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

April 14, 2015

Ms. Linda Range New Jersey Department of Environmental Protection Case Manager Bureau of Southern Field Operations 401 East State Street, 5th Floor PO Box 407 Trenton, NJ 08625

Re: Underground Storage Tanks within Parcel 74

Fort Monmouth, NJ

Attachments:

- A. Summary Table of Parcel 74 Underground Storage Tanks
- B. Site Layout Drawings of Parcel 74 (2 drawings)
- C. No Further Action Letters from NJDEP
- D. UST 206A Report
- E. UST 287 Report

Dear Ms. Range:

The U.S. Army Fort Monmouth (FTMM) has reviewed existing file information for underground storage tank (UST) sites at Fort Monmouth within Environmental Condition of Property (ECP) Parcel 74. The purpose of this submittal is to provide comprehensive documentation of the location and closure status of all USTs identified within this parcel, which we believe will be useful for the future Phase II property transfer.

A summary table of USTs identified within Parcel 74 is provided as Attachment A, and the locations of these USTs within Parcel 74 are presented in Attachment B. All of the USTs identified within Parcel 74 have been removed.

Multiple USTs within Parcel 74 have been identified that were previously approved for No Further Action (NFA) by NJDEP; documentation of this approval is provided in Attachment C, and referenced below for specific USTs. In these cases, there is generally a supporting investigation report that was previously submitted to NJDEP that describes the basis for closure. For the sake of brevity, we have not included these reports for USTs where an NFA has already been approved. However, these reports are available within the FTMM environmental records.

In the Attachment A table, the term "Case Closed" has been used (consistent with previous FTMM procedures) to indicate the Army determined that no further sampling or remedial actions were warranted for a specific UST site. "Case Open" indicates that the Army determined that ongoing monitoring, reporting or possibly even remedial action was warranted. In contrast, "No Further Action" has been reserved for NJDEP approval that no further sampling or remedial actions are warranted.

Parcel 74 includes existing barracks, museum, and fire and guard house buildings of Fort Monmouth. It is an irregularly shaped area located in the vicinity of Barker Circle and First Avenue of the Main Post. It was designated in the ECP Report as residential housing and the fire house with former fuel oil USTs.

We are submitting the following documentation for the multiple USTs that were previously removed from Parcel 74, and we request a No Further Action determination for each site (sites that have been previously approved by NJDEP are highlighted in green):

- UST 205 NFA was approved by NJDEP on 8/29/2000 (Attachment C).
- UST 206A investigation report is presented in Attachment D.
- UST 206B NFA was approved by NJDEP on 10/23/2000 (Attachment C).
- UST 207A NFA was approved by NJDEP on 8/29/2000 (Attachment C).
- UST 207B NFA was approved by NJDEP on 8/29/2000 (Attachment C).
- UST 208A NFA was approved by NJDEP on 1/10/2003 (Attachment C).
- UST 208B NFA was approved by NJDEP on 1/10/2003 (Attachment C).
- UST 257 NFA was approved by NJDEP on 1/10/2003 (Attachment C).
- UST 275 NFA was approved by NJDEP on 10/23/2000 (Attachment C).
- UST 282 NFA was approved by NJDEP on 8/29/2000 (Attachment C).
- UST 287 investigation report is presented in Attachment E.

This information supports the conclusion that all UST contamination issues identified within Parcel 74 have been adequately addressed by previous environmental activities.

In summary, we submit that the Army has provided adequate due diligence with regards to the environmental condition of this Parcel, and we request that NJDEP approve No Further Action. Should you have any questions or require additional information, please contact me at (732) 380-7064 or by email at wanda.s.green2.civ@mail.mil.

