field observations or PID. If no contamination is observed in boring, then collect samples from 1.5 to 2.0 ft, 3.0 to 3.5 ft (water table) and 6.0 to 6.5 ft.
	Contingency Borings 482-SB-05 through -08 (not shown on figure): up to 4 soil borings, 3 samples each.	0	4	12	0	4	0	12	Further delineate contamination in above primary soil borings; same sample depth strategy as above.
Groundwater									
UST 482 Area	Up to 4 permanent monitor wells	0	4	0	8	8	0	8	Contingency permanent monitor wells may be installed if GWQC are exceeded and contamination is not delineated. Initially sample within 2 discrete depth profiles per well.
QA/QC samples (see SAP for additional details) ^{e/}									
Field Duplicates (5% Sampling Frequency per media)		NA	NA	2	1	2	1	1	--
Matrix Spike (5% Sampling Frequency per media)		NA	NA	2	1	2	1	1	--
Matrix Spike Duplicate (5% Sampling Frequency per media)		NA	NA	2	1	2	1	1	--
Trip Blank (1 per cooler of VOCs per media)		NA	NA	0	1	0	0	0	--
QA Split (5% per media)		NA	NA	2	1	2	1	1	--
Equipment Blank (5% Sampling Frequency per media)		NA	NA	2	1	2	1	1	--
TOTAL		4	8	34	14	26	17	25	--

Notes:

NA = not applicable.

^{a/} Field measurements for borings include, in soil samples: photoionization detector (PID) readings along entire soil column; and in groundwater: PID headspace, pH, temperature, electrical conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity.

^{b/} EPH = extractable petroleum hydrocarbons. If any EPH concentrations in soil exceed 1000 mg/kg in any of the site samples, then minimum 25% of the samples where EPH exceeds 1000 mg/kg will also be analyzed for 2-methylnaphthalene and naphthalene.

^{c/} VOCs = volatile organic compounds; TICs = tentatively identified compounds.

^{d/} SVOCs = semivolatile organic compounds; TICs = tentatively identified compounds.

^{e/} QA/QC = quality assurance/quality control; SAP = Sampling and Analysis Plan. The requirement for QA/QC samples may be fulfilled with samples from other parcels.

Attachment A
Correspondence and Historical Information

Includes:

- 12 July 2016 Army letter, Re: *Response to NJDEP's October 13, 2015 Comments on the July 30, 2015 No Further Action Request, Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks, Fort Monmouth, NJ.*
- Attachment O "UST 482 File Review and Analyses," from *No Further Action Request, Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks, Fort Monmouth, NJ.* Includes:
 - Attachment O, Enclosure 1: *UST 482 – Fort Monmouth 2010 Work Order Report*
 - Attachment O, Enclosure 2: *UST 482 – Analytical Data Reports (103721, 10373, and 11264)*



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

July 12, 2016

Ms. Linda Range
New Jersey Department of Environmental Protection
Bureau of Case Management
401 East State Street
PO Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028

**Re: Response to NJDEP's October 13, 2015 Comments on the July 30, 2015 No Further Action Request, Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks, Fort Monmouth, NJ
PI G000000032**

Dear Ms. Range:

The Fort Monmouth team has reviewed the New Jersey Department of Environmental Protection (NJDEP) comments on the subject submittal for underground storage tanks (USTs) at ECP Parcel 83, as documented in your letter dated October 13, 2015. We appreciate this opportunity to work with you on Parcel 83 USTs. Responses to your comments are provided below, for your review and concurrence or further comments.

A. General Comments

A1. COMMENT: *Page 2 of 4 of the submittal indicates certain USTs specifically mentioned in previous NJDEP comments are not included in this submittal as there are no USTs associated with the particular buildings, specifically Buildings 66, 281 or 479. In reviewing this submittal, the UST referenced as near Building 281 appears to have been addressed via remedial activities at UST 108-7; see below for comment regarding same. USTs at (former) Buildings 66 and 479 (and 478) are shown in the 1956 Fuel Storage map, Appendix O, of the '07 ECP, as well as indicated as "high potential UHOTs" in Figure 2 of the July 2014 UHOT Investigation Report. Unless all tanks, former and/or current, have been evaluated in accordance with the applicable regulations and guidance documents, the NJDEP cannot comment as to the potential absence or presence of a petroleum discharge associated with those tanks.*

A1. RESPONSE: As discussed in the Parcel 83 USTs submittal, the Army has conducted a detailed review of available information to assess the presence of USTs within Parcel 83. Since there were no additional indications of USTs at Buildings 66, 478, and 479, the Army is not proposing additional assessment work at these locations. We concur that the UST near Building 281 is UST 108-7 (aka UST 108A) for which a NFA determination was received (NJDEP letter dated October 13, 2015).

A2. COMMENT: *As indicated in the submittal, numerous underground storage tanks (USTs) have previously received a designation of No Further Action (NFA) required. Based upon a review of the referenced submittal, it is also agreed NFA is necessary for the following USTs:*

- UST 49-76 & UST-49-77; #01-05-24-1004-1; each 5000 g gasoline (Attachment E)
- UST 63B aka UST 63-2; 1000 g #2 fuel (Attachment F)
- UST 108A aka 108-7; 1000 g #2 fuel (Attachment I)
- UST 116B aka UST 116-9; #97-04-10-1409-35; 1000 g #2 fuel; NFAed 10/23/00; ECP Parcel 85; additional sampling performed in May 2010 indicates NFA remains appropriate (Attachment J)
- UST 117C aka UST 117-72; #84-04-28-1944-21; 1000 g #2 fuel; ECP Parcel 86 (Attachment K)
- USTs 161 – Parcel 87 (Attachment L)
 - o UST 161-68; 550 g waste oil
 - o UST 161-14; 1000 g #2 fuel; #93-03-12-2158-30
- UST 167-18; 1000 g #2 diesel (Attachment M)
- USTs 273 aka 009001-65,66 & 67 (Attachment N)
 - o UST 273-65; 6000 g diesel
 - o UST 273-66; 10,000 gasoline
 - o UST 273-67; 10,000 g gasoline
 - o Note – the NFA is applicable to the USTs only, not the dispenser/s, which were reported as used with the AST fuel storage system which replaced USTs 273 until subsequent AST closure in 2011
- UST 483-55; #97-03-19-1359-16; previously NFAed 10/23/00; additional sampling performed in May 2010 indicates NFA remains appropriate (Attachment P)

A2: RESPONSE: Agreed. UST 273 had newer (1991) fiberglass tanks and piping with secondary containment, and was fully compliant with the release detection requirements for tanks (N.J.A.C 7:14B-6.5) and piping (7:14B-6.6). Further, the dispenser islands were less than 10 ft from the UST excavation, so any leakage from the dispenser area would likely have been detected in closure soil samples (which were clean). The Army is not proposing additional assessment work at the dispensers.

B. UST 80 aka 80-6 aka FTMM-56 – Parcel 84 (Attachment G)

B1. COMMENT: UST 80-6 was a #2 fuel tank which was granted an NFA by the Department on August 29, 2000. Ground water contamination at FTMM-56 unrelated to #2 fuel was monitored on a quarterly basis for many years. Submittal of analytical results from the additional round of ground water sampling as per the DEP's July 3, 2014 comment letter are pending.

B1. RESPONSE: We anticipate a future Army submittal concerning IRP site FTMM-56 (Building 80 Petroleum Release) that will summarize the soil and groundwater results.

C. USTs 108-60 through 64 aka FTMM-57 – Parcel 90

C1. COMMENT: Attachment H references five USTs which were removed in April of 1993, and lists just over a page with descriptive bullets of documents reported to include remedial activities relative to these USTs, concluding that reported results support site characterization work is complete. The submittal, however, includes no results; comments regarding adequacy of characterization and recommendations as to additional action are therefore not possible at this time.

C1. RESPONSE: We anticipate a future Army submittal concerning IRP site FTMM-57 (Building 108 UST Gasoline Release) that will summarize the soil and groundwater analytical results.

D. UST 482-54 – Parcel 93 (located within Parcel 83)

D1. COMMENT: *As regarding UST 482-54 (#94-08-11-1345-43), which was NFAed in January of 2003, Attachment O appears to indicate TPH contaminated soils remain at levels of 14,100 ppm and 29,400 ppm. As indicated in the email of October 9, 2015, clarification is requested, as a designation of NFA is not appropriate for contamination at this level.*

D1. RESPONSE: Historical information and recent (April 2016) field observations of elevated photoionization detector (PID) readings in a boring near UST 482-54 indicate ~~that additional~~ characterization of the former UST 482 area is warranted. Field sampling at the UST 482 area will be performed at the same time that additional sampling at Parcel 83 is performed (which will be described under separate cover).

We request your review of these responses regarding USTs at ECP Parcel 83. Additional submittals for FTMM-56 (Building 80), FTMM-57 (Building 108), and UST 482 are forthcoming, as indicated above. Other specific issues concerning known or suspected non-UST contamination of soil or groundwater at Parcel 83 will also be addressed under separate cover as described in the November 2015 (Revision 1) *Environmental Condition of Property Phase II Site Investigation Work Plan Addendum* (the ECP Work Plan Addendum).

The technical Point of Contact (POC) for this matter is Kent Friesen at (732) 383-7201 or by email at kent.friesen@parsons.com. Should you have any questions or require additional information, please contact me by phone at (732) 380-7064 or by e-mail at william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, PG, CHMM
BRAC Environmental Coordinator

cc: Linda Range, NJDEP (e-mail and 3 hard copies)
Delight Balducci, HQDA ACSIM (e-mail)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Cris Grill, Parsons (e-mail)

Attachment O from the July 2015 Army document entitled No Further Action Request, Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks (the "Parcel 83 UST submittal").

ATTACHMENT O

UST 482 File Review and Analyses

Contents:

- Bldg. 482 Underground Storage Tank File Review
- Enclosure 1 – Fort Monmouth 2010 Work Order Report
- Enclosure 2 –Analytical Data Reports (10372, 10373, and 11264)

UNDERGROUND STORAGE TANK FILE REVIEW
FORT MONMOUTH BRAC 05 FACILITY
OCEANPORT, NEW JERSEY

Date: July 21, 2015Review Performed By: Kent Friesen, ParsonsSite ID: **Bldg. 482**

Registration ID: 90010-54

Recommended Status of Site: **Case Closed (no change)**UST Probability (from May 2014 "Addendum 1 ECP UHOT Report"): **None**Based on the file review, were there indications of a contaminant release? ☒ Yes ☐ NoNJDEP Release No. or DICAR (If applicable): 94-8-11-1345-43Did NJDEP approve No Further Action (NFA) for this site? ☒ Yes ☐ No ☐ Not ApplicableTank Description: ☒ Steel ☐ Fiberglass Size: 1000 gals. Contents: #2 Fuel Oil☐ Residential ☒ Commercial/IndustrialTank Removed? ☒ Yes ☐ No If "yes," removal date: 8/11/1994Were closure soil samples taken? ☒ Yes ☐ No Analyses: TPHComparison criteria: 5,100 mg/kgWere closure soil sample results less than comparison criteria? ☐ Yes ☒ No

Brief Narrative

This steel No. 2 fuel oil UST was located adjacent to Building 482. Following tank removal in April 1994, soil samples were collected from the tank excavation and analyzed by the Fort Monmouth Environmental Laboratory for total petroleum hydrocarbons (TPH). The initial soil sample results indicated some residual contamination, and a total of 80 cubic yards of petroleum-contaminated soil was excavated for offsite disposal. The final soil sample results ranged from 41 mg/kg to 2689 mg/kg for TPH, except for two locations that were sampled after soil excavation that contained 14,100 mg/kg to 29,400 mg/kg. Due to these elevated concentrations, additional soil samples were collected from seven additional locations and analyzed for TPH and volatile organic compounds (VOCs). VOCs were not detected in the additional samples, and TPH results from these later samples were less than the then-current remediation criteria of 10,000 mg/kg. Since sheen was observed on groundwater, two monitoring wells were installed downgradient of the tank excavation, and two rounds of groundwater were sampled and analyzed for VOCs and SVOCs. Groundwater results were less than the then-current Ground Water Quality Criteria (GWQC). A UST closure report for tank 482 was prepared in 2002 by Versar (*Underground Storage Tank Closure and Site Investigation Report, Building 482, Main Post-East Area*) and submitted to NJDEP. The site was approved for No Further Action (NFA) by NJDEP in their letter dated January 10, 2003.

Additional sampling of soil and groundwater was completed by FTMM in August 2010 at the former UST 482 site. A Scope of Work and additional field notes describing the sampling activities is presented in Enclosure 1, and the resulting analytical data is presented in Enclosure 2. The concentration of 2-methylnaphthalene in soil sample 482/SB-1 (5.0 to 5.5 ft bgs; collected on August 31, 2010) was 11.35 mg/kg, which exceeded NJDEP's impact to groundwater pathway screening level of 5 mg/kg. There were also multiple Tentatively Identified Compounds (TICs) in this soil sample that were consistent with petroleum hydrocarbon contamination. A temporary well groundwater sample 482/TMP-1 was also

collected on August 31, 2010 that contained no detected VOC target analytes, but multiple VOC TICs (sum estimated concentration of 512 µg/L) that were consistent with petroleum hydrocarbon contamination. The target SVOC analyte 2-methylnaphthalene was detected in this groundwater sample at a concentration of 8 µg/L, which is less than the NJDEP interim ground water quality criterion of 30 µg/L. Multiple SVOC TICs (sum estimated concentration of 184 µg/L) were also detected in this sample that were consistent with petroleum hydrocarbon contamination.

An additional temporary well groundwater sample 482-GW2 was collected on June 25, 2011 for VOCs and total lead analysis; detected constituents included benzene (0.17 µg/L, which is less than the NJDEP GWQS of 1 µg/L), VOC TICs (sum estimated concentration of 602 µg/L), and lead (80.6 µg/L, which exceeds the NJDEP GWQS of 5 µg/L).

Further discussion is warranted regarding the 2010 and 2011 groundwater results. Lead exceeded the NJDEP GWQS, but is not likely a constituent of fuel oil; however, lead is a potential analyte of concern at the adjacent Site 108 gasoline USTs (also known as IRP Site FTMM-57). Further, lead could be attributed to sample turbidity in the temporary well. Therefore, the lead results are not likely attributed to the 482 UST site. 2-Methylnaphthalene is a likely fuel oil constituent that was detected in Site 482 groundwater, but the most recent (2010) data indicates that the concentration of this analyte is less than the interim GWQS of 30 µg/L.

In summary, NFA is warranted for soil and groundwater at Site 482.