Sincerely,

Wanda Green

BRAC Environmental Coordinator

Mandatheen

cc: Delight Balducci, HQDA ACSIM Joseph Pearson, Calibre James Moore, USACE Cris Grill, Parsons

ATTACHMENT A

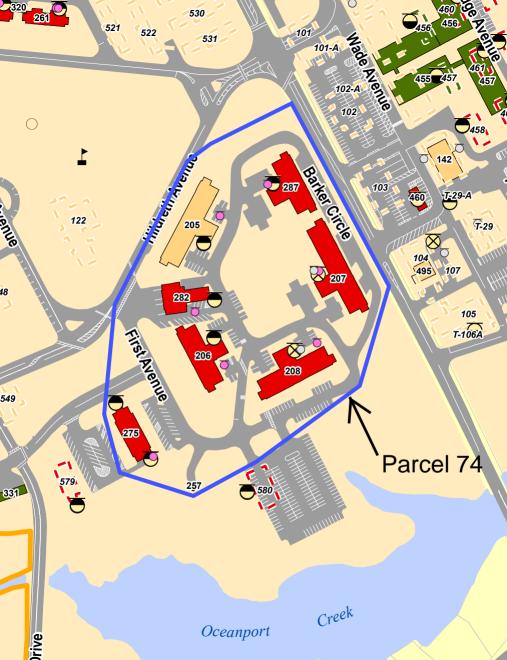
Summary Table of Parcel 74 Underground Storage Tanks

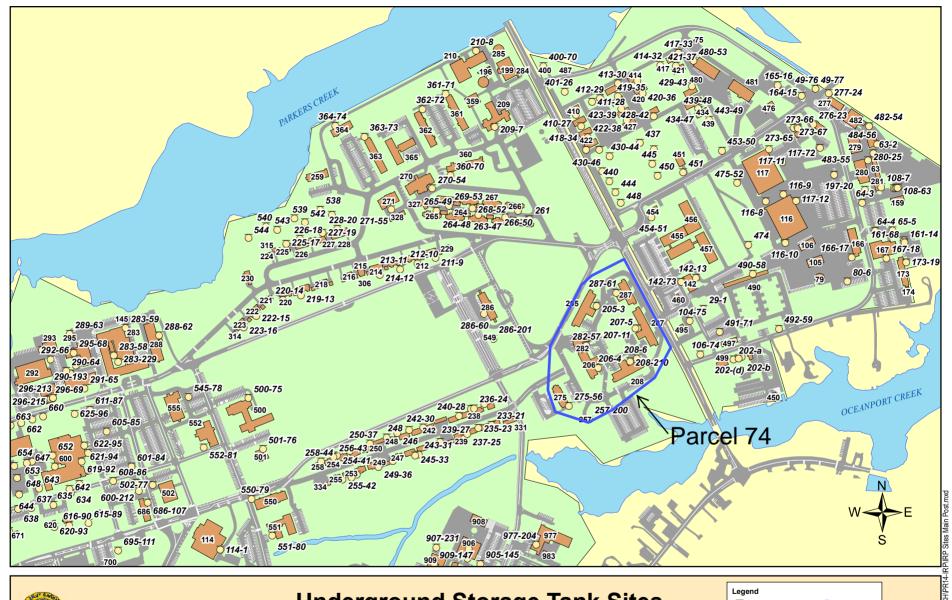
Summary Table of Parcel 74 USTs

Site Name	RESIDENT IAL	Registration ID	DICAR	Tank Size and Type	Product	Army CaseStatus	File Review Comments
205		81533-3		4000 gal. fiberglass	#2 FUEL OIL		NJDEP closure letter 8/29/2000
206A	YES	81533-4	93-10-21-1910-16	4000 gal. fiberglass	#2 FUEL OIL	Case Closed	Submit Smith report and request NFA
206B	YES	81533-	94-12-01-1007-23	3000 gal. steel	#2 FUEL OIL	Case Closed	NJDEP closure letter 10/23/2000
207A	YES	81533-5	93-11-2-1004-28	4000 gal. fiberglass	#2 FUEL OIL	Case Closed	NJDEP closure letter 8/29/2000
207B	YES	81533-211	93-11-2-1004-28	3000 gal. steel	#2 FUEL OIL	Case Closed	NJDEP closure letter 8/29/2000
208A	YES	81533-6		4000 gal. fiberglass	#2 FUEL OIL	Case Closed	NJDEP closure letter 1/10/2003
208B	YES	81533-210	93-10-21-1913-44	4000 gal. steel	#2 FUEL OIL	Case Closed	NJDEP closure letter 1/10/2003
257	NO	81533-200	98-01-10-1437-39	275 gal. steel	DIESEL	Case Closed	NJDEP closure letter 1/10/2003
275	NO	81533-56	98-07-22-1114-44	4000 gal. fiberglass	#2 FUEL OIL	Case Closed	NJDEP closure letter 10/23/2000
282	NO	81533-57	93-11-29-1738-37	2000 gal. fiberglass	#2 FUEL OIL	Case Closed	NJDEP closure letter 8/29/2000
287	NO	81533-61	93-11-29-1745-01	2000 gal. fiberglass	#2 FUEL OIL	Case Open	Submit TVS report and request NFA