Recommendations (if any): Submit for review; however, NFA already approved from NJDEP

Signed: 
Kent A. Friesen, Parsons

ATTACHMENT O, Enclosure 1

UST 482 - Fort Monmouth 2010 Work Order Report

Date Prepared: August 12, 2010

Prepared by: Robert Youhas

Scope of Work for Building 482

Background

On August 11, 1994, one, 1,000-gallon, steel heating oil underground storage tank (UST) was removed from an area approximately 10 feet east of building 482. No pitting or holes were observed on the surface of the UST (#0090010-54). However, staining was observed in soil surrounding the UST and a sheen was observed on groundwater present in the excavation. Approximately 80 cubic yards of visually contaminated soil was removed. Based on the staining observed, the New Jersey Department of Environmental Protection (NJDEP) was notified and case #94-8-11-1345-43 was assigned. During removal of the UST and excavation of visually contaminated soil, remnants of a septic /wastewater system (concrete pit) were discovered. Post-excavation soil samples were collected in the concrete pit area and analyzed for total petroleum hydrocarbons (TPHC) only. The soil samples collected in the concrete pit area were not analyzed for the full, required list of analytical parameters [Priority Pollutants (PP+40) list required for unknown wastewater systems].

Between August 12, 1994 and February 20, 2002, additional excavation events were conducted. TPHC concentrations for all post-excavation soil samples collected on February 20, 2002 were determined to be in compliance with NJDEP soil standards that were in effect at the time.

On August 11, 1995, monitoring wells 482MW01 and 482MW02 were installed in the vicinity of the UST excavation area. Between 1995 and 1998, groundwater samples were collected from monitoring wells 482MW1 and 482MW02 and analyzed for volatile organic compounds (VOCs)+15 and semi-volatile organic compounds (SVOCs)+15. All groundwater analytical results were determined to be in compliance with the NJDEP Ground Water Quality Standards (GWQS).

In March 2002, no further action (NFA) for NJDEP case #94-8-11-1345-43 was requested in a *UST Closure and Site Investigation Report*. On January 10, 2003, NFA was approved by the NJDEP.

Purpose

To determine if the former septic/wastewater system discovered during UST excavation activities impacted soil and groundwater in the vicinity of building 482.

Scope of Work

Advance three soil borings (482SB-1, 482SB-2, 483SB-3) to the groundwater table (approximately 5 feet below grade). Scan the soil column collected in each acetate sleeve with a photoionization detector (PID). Collect a single soil sample within six inches of the groundwater table (soil-water interface) from each soil boring. If elevated PID readings are encountered at a shallower depth, collect a soil sample at that location, in addition to the soil sample collected within six inches of the groundwater table. Submit soil samples to Fort Monmouth laboratory for PP+40 analysis.

Convert soil boring 482SB-1 into a temporary well point and collect a groundwater sample. Submit groundwater sample to Fort Monmouth laboratory for PP+40 analysis.

Results

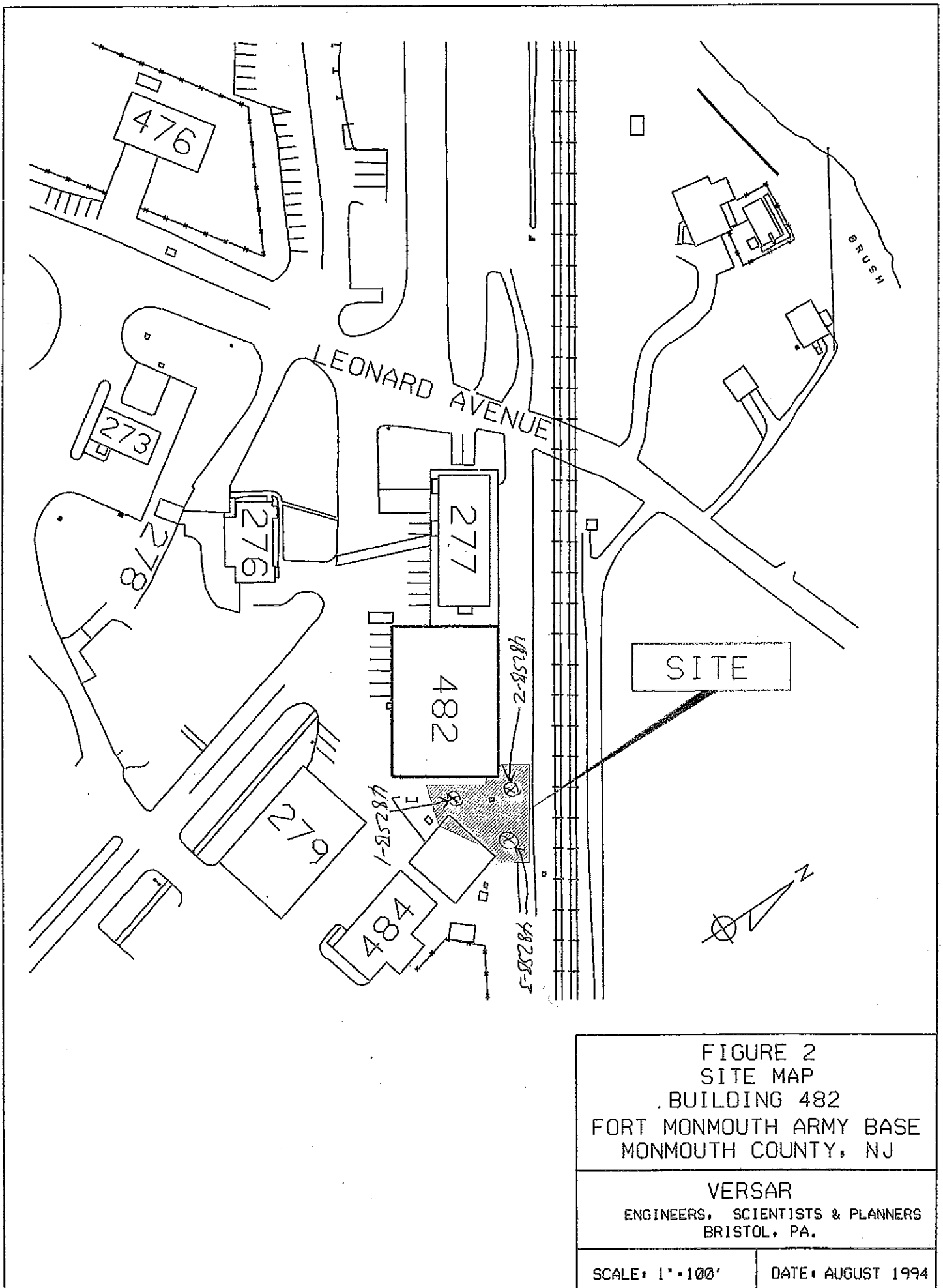
BN +15
TAL Metals
VOC +15

Acid extractable +10
1 - Liter

Recommendations

{solid & 802 Tars}
{Methonal
Trip

48 4 - 1 liter amber
1 500 + acids (Metals)
3 VOC
Trip
Field Blank



9.18.98

484/482

Friday

Collect post excavation soil samples from the edge of 484 Excavation (484-12 and 484-13) see diagram on pages 20-21.

Collect post excavation soil samples from the bottom of the former septic tank (concrete) (482a-septic and 482b-septic) see diagram on pgs 20-21.

Collect post excavation soil samples from within the 482 Excavation (482-9 through 482-15) see diagram on pgs 20-21.

See next page for all COC info for these sampling points, etc.

2⁰⁰ leave site for Bristol office

9.18.98

484/482

Friday

25

COC INFO

TIME	Vol#	#Jars	H-MY
484-12 (6')	075	3	
484-13 (6')	076	3	
→ Highest TPH results gets full scan			
482a-septic (7')	077	3	
482b-septic (7')	078	3	
→ Full scan on everything			
482-9 (6')	—	1	
482-10 (6')	—	1	
482-11 (7')	—	1	
482-12 (7')	—	1	
482-13 (6')	079	2	
482-14 (6')	080	2	
482-15 (6')	081	2	
Note: 482-15 is a duplicate of sample 482-14			
→ TPH results over 1,000 ppm gets ratio scan			

9-25-78 482

Friday

COC INFO

H-119 TPH/10110

482-22(6') 12:30 40

482-23(6') 12:35 40



* 482-23 is a duplicate
of 482-22.

See pages 29 for
location of this sample.

S.H.S.

9-28-78

277

M

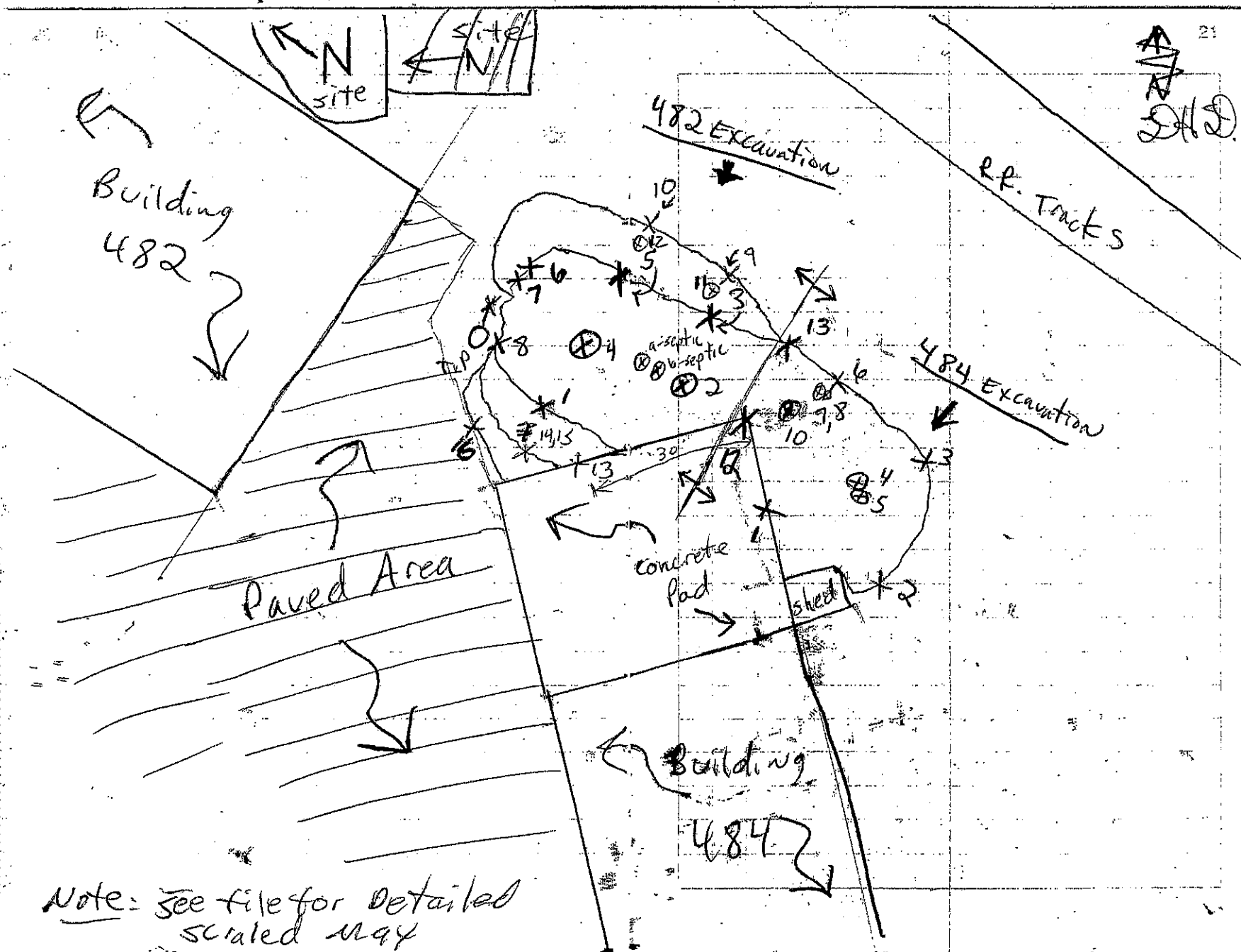
Objective: Remediation of soil
at Building 277 associated
with a former leaking No. 2 Fuel
oil UST. (UST pulled by:

Weather: Partly Sunny, 65-75
Staff: DD, TK & MS

Remediation activities along
the building and the parking area.
The clean overburden soil
hailed to our clean pile up
area behind the trailers. The
1 1/2" stones in the former
hole is excavated and hauled
our clean staging area. All
contaminated soil is hauled -
490 Staging area.

After a few truck loads of
contaminated soil is hauled
I prepare to collect soil
samples from the west side of
see next page for locations of
277-7 and 277-9.