ATTACHMENT B

Site Layout Drawings of Parcel 74







375



750





1,500 Feet

Underground Storage Tank Sites Main Post Fort Monmouth, New Jersey **FOUO**

Existing Building Post Boundaries Roadway & Parking

Map Created by: Fort Monmouth Installation GIO, Environmental Division Fort Monmouth, New Jersey Date: January 10, 2011 All drawings must be field verified. New Jersey State Plane Feet, NAD83

ATTACHMENT C

No Further Action Letters from NJDEP



State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr.

Commissioner

Mr. Dinkerrai Desai

DEPARTMENT OF THE ARMY

HEADQUARTERS, U.S. ARMY COMMUNICATIONS-ELECTRONIC COMMAND

FORT MONMOUTH, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County

Dear Mr. Desai:

The NJDEP is in receipt of twenty-five (25) UST closure reports dated August 1, 2000. The Army has requested to receive No Further Action approval letters for each of these reports. This letter approves the NFA requests for the following 25 UST located on the Main Post of the Fort Monmouth site:

NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #
0090010-03	64	0081533-80	551
0090010-05	65	0081533-81	552
0090010-05	74	0081533—120	746
0081533-03	205	0081533-122	748
0090010-29	412	0081533123	749
0090010-30	413	0081533-131	810
0090010-31	414	0081533-132	811
0090010-33	417	0081533-232	906B
0090010-42	428	0081533159	1006
0090010-47	434	0081533-206	1075
0090010-47	447	0081515-21	2531
0090010-57	485	00192486-02	2018
0090010-59	492		

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent or in excess of the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation which assures us that all sources of contamination have been remediated.

The NJDEP has one comment in that we request that future reports provide ground water flow direction indications on the well location maps.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

lan R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US



State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

Mr. Dinkerrai Desai

DEPARTMENT OF THE ARMY

HEADQUARTERS, U.S. ARMY COMMUNICATIONS-ELECTRONIC COMMAND
FORT MONMOUTH, NJ 07703-5000

AUG 2 9 2000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County

Dear Mr. Desai:

The NJDEP is in receipt of seventeen (17) UST closure reports dated June 1, 2000. The Army has requested to receive No Further Action approval letters for each of these reports. This letter approves the NFA requests for the following 17 UST located on the Main Post of the Fort Monmouth site:

NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #
0090010—06	80	0081533—226	707
0090010—17	166	0081533—119	745
0081533—5	207A	0081533—160	1076
0081533—211	207B	0081533—161	1076
0081533—57	282	0081533—168	1108
0081533—64	290	00192486—1	2000
0081533—68	295	0081515—62	2700.4
0081533—108	689A	00192486—30	3050
0081533—109	689B		_ .

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent or in excess of the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation which assures us that all sources of contamination have been remediated.