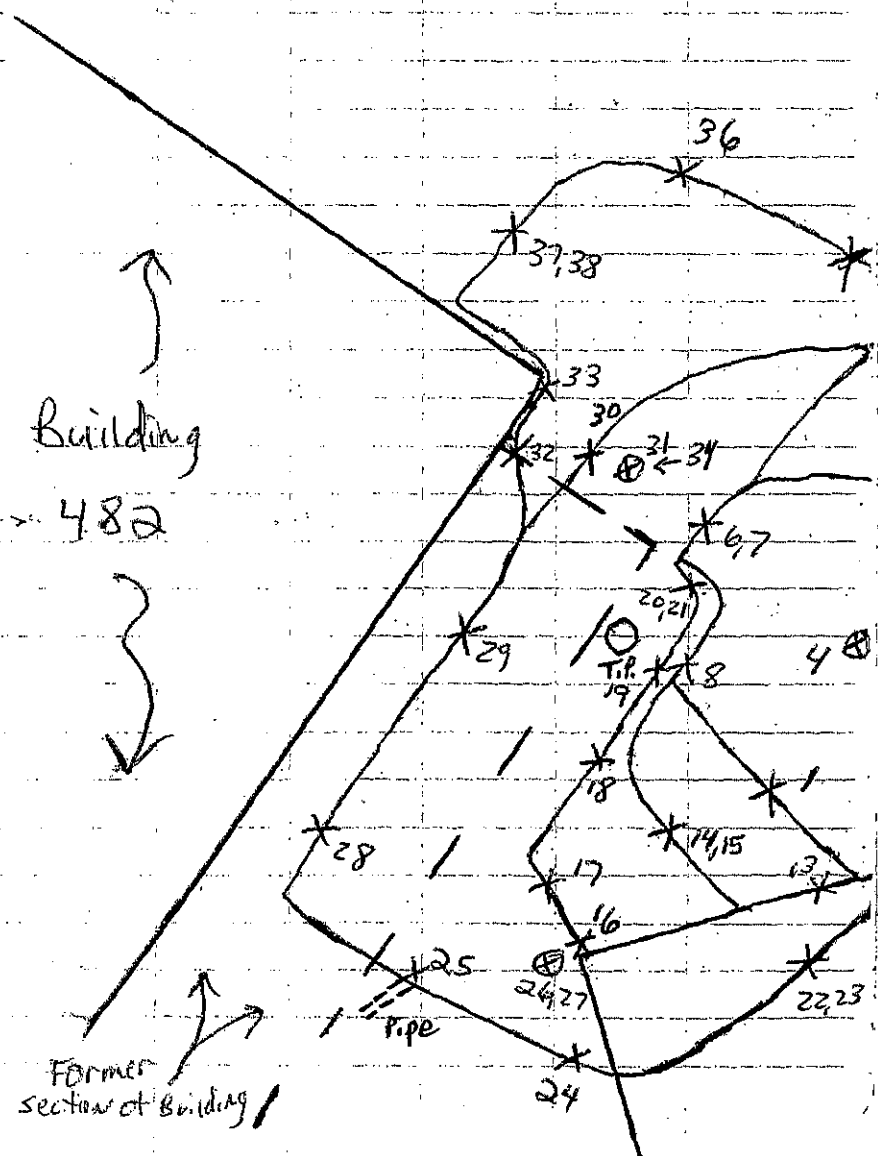
7118198



10.6.98

482
Diagram

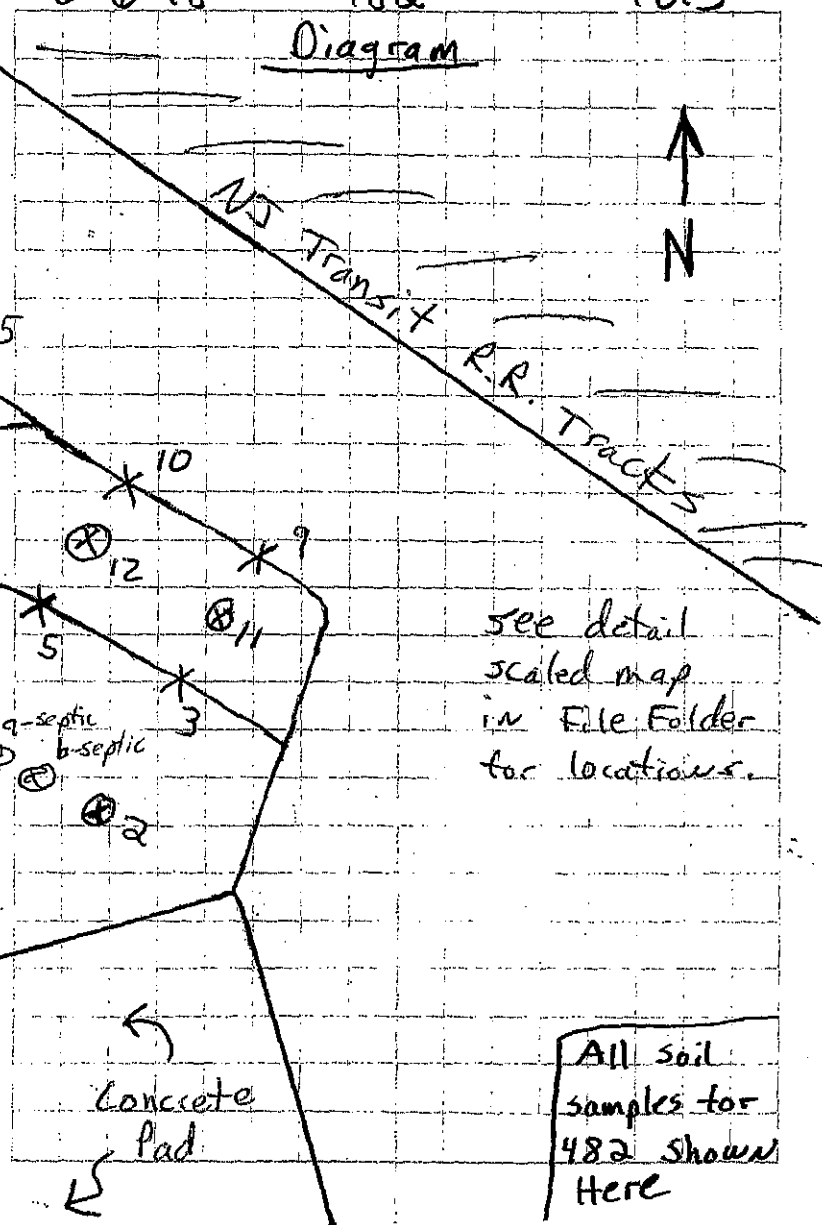
TUES



10.6.98

482
Diagram

TUES



see detail
scaled map
in File Folder
for locations.

All soil
samples for
482 shown
Here

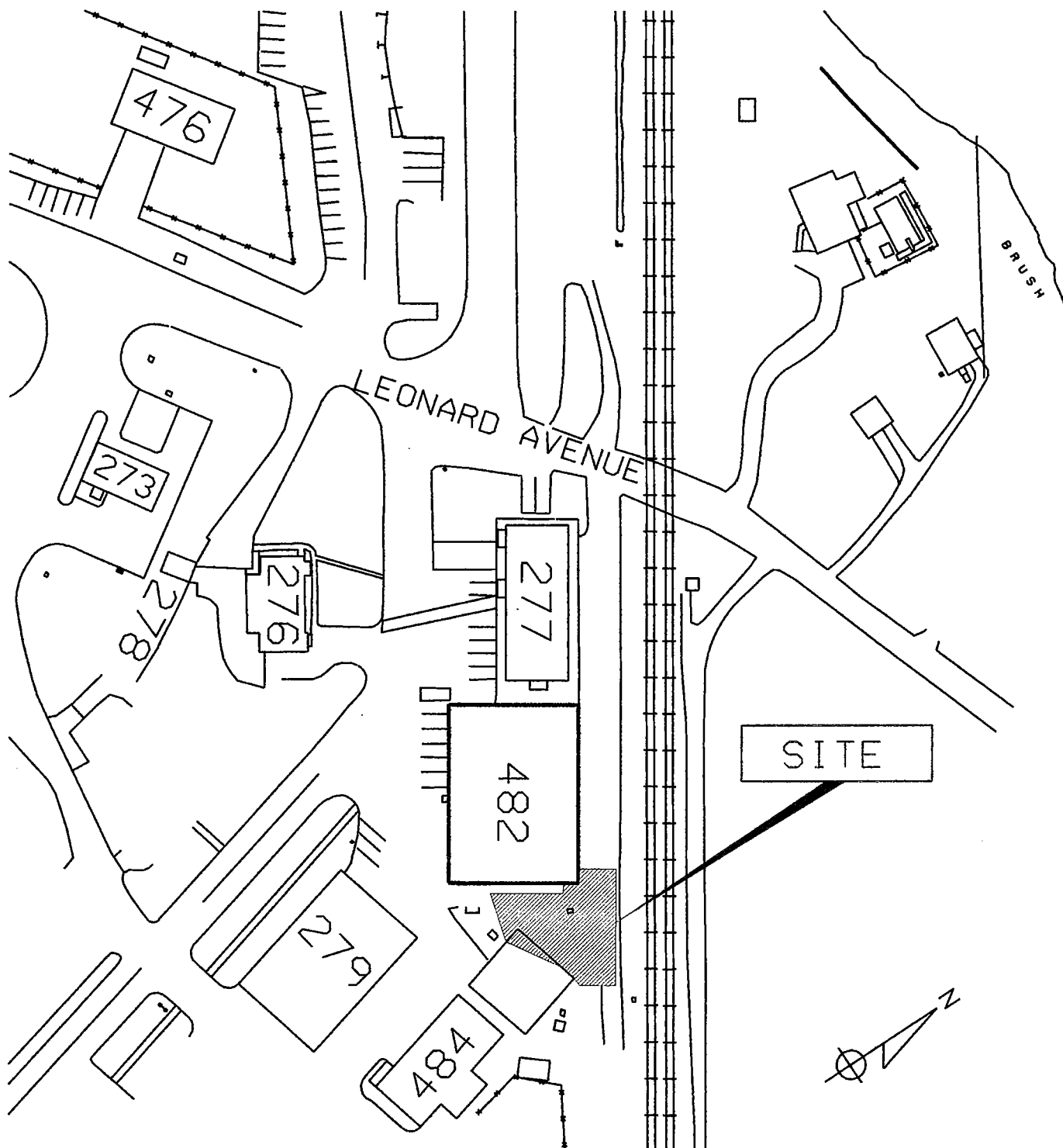
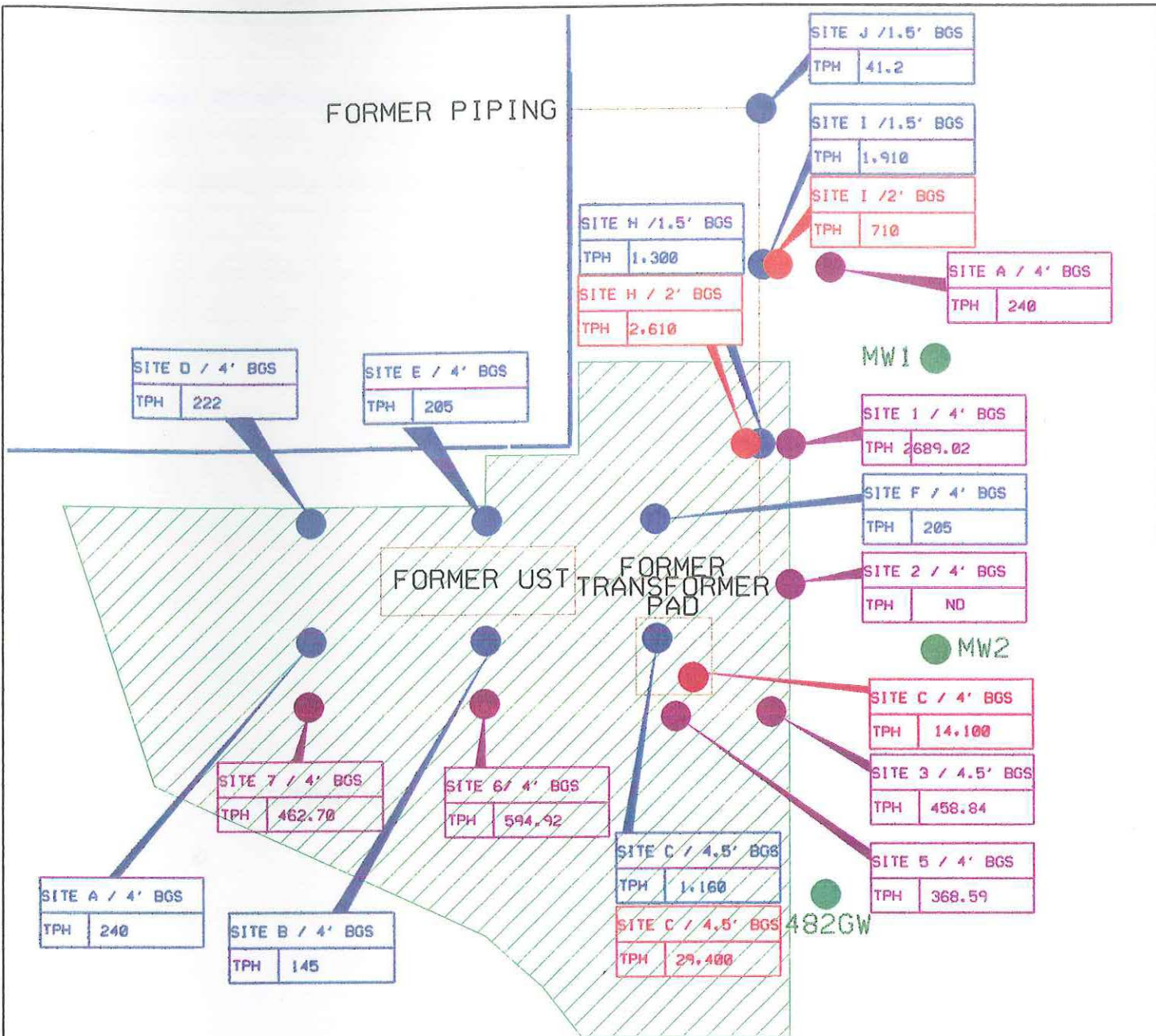


FIGURE 2
SITE MAP
BUILDING 482
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=100'

DATE: AUGUST 1994



LEGEND

- SOIL SAMPLE LOCATION (AUG 12, 1994)
- SOIL SAMPLE LOCATION (AUG 26, 1994)
- SOIL SAMPLE LOCATION (SEP 6, 1994)
- SOIL SAMPLE LOCATION (FEB 20, 2002)
- MONITORING WELL LOCATION
- ▨ LIMIT OF EXCAVATION (JULY 7, 1994)

NOTES:

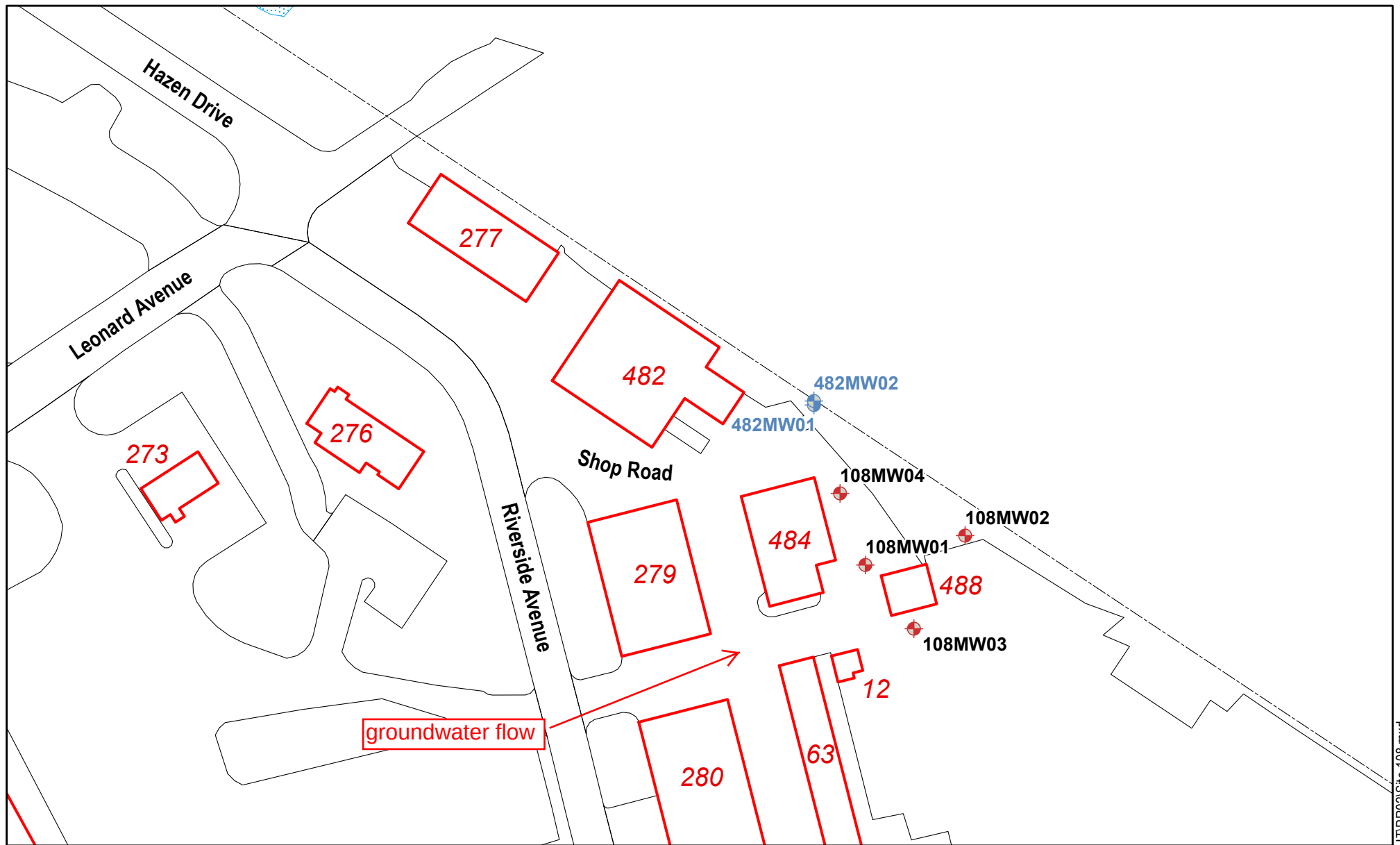
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS = BELOW GROUND SURFACE

FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 482
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10'

DATE: MARCH 2002



0 50 100 200 Feet

NAD 83, NJ State Plane Feet

FTMM-57 Main Post Fort Monmouth, New Jersey

Map Created by:
Fort Monmouth Installation GIO, Environmental Division
Fort Monmouth, New Jersey
Date: March 22, 2010

Legend

- | | | |
|-----------------------------|-------------------|----------------------|
| Monitoring Well - Abandoned | Sparge Point | Existing Structure |
| Monitoring Well - Active | Vapor Point | Demolished Structure |
| Recovery Well | Irrigation Well | Landfill Area |
| Soil Vapor Extraction Point | Roadway & Parking | Water Body |
| | Post Boundary | |

All features in the legend may not appear in the map.

ATTACHMENT O, Enclosure 2

UST 482 – Analytical Data Reports (10372, 10373, and 11264)

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-6224 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461



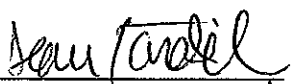
ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

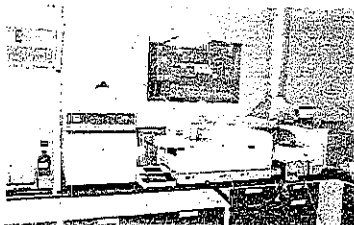
Bldg. 482

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	1037201	Methanol	31-Aug-10 10:35	08/31/10
482/SB-1 (5.0-5.5)	1037202	Soil	31-Aug-10 10:35	08/31/10

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, ABN+25, PESTICIDES, PCB's
PP METALS, %SOLIDS

ACCUTEST LABORATORIES
TOTAL CYANIDE


Dean Tardiff/Date: 10/24/10
Laboratory Manager



Fort Monmouth Environmental Testing Laboratory

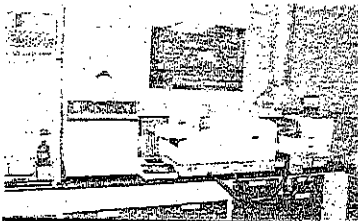
Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-6352 Fax (732)532-6263 EMail:dean.tardiff@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-6263 EMail:dean.tardiff@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File **VA7364.D**
 Operator **ROBERTS**
 Date Acquired **2 Sep 2010 10:36 pm**

Sample Name **1037201**
 Field ID **TRIP BLANK**
 Sample Multiplier **0.100**

Sample Weight **10.00 g**
 Percent Solids **100.0 %**
 Methanol extract volume **25 ml**
 Methanol aliquot volume **1.25 ml**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (mg/kg)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	0.5	0.436 mg/kg	0.500 mg/kg	
107131	Acrylonitrile			not detected	0.9	0.215 mg/kg	0.500 mg/kg	
75650	tert-Butyl alcohol			not detected	1400	0.411 mg/kg	0.500 mg/kg	
1634044	Methyl-tert-Butyl ether			not detected	110	0.032 mg/kg	0.050 mg/kg	
108203	Di-isopropyl ether			not detected	NLE	0.038 mg/kg	0.050 mg/kg	
75718	Dichlorodifluoromethane			not detected	490	0.104 mg/kg	0.050 mg/kg	
74-87-3	Chloromethane			not detected	4	0.043 mg/kg	0.050 mg/kg	
75-01-4	Vinyl Chloride			not detected	0.7	0.050 mg/kg	0.050 mg/kg	
74-83-9	Bromomethane			not detected	25	0.052 mg/kg	0.050 mg/kg	
75-00-3	Chloroethane			not detected	220	0.044 mg/kg	0.050 mg/kg	
75-69-4	Trichlorofluoromethane			not detected	23000	0.085 mg/kg	0.050 mg/kg	
75-35-4	1,1-Dichloroethene			not detected	11	0.077 mg/kg	0.050 mg/kg	
67-64-1	Acetone			not detected	70000	0.082 mg/kg	0.050 mg/kg	
75-15-0	Carbon Disulfide			not detected	7800	0.068 mg/kg	0.050 mg/kg	
75-09-2	Methylene Chloride			not detected	34	0.065 mg/kg	0.050 mg/kg	
156-60-5	trans-1,2-Dichloroethene			not detected	300	0.059 mg/kg	0.050 mg/kg	
75-35-3	1,1-Dichloroethane			not detected	8	0.058 mg/kg	0.050 mg/kg	
108-05-4	Vinyl Acetate			not detected	NLE	0.033 mg/kg	0.100 mg/kg	
78-93-3	2-Butanone			not detected	3100	0.071 mg/kg	0.050 mg/kg	
156-59-2	cis-1,2-Dichloroethene			not detected	230	0.058 mg/kg	0.050 mg/kg	
67-66-3	Chloroform			not detected	0.6	0.074 mg/kg	0.050 mg/kg	
75-55-6	1,1,1-Trichloroethane			not detected	290	0.063 mg/kg	0.050 mg/kg	
56-23-5	Carbon Tetrachloride			not detected	0.6	0.062 mg/kg	0.050 mg/kg	
71-43-2	Benzene			not detected	2	0.057 mg/kg	0.050 mg/kg	
107-06-2	1,2-Dichloroethane			not detected	0.9	0.045 mg/kg	0.050 mg/kg	
79-01-6	Trichloroethene			not detected	7	0.054 mg/kg	0.050 mg/kg	
78-87-5	1,2-Dichloropropane			not detected	2	0.058 mg/kg	0.050 mg/kg	
75-27-4	Bromodichloromethane			not detected	1	0.048 mg/kg	0.050 mg/kg	
110-75-8	2-Chloroethyl vinyl ether			not detected	NLE	0.061 mg/kg	0.100 mg/kg	
10061-01-5	cis-1,3-Dichloropropene			not detected	2	0.038 mg/kg	0.050 mg/kg	
108-10-1	4-Methyl-2-Pentanone			not detected	NLE	0.054 mg/kg	0.100 mg/kg	
108-88-3	Toluene			not detected	6300	0.071 mg/kg	0.050 mg/kg	
10061-02-6	trans-1,3-Dichloropropene			not detected	2	0.045 mg/kg	0.050 mg/kg	
79-00-5	1,1,2-Trichloroethane			not detected	2	0.051 mg/kg	0.050 mg/kg	
127-18-4	Tetrachloroethene			not detected	2	0.066 mg/kg	0.050 mg/kg	
591-78-6	2-Hexanone			not detected	NLE	0.047 mg/kg	0.100 mg/kg	
126-48-1	Dibromochloromethane			not detected	3.0	0.046 mg/kg	0.050 mg/kg	
108-90-7	Chlorobenzene			not detected	510	0.065 mg/kg	0.050 mg/kg	
100-41-4	Ethylbenzene			not detected	7800	0.069 mg/kg	0.050 mg/kg	
630-20-6	1,1,1,2-tetrachloroethane			not detected	NLE	0.070 mg/kg	0.050 mg/kg	
1330-20-7	m+p-Xylenes			not detected	1200	0.131 mg/kg	0.100 mg/kg	
1330-20-7	o-Xylene			not detected	1200	0.062 mg/kg	0.050 mg/kg	
100-42-5	Styrene			not detected	90	0.054 mg/kg	0.050 mg/kg	
75-25-2	Bromoform			not detected	81	0.040 mg/kg	0.050 mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.054 mg/kg	0.050 mg/kg	
541-73-1	1,3-Dichlorobenzene			not detected	5300	0.058 mg/kg	0.050 mg/kg	
106-46-7	1,4-Dichlorobenzene			not detected	5	0.056 mg/kg	0.050 mg/kg	
95-50-1	1,2-Dichlorobenzene			not detected	5300	0.059 mg/kg	0.050 mg/kg	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J= Estimated value, concentration lies between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

TRIP BLANK

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: MW Location: _____ SDG No.: 10372
Matrix: (soil/water) SOIL Lab Sample ID: 1037201
Sample wt/vol: 10.0 (g/ml) G Lab File ID: VA7364.D
Level: (low/med) MED Date Received: 8/31/2010
% Moisture: not dec. 0 Date Analyzed: 9/2/2010
GC Column: Rtx-VMS ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File **VA7365.D**
 Operator **ROBERTS**
 Date Acquired **2 Sep 2010 11:07 pm**

Sample Name **1037202**
 Field ID **482 SB-1 (5-5.5')**
 Sample Multiplier **0.128**

Sample Weight **9.39 g**
 Percent Solids **83.1 %**
 Methanol extract volume **25 ml**
 Methanol aliquot volume **1.25 ml**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (mg/kg)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	0.5	0.559 mg/kg	0.641 mg/kg	
107131	Acrylonitrile			not detected	0.9	0.276 mg/kg	0.641 mg/kg	
75650	tert-Butyl alcohol			not detected	1400	0.527 mg/kg	0.641 mg/kg	
1634044	Methyl-tert-Butyl ether			not detected	110	0.041 mg/kg	0.064 mg/kg	
108203	Di-isopropyl ether			not detected	NLE	0.049 mg/kg	0.064 mg/kg	
75718	Dichlorodifluoromethane			not detected	490	0.133 mg/kg	0.064 mg/kg	
74-87-3	Chloromethane			not detected	4	0.055 mg/kg	0.064 mg/kg	
75-01-4	Vinyl Chloride			not detected	0.7	0.064 mg/kg	0.064 mg/kg	
74-83-9	Bromomethane			not detected	25	0.067 mg/kg	0.064 mg/kg	
75-00-3	Chloroethane			not detected	220	0.056 mg/kg	0.064 mg/kg	
75-69-4	Trichlorofluoromethane			not detected	23000	0.109 mg/kg	0.064 mg/kg	
75-35-4	1,1-Dichloroethene			not detected	11	0.099 mg/kg	0.064 mg/kg	
67-64-1	Acetone			not detected	70000	0.105 mg/kg	0.064 mg/kg	
75-15-0	Carbon Disulfide			not detected	7800	0.087 mg/kg	0.064 mg/kg	
75-09-2	Methylene Chloride			not detected	34	0.083 mg/kg	0.064 mg/kg	
156-60-5	trans-1,2-Dichloroethene			not detected	300	0.076 mg/kg	0.064 mg/kg	
75-35-3	1,1-Dichloroethane			not detected	8	0.074 mg/kg	0.064 mg/kg	
108-05-4	Vinyl Acetate			not detected	NLE	0.042 mg/kg	0.128 mg/kg	
78-93-3	2-Butanone			not detected	3100	0.091 mg/kg	0.064 mg/kg	
156-59-2	cis-1,2-Dichloroethene			not detected	230	0.074 mg/kg	0.064 mg/kg	
67-66-3	Chloroform			not detected	0.6	0.095 mg/kg	0.064 mg/kg	
75-55-6	1,1,1-Trichloroethane			not detected	290	0.081 mg/kg	0.064 mg/kg	
56-23-5	Carbon Tetrachloride			not detected	0.6	0.079 mg/kg	0.064 mg/kg	
71-43-2	Benzene			not detected	2	0.073 mg/kg	0.064 mg/kg	
107-06-2	1,2-Dichloroethane			not detected	0.9	0.058 mg/kg	0.064 mg/kg	
79-01-6	Trichloroethene			not detected	7	0.069 mg/kg	0.064 mg/kg	
78-87-5	1,2-Dichloropropane			not detected	2	0.074 mg/kg	0.064 mg/kg	
75-27-4	Bromodichloromethane			not detected	1	0.062 mg/kg	0.064 mg/kg	
110-75-8	2-Chloroethyl vinyl ether			not detected	NLE	0.078 mg/kg	0.128 mg/kg	
10061-01-5	cis-1,3-Dichloropropene			not detected	2	0.049 mg/kg	0.064 mg/kg	
108-10-1	4-Methyl-2-Pentanone			not detected	NLE	0.069 mg/kg	0.128 mg/kg	
108-88-3	Toluene			not detected	6300	0.091 mg/kg	0.064 mg/kg	
10061-02-6	trans-1,3-Dichloropropene			not detected	2	0.058 mg/kg	0.064 mg/kg	
79-00-5	1,1,2-Trichloroethane			not detected	2	0.065 mg/kg	0.064 mg/kg	
127-18-4	Tetrachloroethene			not detected	2	0.085 mg/kg	0.064 mg/kg	
591-78-6	2-Hexanone			not detected	NLE	0.060 mg/kg	0.128 mg/kg	
126-48-1	Dibromochloromethane			not detected	3.0	0.059 mg/kg	0.064 mg/kg	
108-90-7	Chlorobenzene			not detected	510	0.083 mg/kg	0.064 mg/kg	
100-41-4	Ethylbenzene			not detected	7800	0.088 mg/kg	0.064 mg/kg	
630-20-6	1,1,1,2-tetrachloroethane			not detected	NLE	0.090 mg/kg	0.064 mg/kg	
1330-20-7	m+p-Xylenes			not detected	1200	0.168 mg/kg	0.128 mg/kg	
1330-20-7	o-Xylene			not detected	1200	0.079 mg/kg	0.064 mg/kg	
100-42-5	Styrene			not detected	90	0.069 mg/kg	0.064 mg/kg	
75-25-2	Bromoform			not detected	81	0.051 mg/kg	0.064 mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.069 mg/kg	0.064 mg/kg	
541-73-1	1,3-Dichlorobenzene			not detected	5300	0.074 mg/kg	0.064 mg/kg	
106-46-7	1,4-Dichlorobenzene			not detected	5	0.072 mg/kg	0.064 mg/kg	
95-50-1	1,2-Dichlorobenzene			not detected	5300	0.076 mg/kg	0.064 mg/kg	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated value, concentration lies between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

482 SB-1 (5-5.5')

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: MW Location: _____ SDG No.: 10372
Matrix: (soil/water) SOIL Lab Sample ID: 1037202
Sample wt/vol: 9.4 (g/ml) G Lab File ID: VA7365.D
Level: (low/med) MED Date Received: 8/31/2010
% Moisture: not dec. 16.9 Date Analyzed: 9/2/2010
GC Column: Rtx-VMS ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name E497.D
Operator ROBERTS
Date Acquired 5-Oct-10
Sample Name 10372 02

Misc Info 482 SB-1 (5-5.5') Sample Weight 10.10 g
Dilution factor 1 Percent Solids 83.1 %
Sample Multiplier 0.119
Sample multiplier = (0.001 * Dilution factor) / ([sample weight(kg)] * [percent solids/100])
Multiplied by 0.001 to convert ug/kg to mg/kg.