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If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

Ian R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US



State of New Jersey

Christine Todd Whitman

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

Mr. Dinkerrai Desai
Department of the Army
Headquarters, U.S. Army Communications-Electronic Command
Fort Monmouth, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County

OCT 2 3 2000

Dear Mr. Desai:

The NJDEP is in receipt of forty UST closure reports dated September 11, 2000. The Army has requested to receive No Further Action approval letters for each of these reports. This letter approves the NFA requests for the following 40 UST located on the Main Post of the Fort Monmouth site:

NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #
009001004	64B	0081533—79	550	0081533—179	1220F
0090010—09	116B	0081533—116	718	0081533—180	1220E
0090010—09	206B	0081533—202	752	0081533—181	1220D
0081533—56	2 <i>7</i> 5	0081533—14 <i>7</i>	909	0081533182	1220C
0090010-23	276	0081533—152	914	0081533—183	1220B
0090010-25	280	0081533—153	915	00192486—36	2043
0081533—201	286/548A	0081533—204	977	0081515—15	2504A
0081533—62	288	0081533—205	979	0081515—35	2700
0081533—63	289	0081533—16 <i>7</i>	1107	0081515—36	2700
008153366	292	0081533—233	1107B	0081515—3 <i>7</i>	2 <i>7</i> 00
0090010-43	429	0081533—1 <i>7</i> 5	1220J	0081515—38	2 <i>7</i> 00
0090010-52	475	0081533—176	12201	0081515—39	2700
0090010-55	483	0081533—1 <i>77</i>	1220H		
0081533— <i>7</i> 5	500	0081533—1 <i>7</i> 8	1220G		

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent with the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation that assures us that all sources of contamination have been remediated.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

Nan R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US

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James E. McGreevey
Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

Mr. Dinkerrai Desai Department of the Army Headquarters, U.S. Army Communications-Electronic Command Fort Monmouth, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County JAN 1 0 2003

Dear Mr. Desai:

The NJDEP is in receipt of sixty-eight (68) underground storage tank (UST) closure reports dated between July 17, 2001 and May 15, 2002. The Army has requested to receive No Further Action (NFA) approval letters for each of these reports. This letter approves the NFA requests for the following 68 UST that are located on the Main Post of the Fort Monmouth site:

Submittal Date	Building No.	NJDEP Reg. #	Residential
07/17/2001	104	90010-75	NO
07/17/2001	699A	81533-112	NO
07/17/2001	800A	81533-127	NO
07/17/2001	875	81533-234	NO
07/17/2001	949	81533-203	NO
07/17/2001	1220A	81533-184	NO
07/17/2001	2000B	192486-38	NO
01/02/2002	257	81533-200	NO
01/02/2002	283C	81533-229	NO
01/02/2002	290B	81533-224	NO
01/02/2002	290B	81533-225	NO
01/02/2002	491	90010-71	NO
01/02/2002	605	81533-85	NO
01/02/2002	678	81533-105	NO
01/02/2002	699	81533-236	NO
01/02/2002	699	81533-238	NO
01/02/2002	699	81533-237	NO
01/02/2002	699	81533-235	NO.
01/02/2002	801B	81533-129	NO
01/02/2002	804A	81533-130	NO
01/02/2002	2337	81515-65	NO
01/02/2002	2562A	81515-41	NO
01/02/2002	2707	81515-50	NO
01/02/2002	2707	81515-49	NO
01/02/2002	2707	81515-51	NO
01/02/2002	2707	81515-47	NO
01/02/2002	2707	81515-48	NO

Submittal Date	Building No.	NJDEP Reg. #	Residential
02/13/2002	2044	192486-24	NO
02/13/2002	2044	192486-32	NO
02/13/2002	2044	192486-33	NO
02/26/2002	208B	81533-210	YES
03/05/2002	246	N/A	YES
03/05/2002	261B	N/A	YES
05/15/2002	106	90010-74	NO
05/15/2002	164	90010-15	NO
05/15/2002	173	90010-19	NO
05/15/2002	200	81533-2	NO
05/15/2002	208A	81533-6	YES
05/15/2002	233	81533-21	YES
05/15/2002	237	81533-25	YES
05/15/2002	271	81533-55	YES
05/15/2002	277	90010-24	NO
05/15/2002	296B	81533-217	NO
05/15/2002	296B	81533-223	NO
05/15/2002	296B	81533-221	NO
05/15/2002	296B	81533-220	NO
05/15/2002	296B	81533-222	NO
05/15/2002	296B	81533-218	NO
05/15/2002	296B	81533-216	NO
05/15/2002	296B	81533-215	NO
05/15/2002	296B	81533-214	NO
05/15/2002	296B	81533-213	NO
05/15/2002	296B	81533-219	NO
05/15/2002	426	90010-40	NO
05/15/2002	482	90010-54	NO
05/15/2002	600 A	81533-83	NO NO
05/15/2002	600 B	81533-212	NO
05/15/2002	611	81533-87	NO
05/15/2002	615	81533-89	NO
05/15/2002	618	81533-91	NO
05/15/2002	619	81533-92	NO
05/15/2002	621	81533-94	NO
05/15/2002	634	N/A	NO
05/15/2002	638	N/A	NO
05/15/2002	639-2	N/A	NO
05/15/2002	640	N/A	NO
05/15/2002	641	N/A	NO
05/15/2002	644	N/A	NO
05/15/2002	664	. N/A	NO
05/15/2002	666	N/A	NO
05/15/2002	686	81533-107	NO
05/15/2002	697	81533-194	NO
05/15/2002	697	81533-195	NO

:

Submittal Date	Building No.	NJDEP Reg. #	Residential
05/15/2002	697	81533-196	NO
05/15/2002	876B	81533-139	NO
05/15/2002	886	81533-140	NO
05/15/2002	905	81533-145	NO
05/15/2002	1102	81533-162	NO
05/15/2002	1104	81533-164	NO
05/15/2002	2067	192486-37	NO
05/15/2002	2534	81515-24	NO
05/15/2002	2603	81515-60	NO
05/15/2002	2700 2,6	81515-61	NO

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent with the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation that assures us that all sources of contamination have been remediated.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

Sincerely,

Ian R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US

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ATTACHMENT D

UST 206A Report

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 206
Main Post Area

NJDEP UST Registration No. 081533-4 NJDEP Closure Approval No. C-93-2616

Volume 1 of 2
Text, Tables, Figures, Appendices A through F,
and Appendix G, Part 1

February 1996



UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 206

MAIN POST AREA NJDEP UST REGISTRATION NO. 081533-4 CLOSURE APPROVAL NO. C-93-2616

FEBRUARY 1996

PROJECT NO.: 09-5004-01 CONTRACT NO.: DACA51-94-D-0014

PREPARED FOR:

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

PREPARED BY:

SMITH ENVIRONMENTAL TECHNOLOGIES CORPORATION
BROMLEY CORPORATE CENTER
THREE TERRI LANE
BURLINGTON, NEW JERSEY 08016



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	iv
1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES	1
1.1 OVERVIEW 1.2 SITE DESCRIPTION	1
1.2.1 Geological/Hydrogeological Setting	2
1.3 HEALTH AND SAFETY 1.4 REMOVAL OF UNDERGROUND STORAGE TANK	4 4
1.4.1 General Procedures 1.4.2 Underground Storage Tank Excavation and Cleaning	4 4
1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL 1.6 MANAGEMENT OF EXCAVATED SOILS	5 5
2.0 SITE INVESTIGATION ACTIVITIES	6
2.1 OVERVIEW 2.2 FIELD SCREENING/MONITORING 2.3 SOIL SAMPLING 2.4 GROUNDWATER SAMPLING	6 6 7 7
2.4.1 Monitoring Well Installation 2.4.2 Monitoring Well Sampling	7 8
3.0 CONCLUSIONS AND RECOMMENDATIONS	9
3.1 SOIL SAMPLING RESULTS 3.2 GROUNDWATER SAMPLING RESULTS 3.3 CONCLUSIONS AND RECOMMENDATIONS	9 9 10

TABLE OF CONTENTS (CONTINUED)

	Following Page No.
TABLES	
Table 1 Summary of Sampling Activities Table 2 Post-Excavation Soil Sampling Results Table 3 Groundwater Sampling Results	7 9 9
FIGURES	
Figure 1 Site Location