CAS#	Name	R.T.	Response	Result	MDL	RL	Qualifiers
110-86-1	pyridine			not detected	0.118	0.60 mg/kg	
62-75-9	N-nitroso-dimethylamine			not detected	0.200	0.60 mg/kg	
62-53-3	Aniline			not detected	0.318	0.60 mg/kg	
108-95-2	Phenol			not detected	0.295	0.60 mg/kg	
111-44-4	bis-2-chloroethyl ether			not detected	0.230	0.60 mg/kg	
95-57-8	2-chlorophenol			not detected	0.278	0.60 mg/kg	
541-73-1	1,3-dichlorobenzene			not detected	0.199	0.60 mg/kg	
106-46-7	1,4-dichlorobenzene			not detected	0.207	0.60 mg/kg	
100-51-6	Benzyl alcohol			not detected	0.307	0.60 mg/kg	
95-50-1	1,2-dichlorobenzene			not detected	0.231	0.60 mg/kg	
95-48-7	2-methylphenol			not detected	0.328	0.60 mg/kg	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	0.267	0.60 mg/kg	
106-44-5	4-methylphenol			not detected	0.367	0.60 mg/kg	
621-64-7	N-nitroso-di-n-propylamine			not detected	0.301	0.60 mg/kg	
67-72-1	Hexachloroethane			not detected	0.225	0.60 mg/kg	
98-95-3	Nitrobenzene			not detected	0.269	0.60 mg/kg	
78-59-1	Isophorone			not detected	0.286	0.60 mg/kg	
88-75-5	2-nitrophenol			not detected	0.267	0.60 mg/kg	
105-67-9	2,4-dimethylphenol			not detected	0.304	0.60 mg/kg	
111-91-1	bis(2-chloroethoxy)methane			not detected	0.236	0.60 mg/kg	
120-83-2	2,4-dichlorophenol			not detected	0.300	0.60 mg/kg	
65-85-0	Benzoic acid			not detected	0.247	0.60 mg/kg	
120-82-1	1,2,4-trichlorobenzene			not detected	0.261	0.60 mg/kg	
91-20-3	Naphthalene			not detected	0.288	0.60 mg/kg	
106-47-8	4-chloroaniline			not detected	0.441	0.60 mg/kg	
87-68-3	Hexachlorobutadiene			not detected	0.257	0.60 mg/kg	
59-50-7	4-chloro-3-methylphenol			not detected	0.324	0.60 mg/kg	
91-57-6	2-methylnaphthalene	11.82	15671565	11.35 detected	0.310	0.60 mg/kg	
77-47-4	Hexachlorocyclopentadiene			not detected	0.174	0.60 mg/kg	
88-06-2	2,4,6-trichlorophenol			not detected	0.331	0.60 mg/kg	
95-95-4	2,4,5-trichlorophenol			not detected	0.344	0.60 mg/kg	
91-58-7	2-chloronaphthalene			not detected	0.299	0.60 mg/kg	
88-74-4	2-nitroaniline			not detected	0.366	0.60 mg/kg	
131-11-3	Dimethylphthalate			not detected	0.315	0.60 mg/kg	
208-96-8	Acenaphthylene			not detected	0.324	0.60 mg/kg	
606-20-2	2,6-dinitrotoluene			not detected	0.311	0.60 mg/kg	
99-09-2	3-nitroaniline			not detected	0.263	0.60 mg/kg	
83-32-9	Acenaphthene			not detected	0.323	0.60 mg/kg	
51-28-5	2,4-dinitrophenol			not detected	0.207	0.60 mg/kg	
132-64-9	Dibenzofuran			not detected	0.380	0.60 mg/kg	
100-02-07	4-nitrophenol			not detected	0.293	0.60 mg/kg	

000026

Semi-Volatile Analysis Report

Page 2

Data File Name E497.D
 Operator ROBERTS
 Date Acquired 5-Oct-10
 Sample Name 10372 02

Misc Info 482 SB-1 (5-5.5') Sample Weight 10.10 g
 Dilution factor 1 Percent Solids 83.1 %
 Sample Multiplier 0.119
*Sample multiplier = (0.001 * Dilution factor) / ([sample weight(kg)] * [percent solids])
 Multiplied by 0.001 to convert ug/kg to mg/kg.*

CAS#	Name	R.T.	Response	Result	RL	Qualifiers
121-14-2	2,4-dinitrotoluene			not detected	0.311 0.60	mg/kg
84-66-2	Diethylphthalate			not detected	0.298 0.60	mg/kg
86-73-7	Fluorene			not detected	0.337 0.60	mg/kg
7005-72-3	4-chlorophenyl-phenylether			not detected	0.331 0.60	mg/kg
100-01-6	4-nitroaniline			not detected	0.325 0.60	mg/kg
534-52-1	4,6-dinitro-2-methylphenol			not detected	0.287 1.19	mg/kg
86-30-6	N-nitrosodiphenylamine			not detected	0.323 0.60	mg/kg
103-33-3	Azobenzene			not detected	0.342 0.60	mg/kg
101-55-3	4-bromophenyl-phenylether			not detected	0.343 0.60	mg/kg
118-74-1	Hexachlorobenzene			not detected	0.357 0.60	mg/kg
87-86-5	Pentachlorophenol			not detected	0.343 0.60	mg/kg
85-01-8	Phenanthrene			not detected	0.354 0.60	mg/kg
120-12-7	Anthracene			not detected	0.356 0.60	mg/kg
84-74-2	Di-n-butylphthalate			not detected	0.341 0.60	mg/kg
206-44-0	Fluoranthene			not detected	0.354 0.60	mg/kg
92-87-5	Benzidine			not detected	0.321 0.60	mg/kg
129-00-0	Pyrene			not detected	0.378 0.60	mg/kg
85-68-7	Butylbenzylphthalate			not detected	0.313 0.60	mg/kg
56-55-3	Benzo[a]anthracene			not detected	0.355 0.60	mg/kg
91-94-1	3,3'-dichlorobenzidine			not detected	0.324 0.60	mg/kg
218-01-9	Chrysene			not detected	0.335 0.60	mg/kg
117-81-7	bis(2-ethylhexyl)phthalate			not detected	0.376 0.60	mg/kg
117-84-0	Di-n-octylphthalate			not detected	0.316 0.60	mg/kg
205-99-2	Benzo[b]fluoranthene			not detected	0.255 0.60	mg/kg
207-08-9	Benzo[k]fluoranthene			not detected	0.306 0.60	mg/kg
50-32-8	Benzo[a]pyrene			not detected	0.274 0.60	mg/kg
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.232 0.60	mg/kg
53-70-3	Dibenz[a,h]anthracene			not detected	0.217 0.60	mg/kg
191-24-2	Benzo[g,h,i]perylene			not detected	0.220 0.60	mg/kg

* Higher of PQL's and Interim Criteria as per NJAC 7:9-6.9(c).

Qualifiers

E= Value Exceeds Linear Range

D= Value from dilution

B= Compound in Related Blank

RL= Reporting Limit. The values between the MDL and RL are considered estimated.

J= Estimated concentration, value lies between RL and MDL

MDL= Method Detection Limit

NLE= No Limit Established

R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id:

482 SB-1 (5-5.5')

Lab Name: FMETL Lab Code 13461

Project: _____ Case No.: _____ Location: _____ SDG No.: 10372

Matrix: (soil/water) SOIL Lab Sample ID: 1037202

Sample wt/vol: 10.1 (g/ml) G Lab File ID: E497.D

Level: (low/med) LOW Date Received: 8/31/2010

% Moisture: 16.9 decanted: (Y/N) N Date Extracted: 9/10/2010

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/2010

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 25 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	extraction by-product	6.77	29000	J
2. 000091-17-8	Naphthalene, decahydro-	9.53	4100	JN
3.	Alkane: Cyclic	9.86	4000	J
4.	Alkane: Cyclic	11.20	4100	J
5. 000090-12-0	Naphthalene, 1-methyl-	11.96	4400	JN
6.	Alkane: Cyclic	12.09	4000	J
7.	Alkane: Branched	12.26	5900	J
8.	unknown hydrocarbon	12.47	4700	J
9.	1H-Indene-dihydro-trimethyl	12.57	4500	J
10.	Naphthalene, ethyl-	12.63	4300	J
11.	Naphthalene, dimethyl-	12.74	6900	J
12.	Naphthalene, dimethyl-	12.85	6500	J
13.	Alkane: Straight-Chain	12.93	6900	J
14.	Naphthalene, dimethyl-	13.02	4600	J
15.	Alkane: Branched	13.16	4100	J
16.	unknown hydrocarbon	13.23	4900	J
17.	Naphthalene, trimethyl-	13.63	4600	J
18.	Naphthalene, trimethyl-	13.69	6000	J
19.	Naphthalene, trimethyl-	13.85	4000	J
20.	Naphthalene, trimethyl-	13.95	5200	J
21.	Alkane: Branched	14.03	5100	J
22.	unknown hydrocarbon	14.14	6000	J
23.	Alkane: Straight-Chain	14.28	7700	J
24.	Alkane: Branched	14.68	5800	J
25.	Alkane: Branched	17.92	4200	J

Ft. Monmouth Environmental Laboratory

173 Riverside Ave.
Ft. Monmouth, NJ 07703

Client: US Army
Project Name: Bldg 482
Field ID: 482SB-1 (5-5.5')
Lab ID: 10372-02
Filename: 09131023.D
Lab Project: 10372

Location: Bldg 482
MATRIX: Soil
Ext. Batch: PP09101001
Date Extracted: 9/10/2010
Date Analyzed: 9/13/2010
Dilution: 1
Analyst: CR

CAS #	COMPOUNDS	RESULTS	Reporting Limit	Soil Remediation	Qualifier	MDL
		(mg/kg)	(mg/kg)	Standard (mg/kg)**		(mg/kg)
319-84-6	alpha-BHC	ND	0.0241	0.1		0.0008
319-85-7	beta-BHC	ND	0.0241	0.4		0.0011
58-89-9	gamma-BHC	ND	0.0241	0.4		0.0007
319-86-8	delta-BHC	ND	0.0241	NLE		0.0006
76-44-8	Heptachlor	ND	0.0241	0.1		0.0102
309-00-2	Aldrin	ND	0.0241	0.04		0.0024
1024-57-3	Heptachlor epoxide	ND	0.0241	0.07		0.0010
5103-74-2	gamma-Chlordane	ND	0.0241	NLE		0.0017
5103-71-9	alpha-Chlordane	ND	0.0241	NLE		0.0016
959-98-8	Endosulfan I	ND	0.0241	470		0.0019
72-55-9	4,4'-DDE	ND	0.0241	2		0.0020
60-57-1	Dieldrin	ND	0.0241	0.04		0.0020
72-20-8	Endrin	ND	0.0241	23		0.0007
33213-65-9	Endosulfan II	ND	0.0241	470		0.0006
72-54-8	4,4'-DDD	ND	0.0241	3		0.0007
7421-93-4	Endrin aldehyde	ND	0.0241	NLE		0.0007
50-29-3	4,4'-DDT	ND	0.0241	2		0.0012
1031-07-8	Endosulfan sulfate	ND	0.0241	470		0.0006
53494-70-5	Endrin ketone	ND	0.0241	NLE		0.0007
72-43-5	Methoxychlor	ND	0.0241	390		0.0008
8001-35-2	Toxaphene	ND	0.0602	0.6		0.0285
57-74-9	Total Chlordane	ND	0.0602	0.2		0.0144

MDL = Method Detection Limit.

ND =Not Detected / Below MDL.

B = Present in the associated Blank.

E = Exceeded Calibration Range, Dilution to follow.

D = Dilution.

NLE = No Limit Established.

RL = Reporting Limit.

*Results between MDL and RL are estimated.

Column-Primary: Rtx-CLPesticides 30/.32mm ID/.25um.

Column-Confirmation: Rtx-CLPesticides2 30m/.32mm ID/.5um.

% Solids 83.1
Initial Mass (g) 10.13
Final Vol.(ml) 10

**Residential Direct Contact Soil Remediation Standard as per N.J.A.C. 7:26D

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Ft. Monmouth Environmental Laboratory

173 Riverside Ave.
Ft. Monmouth, NJ 07703

Client: US Army
Project Name: Bldg 482
Field ID: 482SB-1 (5-5.5')
Lab ID: 10372-02
Filename: 10051018.D
Lab Project: 10372

Location: Bldg 482
MATRIX: Soil
Ext. Batch: PP09101001
Date Extracted: 9/10/2010
Date Analyzed: 10/25/2010
Dilution: 1
Analyst: CR

CAS #	COMPOUNDS	RESULTS	Reporting Limit	Qualifier	MDL
		(mg/kg)	(mg/kg)		(mg/kg)
12674-11-2	Arochlor 1016	ND	0.060		0.0265
11104-28-2	Arochlor 1221	ND	0.060		0.0168
11141-16-5	Arochlor 1232	ND	0.060		0.0132
53469-21-9	Arochlor 1242	ND	0.060		0.0072
12672-29-6	Arochlor 1248	ND	0.060		0.0349
11097-69-1	Arochlor 1254	ND	0.060		0.0193
11096-82-5	Arochlor 1260	ND	0.060		0.0301

MDL = Method Detection Limit.

ND =Not Detected / Below MDL.

B = Present in the associated Blank.

E = Exceeded Calibration Range, Dilution to follow.

D = Dilution.

NLE = No Limit Established.

RL = Reporting Limit.

PQL = Practical Quantitation Limit.

% Solids 83.1

Initial Mass (g) 10.13

Final Vol.(ml) 10

*Results between MDL and RL are estimated.

Column-Primary: Rtx-CLPesticides 30/.32mm ID/.25um.

Column-Confirmation: Rtx-CLPesticides2 30m/.32mm ID/.5um.

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

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 173
Ft. Monmouth, NJ 07703

Lab ID #: 1037202
Sample Received: 08/31/10
Sample Matrix: Soil

Site: Bldg. 482

Field ID: 482/ SB-1 (5.0-5.5)

Method of Digestion: E.P.A SW-846, Method 3051A
Method of Analysis: EPA SW-846 Method 6010B, 7471A

PP-METALS RESULTS SUMMARY (mg/kg)

Element	Date of Analysis	Result (mg/kg)	Soil Cleanup Criteria (mg/kg)*	R.L. (mg/kg)	MDL (mg/kg)
Antimony	09/02/10	2.45	31	4.28	1.413
Arsenic	09/02/10	12.3	19	2.14	2.141
Beryllium	09/02/10	1.82	16	0.21	0.128
Cadmium	09/02/10	1.97	78	0.86	0.300
Chromium	09/02/10	149	NLE	2.14	0.557
Copper	09/02/10	8.27	3100	6.42	5.567
Lead	09/02/10	10.8	400	2.14	1.113
Mercury	09/09/10	ND	23	0.21	0.017
Nickel	09/02/10	7.94	1600	2.14	0.942
Selenium	09/02/10	ND	390	8.56	2.997
Silver	09/02/10	10.2	390	2.14	0.428
Thallium	09/02/10	ND	5	4.28	2.141
Zinc	09/02/10	49.9	23000	10.70	9.420

ND = Not Detected, NLE = No Limit Established, NA = Standard Not Available

* Residential Direct Contact Soil Remediation Standard as per N.J.A.C. 7:26D June 2, 2008

R.L. = Reporting limit, MDL = Method Detection Limit

Estimated results between MDL & R.L.

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Report of Analysis

Page 1 of 1

Client Sample ID: 1037202 482/SB-5.0-5.5'

Lab Sample ID: JA55188-1

Matrix: SO - Soil

Project: Building 482

Date Sampled: 08/31/10

Date Received: 08/31/10

Percent Solids: 83.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.26	0.26	mg/kg	1	09/04/10 14:32	NR	SW846 9012 M/LACHAT
Solids, Percent	83.6		%	1	09/08/10	AL	SM18 2540G

RL = Reporting Limit

000038

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-6224 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461



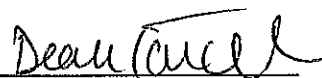
ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: UST Program

Bldg. 482

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	1037301	Aqueous	31-Aug-10 08:45	08/31/10
Field Blank	1037302	Aqueous	31-Aug-10 13:30	08/31/10
482/TMP-1	1037303	Aqueous	31-Aug-10 13:45	08/31/10

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, ABN+25, PESTICIDES, PCB's
PP METALS,

ACCUTEST LABORATORIES
TOTAL CYANIDE


Dean Tardiff/Date: 10/29/10
Laboratory Manager

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-6352 Fax (732)532-6263 EMail:dean.tardiff@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]

00002

print legibly

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File VA7376.D
 Operator ROBERTS
 Date Acquired 3 Sep 2010 5:02 pm

Sample Name 1037301
 Field ID 482 TRIP BLANK
 Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	nle	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	10	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	nle	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	1.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.12 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.24 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	1000	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.17 ug/L	1.00 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQLs and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

TRIP BLANK

Lab Name: FMETL NJDEP # 13461
Project: _____ Case No.: MW Location: _____ SDG No.: 10373
Matrix: (soil/water) WATER Lab Sample ID: 1037301
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA7376.D
Level: (low/med) LOW Date Received: 8/31/2010
% Moisture: not dec. _____ Date Analyzed: 9/3/2010
GC Column: Rtx-VMS ID: 0.25 (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 NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File VA7377.D
Operator ROBERTS
Date Acquired 3 Sep 2010 5:33 pm

Sample Name 1037302
Field ID 482 FIELD BLANK
Sample Multiplier 1

CASH	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	nle	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	10	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	nle	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	1.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.12 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.24 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	1000	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.17 ug/L	1.00 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

FIELD BLANK

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: MW Location: _____ SDG No.: 10373

Matrix: (soil/water) WATER Lab Sample ID: 1037302

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA7377.D

Level: (low/med) LOW Date Received: 8/31/2010

% Moisture: not dec. _____ Date Analyzed: 9/3/2010

GC Column: Rtx-VMS ID: 0.25 (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 NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File VA7378.D
 Operator ROBERTS
 Date Acquired 3 Sep 2010 6:04 pm

Sample Name 1037303
 Field ID 482 TMP-1
 Sample Multiplier 1

CASH	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	nle	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	10	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	nle	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	1.00 ug/L	
78-93-3	2-Butanone			not detected	300	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.12 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.24 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	1000	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.17 ug/L	1.00 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit
 J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
 NLE = No Limit Established
 R.T. = Retention Time
 R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

482 TMP-1

Lab Name: FMETL NJDEP # 13461

Project: _____ Case No.: MW Location: _____ SDG No.: 10373

Matrix: (soil/water) WATER Lab Sample ID: 1037303

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA7378.D

Level: (low/med) LOW Date Received: 8/31/2010

% Moisture: not dec. _____ Date Analyzed: 9/3/2010

GC Column: Rtx-VMS ID: 0.25 (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 NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkane: Cyclic	10.16	19	J
2.	Alkane: Cyclic	11.72	15	J
3.	C4 alkyl benzene	20.56	15	J
4. 000496-11-7	Indane	20.71	71	JN
5.	C4 alkyl benzene	21.45	44	J
6.	1H-Indene-dihydro-methyl-	21.64	18	J
7.	1H-Indene-dihydro-methyl-	21.77	51	J
8.	C4 alkyl benzene	22.27	37	J
9.	1H-Indene-dihydro-methyl-	23.01	24	J
10.	C4 alkyl benzene	23.28	70	J
11.	1H-Indene-dihydro-methyl-	23.35	67	J
12.	1H-Indene-dihydro-dimethyl-	23.89	22	J
13.	1H-Indene-dihydro-dimethyl-	24.00	14	J
14.	1H-Indene-dihydro-dimethyl-	24.16	29	J
15.	unknown hydrocarbon	25.46	16	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name E502.D
 Operator ROBERTS
 Date Acquired 5-Oct-10
 Sample Name 1037302

Misc Info FIELD BLANK
 Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	MDL	RL	Qualifiers
110-86-1	pyridine			not detected	1.56	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	3.57	5.00 ug/L	
62-53-3	Aniline			not detected	2.75	5.00 ug/L	
108-95-2	Phenol			not detected	0.81	5.00 ug/L	
111-44-4	bis(2-chloroethyl) ether			not detected	3.23	5.00 ug/L	
95-57-8	2-chlorophenol			not detected	1.80	5.00 ug/L	
541-73-1	1,3-dichlorobenzene			not detected	2.97	5.00 ug/L	
106-46-7	1,4-dichlorobenzene			not detected	3.05	5.00 ug/L	
100-51-6	Benzyl alcohol			not detected	1.49	5.00 ug/L	
95-50-1	1,2-dichlorobenzene			not detected	2.92	5.00 ug/L	
95-48-7	2-methylphenol			not detected	1.55	5.00 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	2.67	5.00 ug/L	
106-44-5	4-methylphenol			not detected	1.64	5.00 ug/L	
621-64-7	N-nitroso-di-n-propylamine			not detected	2.61	5.00 ug/L	
67-72-1	Hexachloroethane			not detected	2.75	5.00 ug/L	
98-95-3	Nitrobenzene			not detected	2.91	5.00 ug/L	
78-59-1	Isophorone			not detected	2.93	5.00 ug/L	
88-75-5	2-nitrophenol			not detected	2.06	5.00 ug/L	
105-67-9	2,4-dimethylphenol			not detected	1.97	5.00 ug/L	
111-91-1	bis(2-chloroethoxy)methane			not detected	2.74	5.00 ug/L	
120-83-2	2,4-dichlorophenol			not detected	2.11	5.00 ug/L	
65-85-0	Benzoic acid			not detected	5.27	10.00 ug/L	
120-82-1	1,2,4-trichlorobenzene			not detected	2.99	5.00 ug/L	
91-20-3	Naphthalene			not detected	3.06	5.00 ug/L	
106-47-8	4-chloroaniline			not detected	3.72	5.00 ug/L	
87-68-3	Hexachlorobutadiene			not detected	3.07	5.00 ug/L	
59-50-7	4-chloro-3-methylphenol			not detected	2.36	5.00 ug/L	
91-57-6	2-methylnaphthalene			not detected	3.35	5.00 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	2.07	5.00 ug/L	
88-06-2	2,4,6-trichlorophenol			not detected	2.95	5.00 ug/L	
95-95-4	2,4,5-trichlorophenol			not detected	3.36	5.00 ug/L	
91-58-7	2-chloronaphthalene			not detected	3.99	5.00 ug/L	
88-74-4	2-nitroaniline			not detected	3.46	5.00 ug/L	
131-11-3	Dimethylphthalate			not detected	3.26	5.00 ug/L	
208-96-8	Acenaphthylene			not detected	3.46	5.00 ug/L	
606-20-2	2,6-dinitrotoluene			not detected	3.47	5.00 ug/L	
99-09-2	3-nitroaniline			not detected	4.12	5.00 ug/L	
83-32-9	Acenaphthene			not detected	3.58	5.00 ug/L	
51-28-5	2,4-dinitrophenol			not detected	4.02	10.00 ug/L	
132-64-9	Dibenzofuran			not detected	2.94	5.00 ug/L	
100-02-07	4-nitrophenol			not detected	1.14	5.00 ug/L	

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Semi-Volatile Analysis Report

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Data File Name E502.D
Operator ROBERTS
Date Acquired 5-Oct-10
Sample Name 1037302

Misc Info FIELD BLANK
Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	MDL	RL	Qualifiers
121-14-2	2,4-dinitrotoluene			not detected	3.47	5.00 ug/L	
84-66-2	Diethylphthalate			not detected	3.54	5.00 ug/L	
86-73-7	Fluorene			not detected	3.64	5.00 ug/L	
7005-72-3	4-chlorophenyl-phenylether			not detected	3.74	5.00 ug/L	
100-01-6	4-nitroaniline			not detected	2.92	5.00 ug/L	
534-52-1	4,6-dinitro-2-methylphenol			not detected	2.22	10.00 ug/L	
86-30-6	N-nitrosodiphenylamine			not detected	3.49	5.00 ug/L	
103-33-3	Azobenzene			not detected	3.43	5.00 ug/L	
101-55-3	4-bromophenyl-phenylether			not detected	3.98	5.00 ug/L	
118-74-1	Hexachlorobenzene			not detected	3.73	5.00 ug/L	
87-86-5	Pentachlorophenol			not detected	2.70	5.00 ug/L	
85-01-8	Phenanthrene			not detected	3.42	5.00 ug/L	
120-12-7	Anthracene			not detected	3.27	5.00 ug/L	
84-74-2	Di-n-butylphthalate			not detected	2.83	5.00 ug/L	
206-44-0	Fluoranthene			not detected	3.08	5.00 ug/L	
92-87-5	Benzidine			not detected	16.11	16.11 ug/L	
129-00-0	Pyrene			not detected	2.59	5.00 ug/L	
85-68-7	Butylbenzylphthalate			not detected	2.57	5.00 ug/L	
56-55-3	Benzo[a]anthracene			not detected	2.71	5.00 ug/L	
91-94-1	3,3'-dichlorobenzidine			not detected	11.62	11.62 ug/L	
218-01-9	Chrysene			not detected	2.47	5.00 ug/L	
117-81-7	bis(2-ethylhexyl)phthalate			not detected	3.74	5.00 ug/L	
117-84-0	Di-n-octylphthalate			not detected	2.41	5.00 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	2.28	5.00 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2.56	5.00 ug/L	
50-32-8	Benzo[a]pyrene			not detected	2.60	5.00 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	2.67	5.00 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	2.68	5.00 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	3.16	5.00 ug/L	

* Higher of PQL's and Interim Criteria as per NJAC 7:9-6.9(c).

Qualifiers

E= Value Exceeds Linear Range

D= Value from dilution

B= Compound in Related Blank

RL= Reporting Limit. The values between the MDL and RL are considered estimated.

J= Estimated concentration, value lies between RL and MDL

MDL= Method Detection Limit

NLE= No Limit Established

R.T.=Retention Time

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id:

FIELD BLANK

Lab Name: FMETL Lab Code 13461
Project: _____ Case No.: _____ Location: _____ SDG No.: 10373
Matrix: (soil/water) WATER Lab Sample ID: 1037302
Sample wt/vol: 1000 (g/ml) ML Lab File ID: E502.D
Level: (low/med) LOW Date Received: 8/31/2010
% Moisture: _____ decanted: (Y/N) N Date Extracted: 9/3/2010
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/2010
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.	extraction by-product	6.70	6	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name E503.D
Operator ROBERTS
Date Acquired 5-Oct-10
Sample Name 1037303

Misc Info 482 TMP-1
Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	MDL	RL	Qualifiers
110-86-1	pyridine			not detected	1.56	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	3.57	5.00 ug/L	
62-53-3	Aniline			not detected	2.75	5.00 ug/L	
108-95-2	Phenol			not detected	0.81	5.00 ug/L	
111-44-4	bis(2-chloroethyl ether			not detected	3.23	5.00 ug/L	
95-57-8	2-chlorophenol			not detected	1.80	5.00 ug/L	
541-73-1	1,3-dichlorobenzene			not detected	2.97	5.00 ug/L	
106-46-7	1,4-dichlorobenzene			not detected	3.05	5.00 ug/L	
100-51-6	Benzyl alcohol			not detected	1.49	5.00 ug/L	
95-50-1	1,2-dichlorobenzene			not detected	2.92	5.00 ug/L	
95-48-7	2-methylphenol			not detected	1.55	5.00 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	2.67	5.00 ug/L	
106-44-5	4-methylphenol			not detected	1.64	5.00 ug/L	
621-64-7	N-nitroso-di-n-propylamine			not detected	2.61	5.00 ug/L	
67-72-1	Hexachloroethane			not detected	2.75	5.00 ug/L	
98-95-3	Nitrobenzene			not detected	2.91	5.00 ug/L	
78-59-1	Isophorone			not detected	2.93	5.00 ug/L	
88-75-5	2-nitrophenol			not detected	2.06	5.00 ug/L	
105-67-9	2,4-dimethylphenol			not detected	1.97	5.00 ug/L	
111-91-1	bis(2-chloroethoxy)methane			not detected	2.74	5.00 ug/L	
120-83-2	2,4-dichlorophenol			not detected	2.11	5.00 ug/L	
65-85-0	Benzoic acid			not detected	5.27	10.00 ug/L	
120-82-1	1,2,4-trichlorobenzene			not detected	2.99	5.00 ug/L	
91-20-3	Naphthalene			not detected	3.06	5.00 ug/L	
106-47-8	4-chloroaniline			not detected	3.72	5.00 ug/L	
87-68-3	Hexachlorobutadiene			not detected	3.07	5.00 ug/L	
59-50-7	4-chloro-3-methylphenol			not detected	2.36	5.00 ug/L	
91-57-6	2-methylnaphthalene	11.80	1305852	8.00 detected	3.35	5.00 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	2.07	5.00 ug/L	
88-06-2	2,4,6-trichlorophenol			not detected	2.95	5.00 ug/L	
95-95-4	2,4,5-trichlorophenol			not detected	3.36	5.00 ug/L	
91-58-7	2-chloronaphthalene			not detected	3.99	5.00 ug/L	
88-74-4	2-nitroaniline			not detected	3.46	5.00 ug/L	
131-11-3	Dimethylphthalate			not detected	3.26	5.00 ug/L	
208-96-8	Acenaphthylene			not detected	3.46	5.00 ug/L	
606-20-2	2,6-dinitrotoluene			not detected	3.47	5.00 ug/L	
99-09-2	3-nitroaniline			not detected	4.12	5.00 ug/L	
83-32-9	Acenaphthene			not detected	3.58	5.00 ug/L	
51-28-5	2,4-dinitrophenol			not detected	4.02	10.00 ug/L	
132-64-9	Dibenzofuran			not detected	2.94	5.00 ug/L	
100-02-07	4-nitrophenol			not detected	1.14	5.00 ug/L	

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Semi-Volatile Analysis Report

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Data File Name **E503.D**
 Operator **ROBERTS**
 Date Acquired **5-Oct-10**
 Sample Name **1037303**

Misc Info **482 TMP-1**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	MDL	RL	Qualifiers
121-14-2	2,4-dinitrotoluene			not detected	3.47	5.00 ug/L	
84-66-2	Diethylphthalate			not detected	3.54	5.00 ug/L	
86-73-7	Fluorene			not detected	3.64	5.00 ug/L	
7005-72-3	4-chlorophenyl-phenylether			not detected	3.74	5.00 ug/L	
100-01-6	4-nitroaniline			not detected	2.92	5.00 ug/L	
534-52-1	4,6-dinitro-2-methylphenol			not detected	2.22	10.00 ug/L	
86-30-6	N-nitrosodiphenylamine			not detected	3.49	5.00 ug/L	
103-33-3	Azobenzene			not detected	3.43	5.00 ug/L	
101-55-3	4-bromophenyl-phenylether			not detected	3.98	5.00 ug/L	
118-74-1	Hexachlorobenzene			not detected	3.73	5.00 ug/L	
87-86-5	Pentachlorophenol			not detected	2.70	5.00 ug/L	
85-01-8	Phenanthrene			not detected	3.42	5.00 ug/L	
120-12-7	Anthracene			not detected	3.27	5.00 ug/L	
84-74-2	Di-n-butylphthalate			not detected	2.83	5.00 ug/L	
206-44-0	Fluoranthene			not detected	3.08	5.00 ug/L	
92-87-5	Benzidine			not detected	16.11	16.11 ug/L	
129-00-0	Pyrene			not detected	2.59	5.00 ug/L	
85-68-7	Butylbenzylphthalate			not detected	2.57	5.00 ug/L	
56-55-3	Benzo[a]anthracene			not detected	2.71	5.00 ug/L	
91-94-1	3,3'-dichlorobenzidine			not detected	11.62	11.62 ug/L	
218-01-9	Chrysene			not detected	2.47	5.00 ug/L	
117-81-7	bis(2-ethylhexyl)phthalate			not detected	3.74	5.00 ug/L	
117-84-0	Di-n-octylphthalate			not detected	2.41	5.00 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	2.28	5.00 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2.56	5.00 ug/L	
50-32-8	Benzo[a]pyrene			not detected	2.60	5.00 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	2.67	5.00 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	2.68	5.00 ug/L	
191-24-2	Benzo[ghi]perylene			not detected	3.16	5.00 ug/L	

* Higher of PQL's and Interim Criteria as per NJAC 7:9-6.9(c).

Qualifiers

E= Value Exceeds Linear Range

D= Value from dilution

B= Compound in Related Blank

RL= Reporting Limit. The values between the MDL and RL are considered estimated.

J= Estimated concentration, value lies between RL and MDL

MDL= Method Detection Limit

NLE= No Limit Established

R.T.=Retention Time

000053

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id:

482 TMP-1

Lab Name: FMETL Lab Code 13461

Project: _____ Case No.: _____ Location: _____ SDG No.: 10373

Matrix: (soil/water) WATER Lab Sample ID: 1037303

Sample wt/vol: 1000 (g/ml) ML Lab File ID: E503.D

Level: (low/med) LOW Date Received: 8/31/2010

% Moisture: _____ decanted: (Y/N) N Date Extracted: 9/3/2010

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/2010

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 25 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	extraction by-product	6.70	7	J
2.	C4 alkyl benzene	10.40	5	J
3. 000090-12-0	Naphthalene, 1-methyl-	11.94	10	JN
4.	Naphthalene, ethyl-	12.61	5	J
5.	Naphthalene, dimethyl-	12.71	7	J
6.	Naphthalene, dimethyl-	12.81	8	J
7.	Naphthalene, dimethyl-	12.85	4	J
8.	Alkane: Branched	12.90	7	J
9.	Naphthalene, dimethyl-	12.99	5	J
10.	Naphthalene, dimethyl-	13.11	5	J
11.	Naphthalene, trimethyl-	13.61	5	J
12.	Naphthalene, trimethyl-	13.90	7	J
13.	unknown hydrocarbon	14.03	4	J
14.	unknown hydrocarbon	14.11	6	J
15.	Alkane: Branched	14.25	8	J
16.	Alkane: Branched	14.64	13	J
17.	9H-Fluorene, methyl-	14.96	5	J
18.	Alkane: Branched	15.32	9	J
19.	Alkane: Branched	15.83	7	J
20.	unknown carboxylic acid	16.24	23	J
21.	Alkane: Branched	16.36	5	J
22.	unknown hydrocarbon	16.59	4	J
23.	unknown carboxylic acid	17.38	14	J
24.	unknown hydrocarbon	18.48	4	J
25.	unknown hydrocarbon	20.56	7	J

U.S. Army, Ft. Monmouth
Environmental Laboratory
173 Riverside Ave., NJ 07703

Client: U.S. ARMY
Project Name: Bldg 482
Field ID: Field Blank
Lab ID: 10373-02
Filename: 09131006.D
Lab Project : 10373

Location: Bldg 482
MATRIX: Aqueous
Ext. Batch: PP09011001
Date Extracted: 9/1/2010
Date Analyzed: 9/13/2010
Dilution: 1
Analyst: CR

CAS #	COMPOUNDS	RESULTS	Reporting Limit	Regulatory Level	Qualifier	MDL
		(ug/L)	(ug/L)	(ug/L)		(ug/L)
319-84-6	alpha-BHC	ND	0.02	0.02		0.003
319-85-7	beta-BHC	ND	0.02	0.04		0.008
58-89-9	gamma-BHC	ND	0.02	0.03		0.004
319-86-8	delta-BHC	ND	0.02	NLE		0.006
76-44-8	Heptachlor	ND	0.02	0.05		0.005
309-00-2	Aldrin	ND	0.02	0.04		0.005
1024-57-3	Heptachlor epoxide	ND	0.02	0.2		0.005
5103-71-9	gamma-Chlordane	ND	0.02	NLE		0.007
5103-74-2	alpha-Chlordane	ND	0.02	NLE		0.006
959-98-8	Endosulfan I	ND	0.02	40		0.006
72-55-9	4,4'-DDE	ND	0.02	0.1		0.008
60-57-1	Dieldrin	ND	0.02	0.03		0.006
72-20-8	Endrin	ND	0.02	2		0.008
33213-65-9	Endosulfan II	ND	0.02	40		0.007
72-54-8	4,4'-DDD	ND	0.02	0.1		0.008
7421-93-4	Endrin aldehyde	ND	0.02	NLE		0.007
50-29-3	4,4'-DDT	ND	0.02	0.1		0.009
1031-07-8	Endosulfan sulfate	ND	0.02	40		0.007
53494-70-5	Endrin ketone	ND	0.02	NLE		0.007
72-43-5	Methoxychlor	ND	0.02	40		0.008
8001-35-2	Toxaphene	ND	0.5	2		0.090
57-74-9	Chlordane	ND	0.5	0.5		0.071

MDL = Method Detection Limit.

ND =Not Detected / Below MDL.

B = Present in the associated Blank.

E = Exceeded Calibration Range, Dilution to follow.

D = Dilution.

NLE = No Limit Established.

RL = Reporting Limit.

Initial Vol.(ml) 1000

Final Vol.(ml) 10

*Higher of PQLs and ground water criteria as per NJAC 7:9-6

*Results between MDL and RL are estimated.

Column-Primary: Rtx-CLPesticides 30m/.32mm ID/.25um.

Column-Confirmation: Rtx-CLPesticides2 30m/.32mm ID/.5um.

000072

U.S. Army, Ft. Monmouth
Environmental Laboratory
173 Riverside Ave., NJ 07703

Client: U.S. ARMY
Project Name: Bldg 482
Field ID: 482-TMP-1
Lab ID: 10373-03
Filename: 09131007.D
Lab Project: 10373

Location: Bldg 482
MATRIX: Aqueous
Ext. Batch: PP09011001
Date Extracted: 9/1/2010
Date Analyzed: 9/13/2010
Dilution: 1
Analyst: CR

CAS #	COMPOUNDS	RESULTS	Reporting Limit	Regulatory Level	Qualifier	MDL
		(ug/L)	(ug/L)	(ug/L)		(ug/L)
319-84-6	alpha-BHC	ND	0.02	0.02		0.003
319-85-7	beta-BHC	ND	0.02	0.04		0.008
58-89-9	gamma-BHC	ND	0.02	0.03		0.004
319-86-8	delta-BHC	ND	0.02	NLE		0.006
76-44-8	Heptachlor	ND	0.02	0.05		0.005
309-00-2	Aldrin	ND	0.02	0.04		0.005
1024-57-3	Heptachlor epoxide	ND	0.02	0.2		0.005
5103-71-9	gamma-Chlordane	ND	0.02	NLE		0.007
5103-74-2	alpha-Chlordane	ND	0.02	NLE		0.006
959-98-8	Endosulfan I	ND	0.02	40		0.006
72-55-9	4,4'-DDE	ND	0.02	0.1		0.008
60-57-1	Dieldrin	ND	0.02	0.03		0.006
72-20-8	Endrin	ND	0.02	2		0.008
33213-65-9	Endosulfan II	ND	0.02	40		0.007
72-54-8	4,4'-DDD	ND	0.02	0.1		0.008
7421-93-4	Endrin aldehyde	ND	0.02	NLE		0.007
50-29-3	4,4'-DDT	ND	0.02	0.1		0.009
1031-07-8	Endosulfan sulfate	ND	0.02	40		0.007
53494-70-5	Endrin ketone	ND	0.02	NLE		0.007
72-43-5	Methoxychlor	ND	0.02	40		0.008
8001-35-2	Toxaphene	ND	0.5	2		0.090
57-74-9	Chlordane	ND	0.5	0.5		0.071

MDL = Method Detection Limit.

ND =Not Detected / Below MDL.

B = Present in the associated Blank.

E = Exceeded Calibration Range, Dilution to follow.

D = Dilution.

NLE = No Limit Established.

RL = Reporting Limit.

Initial Vol.(ml)

1000

Final Vol.(ml)

10

*Higher of PQLs and ground water criteria as per NJAC 7:9-6

*Results between MDL and RL are estimated.

Column-Primary: Rtx-CLPesticides 30m/.32mm ID/.25um.

Column-Confirmation: Rtx-CLPesticides2 30m/.32mm ID/.5um.

000073

U.S. Army, Ft. Monmouth Environmental Laboratory

Report of Analysis
NJDEP Certification # 13461
Method 8082

Client: US Army
Location: Bldg 482
Client ID: Field Blank
Lab ID: 10373-02
Filename: 10051014.D
Lab Project No: 10373

MATRIX: Aqueous
Date Extracted: 9/1/2010
Ext. Batch: PP09011001
Date Analyzed: 10/25/2010
DILUTION: 1

Analyst: CR

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS</u> (ug/L)	<u>QUALIFIER</u>	<u>MDL</u> (ug/L)
12674-11-2	AROCLOR 1016	ND		0.060
11104-28-2	AROCLOR 1221	ND		0.290
11141-16-5	AROCLOR 1232	ND		0.110
53469-21-9	AROCLOR 1242	ND		0.110
12672-29-6	AROCLOR 1248	ND		0.050
11097-69-1	AROCLOR 1254	ND		0.040
11096-82-5	AROCLOR 1260	ND		0.160

*RESULTS BETWEEN MDL AND RL ARE ESTIMATED.

MDL = METHOD DETECTION LIMIT

ND = UNDETECTED BELOW THE MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Initial Vol (ml) 1000.00

Final Vol.(ml) 10.00

000075

U.S. Army, Ft. Monmouth Environmental Laboratory

Report of Analysis
NJDEP Certification # 13461
Method 8082

Client: US Army
Location: Bldg 482
Client ID: 482-TMP-1
Lab ID: 10373-03
Filename: 10051015.D
Lab Project No: 10373

MATRIX: Aqueous
Date Extracted: 9/1/2010
Ext. Batch: PP09011001
Date Analyzed: 10/25/2010
DILUTION: 1

Analyst: CR

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS</u> (ug/L)	<u>QUALIFIER</u>	<u>MDL</u> (ug/L)
12674-11-2	AROCLOR 1016	ND		0.060
11104-28-2	AROCLOR 1221	ND		0.290
11141-16-5	AROCLOR 1232	ND		0.110
53469-21-9	AROCLOR 1242	ND		0.110
12672-29-6	AROCLOR 1248	ND		0.050
11097-69-1	AROCLOR 1254	ND		0.040
11096-82-5	AROCLOR 1260	ND		0.160

*RESULTS BETWEEN MDL AND RL ARE ESTIMATED.

MDL = METHOD DETECTION LIMIT

ND = UNDETECTED BELOW THE MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

Initial Vol (ml) 1000.00

Final Vol.(ml) 10.00

000076

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

Client: U.S. Army
 DPW, SELFM-PW-EV
 Bldg. 173
 Ft. Monmouth, NJ 07703

Lab ID #: 1037302
 Sample Received: 08/31/10
 Sample Matrix: Aqueous

Site: Bldg. 482

Field ID#: Field Blank

Method of Analysis: Std. Methods 18th, Method 3120B, 3113B & 3112B
 EPA Method 279.2

PP-METALS RESULTS SUMMARY (ug/L)

Element	Date of Analysis	Result (ug/L)	Regulatory Level (ug/L)*	R.L. (ug/L)	MDL (ug/L)
Antimony	09/14/10	ND	6	10.00	4.80
Arsenic	09/13/10	ND	3	5.00	0.62
Beryllium	09/14/10	ND	1	0.500	0.04
Cadmium	09/14/10	ND	4	2.00	0.500
Chromium	09/14/10	ND	70	5.00	1.00
Copper	09/14/10	ND	1300	5.00	1.00
Lead	09/14/10	ND	5	5.00	2.40
Mercury	09/14/10	ND	2	0.500	0.050
Nickel	09/14/10	1.00	100	5.00	0.400
Selenium	10/22/10	ND	40	5.00	1.36
Silver	09/14/10	1.00	40	5.00	0.500
Thallium	09/15/10	ND	2	5.00	0.53
Zinc	09/14/10	3.00	2000	50.00	1.20

ND = Not Detected NLE = No Limit Established, MDL = Method Detection Limit

* Higher of PQL's and Interim Criteria as per N.J.A.C. 7:9C 11/07/05

R.L. = Reporting limit, Estimated results between MDL and R.L.

000092

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

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 173
Ft. Monmouth, NJ 07703

Lab ID #: 1037303
Sample Received: 08/31/10
Sample Matrix: Aqueous

Site: Bldg. 482

Field ID#: 482/TMP-1

Method of Analysis: Std. Methods 18th, Method 3120B, 3113B & 3112B
EPA Method 279.2

PP-METALS RESULTS SUMMARY (ug/L)

Element	Date of Analysis	Result (ug/L)	Regulatory Level (ug/L)*	R.L. (ug/L)	MDL (ug/L)
Antimony	09/14/10	11.5	6	10.00	4.80
Arsenic	09/13/10	85.63	3	5.00	0.62
Beryllium	09/14/10	0.043	1	0.500	0.04
Cadmium	09/14/10	1.63	4	2.00	0.500
Chromium	09/14/10	3.52	70	5.00	1.00
Copper	09/14/10	2.71	1300	5.00	1.00
Lead	09/14/10	6.17	5	5.00	2.40
Mercury	09/14/10	ND	2	0.500	0.050
Nickel	09/14/10	2.79	100	5.00	0.400
Selenium	10/22/10	ND	40	5.00	1.36
Silver	09/14/10	7.48	40	5.00	0.500
Thallium	09/15/10	ND	2	5.00	0.53
Zinc	09/14/10	ND	2000	50.00	1.20

ND = Not Detected NLE = No Limit Established, MDL = Method Detection Limit

* Higher of PQL's and Interim Criteria as per N.J.A.C. 7:9C 11/07/05

R.L. = Reporting limit, Estimated results between MDL and R.L.

000093

Report of Analysis

Page 1 of 1

Client Sample ID:	1037202 ⁵⁸ FIELD BLANK	Date Sampled:	08/31/10
Lab Sample ID:	JA55318-1	Date Received:	09/01/10
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Project:	Building 482		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.010	0.010	mg/l	1	09/07/10 11:07	NP	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Page 1 of 1

1037303
52
Client Sample ID: 1037203 TMP-1
Lab Sample ID: JA55318-2
Matrix: AQ - Ground Water
Project: Building 482

Date Sampled: 08/31/10
Date Received: 09/01/10
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.010	0.010	mg/l	1	09/07/10 11:08	NP	EPA 335.4/LACHAT

RL = Reporting Limit

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-6224 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461



ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: 11-124969

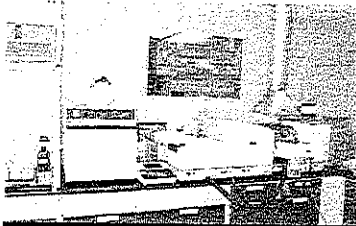
Bldg. 482/UST

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
482-GW-2	1126401	Aqueous	25-Jun-11 09:30	06/27/11
482-GW2-DUP.	1126402	Aqueous	25-Jun-11 09:30	06/27/11
482-GW2-Field Blank	1126403	Aqueous	25-Jun-11 09:00	06/27/11
Trip Blank	1126404	Aqueous	25-Jun-11	06/27/11

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15

ACCUTEST LABORATORIES
TOTAL LEAD


Dean Tardiff/Date: 6/27/11
Laboratory Manager



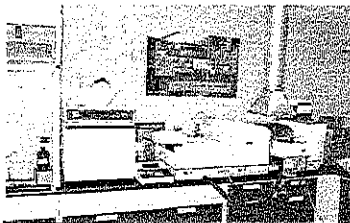
Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-6263 EMail:dean.tardiff@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]



Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-6263 EMail:dean.tardiff@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]

000004

U.S. ARMY-FT. MONMOUTH, NJ

SITE 482

SOIL SAMPLING GPS POSITIONS & COORDINATES

US STATE PLANE 1983, NJ (NY EAST) 2900, NAD 1983 (CONUS)

<u>POSITION/DESCRIPTION</u>	<u>Y COORDINATE (NORTHING)</u>	<u>X COORDINATE (EASTING)</u>
482-GW-2	541786.083	623621.5368

Field Duplicate Identification

Lab ID: 11264

Site: Bldg. 482

The Field Duplicate was performed on 482-GW-2 (1126401).

000008

Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File VA10104.D
 Operator ROBERTS
 Date Acquired 27 Jun 2011 5:38 pm

Sample Name 1126401
 Field ID 482-GW2
 Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	MDL	RL	Qualifiers
107028	Acrolein			not detected	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene	10.60	5423	0.17 ug/L	0.12 ug/L	0.50 ug/L	J
107-06-2	1,2-Dichloroethane			not detected	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	0.24 ug/L	0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	0.17 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

482 GW2

Lab Name: FMETL NJDEP# 13461

Project: _____ Case No: _____ Location: 482 SDG No.: 11264

Matrix: (soil/water) WATER Lab Sample ID: 1126401

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA10104.D

Level: (low/med) LOW Date Received: 6/25/2011

% Moisture: not dec. _____ Date Analyzed: 6/27/2011

GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkane: Cyclic	10.16	36	J
2.	Alkane: Cyclic	11.71	29	J
3. 000103-65-1	Benzene, propyl-	18.36	17	JN
4.	C4 alkyl benzene	20.53	17	J
5. 000496-11-7	Indane	20.68	67	JN
6.	C4 alkyl benzene	21.34	49	J
7.	1H-Indene-dihydro-methyl-	21.49	19	J
8.	1H-Indene-dihydro-methyl-	21.59	46	J
9.	C4 alkyl benzene	21.96	39	J
10.	1H-Indene-dihydro-methyl-	22.49	34	J
11.	C4 alkyl benzene	22.69	80	J
12.	1H-Indene-dihydro-methyl-	22.74	74	J
13.	1H-Indene-dihydro-dimethyl-	23.18	28	J
14.	1H-Indene-dihydro-dimethyl-	23.27	21	J
15.	1H-Indene-dihydro-dimethyl-	23.42	46	J

Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File **VA10105.D**
 Operator **ROBERTS**
 Date Acquired **27 Jun 2011 6:18 pm**

Sample Name **1126402**
 Field ID **482-GW2 DUPLICATE**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	MDL	RL	Qualifiers
107028	Acrolein			not detected	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene	10.60	7805	0.23 ug/L	0.12 ug/L	0.50 ug/L	J
107-06-2	1,2-Dichloroethane			not detected	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	0.24 ug/L	0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	0.17 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

482 GW2 DUP

Lab Name: FMETL NJDEP# 13461

Project: _____ Case No: _____ Location: 482 SDG No.: 11264

Matrix: (soil/water) WATER Lab Sample ID: 1126402

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA10105.D

Level: (low/med) LOW Date Received: 6/25/2011

% Moisture: not dec. _____ Date Analyzed: 6/27/2011

GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkane: Cyclic	10.16	46	J
2.	Alkane: Cyclic	11.72	35	J
3. 000103-65-1	Benzene, propyl-	18.36	18	JN
4.	C4 alkyl benzene	20.53	19	J
5. 000496-11-7	Indane	20.69	76	JN
6.	C4 alkyl benzene	21.33	56	J
7.	1H-Indene-dihydro-methyl-	21.48	21	J
8.	1H-Indene-dihydro-methyl-	21.59	58	J
9.	C4 alkyl benzene	21.96	48	J
10.	1H-Indene-dihydro-methyl-	22.49	36	J
11.	C4 alkyl benzene	22.69	95	J
12.	1H-Indene-dihydro-methyl-	22.75	78	J
13.	1H-Indene-dihydro-dimethyl-	23.18	33	J
14.	1H-Indene-dihydro-dimethyl-	23.28	23	J
15.	1H-Indene-dihydro-dimethyl-	23.43	50	J

Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File **VA10102.D**
 Operator **ROBERTS**
 Date Acquired **27 Jun 2011 4:40 pm**

Sample Name **1126404**
 Field ID **TRIP BLANK**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	MDL	RL	Qualifiers
107028	Acrolein			not detected	3.21 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	0.98 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	1.64 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	0.11 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	0.17 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	0.17 ug/L	0.50 ug/L	
74-87-3	Chloromethane			not detected	0.27 ug/L	0.50 ug/L	
75-01-4	Vinyl Chloride			not detected	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane			not detected	0.37 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not detected	0.32 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not detected	0.15 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	0.15 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	0.32 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	0.12 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	0.26 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	0.14 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	0.12 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	0.22 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	0.12 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	0.35 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	0.12 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	0.12 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	0.12 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	0.11 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	0.11 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	0.12 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	0.12 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	0.24 ug/L	0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	0.15 ug/L	0.50 ug/L	
108-88-3	Toluene			not detected	0.12 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	0.13 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	0.17 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	0.12 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	0.12 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	0.12 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	0.13 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	0.30 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	0.14 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	0.14 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	0.16 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	0.15 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	0.13 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

TRIP BLANK

Lab Name: FMETL NJDEP# 13461
Project: _____ Case No: _____ Location: 482 SDG No.: 11264
Matrix: (soil/water) WATER Lab Sample ID: 1126404
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA10102.D
Level: (low/med) LOW Date Received: 6/25/2011
% Moisture: not dec. _____ Date Analyzed: 6/27/2011
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Report of Analysis

Page 1 of 1

Client Sample ID: 1126401 482-GW-2	Date Sampled: 06/25/11
Lab Sample ID: JA79588-1	Date Received: 06/28/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Fort Monmouth Env Testing Lab, Building 173, SELFM-PW-EV, Fort Monmouth, NJ	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	80.6	12	ug/l	2	06/30/11	07/02/11 VC	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA26653

(2) Prep QC Batch: MP58959

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

000040

Report of Analysis

Page 1 of 1

Client Sample ID: 1126402 482GW2-DUP	Date Sampled: 06/25/11
Lab Sample ID: JA79588-2	Date Received: 06/28/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Fort Monmouth Env Testing Lab, Building 173, SELFM-PW-EV, Fort Monmouth, NJ	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	79.0	12	ug/l	2	06/30/11	07/02/11 VC	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA26653

(2) Prep QC Batch: MP58959

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

000041

Report of Analysis

Page 1 of 1

Client Sample ID: 1126403 482GW2-FIELD BLANK	Date Sampled: 06/25/11
Lab Sample ID: JA79588-3	Date Received: 06/28/11
Matrix: AQ - Field Blank Water	Percent Solids: n/a
Project: Fort Monmouth Env Testing Lab, Building 173, SELFM-PW-EV, Fort Monmouth, NJ	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	≤ 3.0	3.0	ug/l	1	06/30/11	07/01/11 VC	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA26643

(2) Prep QC Batch: MP58959

RL = Reporting Limit

000042

Attachment B
2016 Soil Boring Log for FTMM-83-SS-12
(also designated as FTMM-83-SB-12)

Soil Boring Log

CLIENT: USACE				INSPECTOR: <u>Ch</u>		BORING/WELL ID: <u>PAR-83-5B-12</u>	
PROJECT NAME: FTMM - ECP				DRILLER: <u>Joe GARNER</u>		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel				WEATHER: <u>35°F Windy</u>		Parcel 83	
PROJECT NUMBER: 748810-				CONTRACTOR: <u>East Coast Drilling, Inc. (ECDI)</u>		LOCATION PLAN	
GROUNDWATER OBSERVATIONS				RIG TYPE: <u>Geoprobe(R) 7822DT</u>		Oceanport, New Jersey	
WATER LEVEL: <u>~3'</u>				DATE/TIME START: <u>1025 4/5/16</u>			
DATE: <u>4/5/16</u>				DATE/TIME FINISH: <u>1650 4/5/16</u>			
TIME: <u>1055</u>				WEIGHT OF HAMMER: <u>N/A</u>			
MEAS. FROM: <u>BGS</u>				DROP OF HAMMER: <u>N/A</u>			
TYPE OF HAMMER: <u>N/A</u>							
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0			90/46	0	0-12" concrete		
				0	12"-27" moist, grey-green, MF, m. dense SAND, little silt, little F gravel		
1	1-1.5			0			
	1.8-2.3			0			
2				0	27"-46" moist, grey-green, MF, m. dense SAND, some silt, little clay		
	2.5-3			138	* saturated @ 37"		
3				56.5			
				19.0	46"-60" NR		
4				NR			
				NR			
5			60/160	64.3	0-44" SAA		
				29.0	44"-60" wet, grey-green/orange-brown mottled, MF, m. dense, SAND, trace silt, trace clay		
6				44.2			
				5.7			
7				2.1			
				0			
8				0			
				0			
9				0			
				0			
10				0			
Remarks:							
Sample Types				Consistency vs. Blowcount / Foot			
S - Split Spoon				Granular (Sand & Gravel)			
U - Undisturbed Tube				Fine Grained (Silt & Clay)			
C - Rock Core				V. Loose: 0-4 Dense: 30-50 V. Soft: <2 Stiff: 8-15			
A - Auger Cuttings				Loose: 4-10 V. Dense: >50 Soft: 2-4 V. Stiff: 15-30			
				M. Dense: 10-30 M. Stiff: 4-8 Hard: >30			
				and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation			

1108

1105

1116

Soil Boring Log

CLIENT: USACE					INSPECTOR: CW		BORING/WELL ID: 2118-83-SB-13	
PROJECT NAME: FTMM - ECP					DRILLER: JOE BARWAK		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel					WEATHER: 38°F Windy		Parcel 83	
PROJECT NUMBER: 748810-					CONTRACTOR: East Coast Drilling, Inc. (ECDI)			
GROUNDWATER OBSERVATIONS					RIG TYPE: Geoprobe(R) 7822DT		LOCATION PLAN	
WATER LEVEL: ~3'					DATE/TIME START: 4/5/16 1230		Oceanport, New Jersey	
DATE: 4/5/16					DATE/TIME FINISH: 4/5/16 1250			
TIME: 1255					WEIGHT OF HAMMER: N/A			
MEAS. FROM: 865					DROP OF HAMMER: N/A			
					TYPE OF HAMMER: N/A			
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS	
0			60/40	6	0-3" Asphalt			
1245	0.5-1				3-5" Crushed asphalt/rock			
1					5-18" moist grey/brown, m. dense, mf SAND, little f gravel, little f rock frags, trace silt, trace M. Rock frags			
1255	1.5-2							
2								
1300	2.5-3							
3					18-40" moist, grey-green, mf, m. dense SAND, little silt, trace clay			
4					Saturated @ 35"			
5			60/40	0	0-23" SAA			
6					23-60" wet, green-grey/brown mottled mf SAND, trace silt, trace clay			
7								
8								
9								
10					end of Boring @ 10'			
Remarks:								
Sample Types					Consistency vs. Blowcount / Foot			
S -- Split-Spoon					Granular (Sand & Gravel)			
U -- Undisturbed Tube					Fine Grained (Silt & Clay)			
C -- Rock Core					V. Loose: 0-4 Dense: 30-50 V. Soft: <2 Stiff: 8-15			
A -- Auger Cuttings					Loose: 4-10 V. Dense: >50 Soft: 2-4 V. Stiff: 15-30			
					M. Dense: 10-30 M. Stiff: 4-8 Hard: >30			
					and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation			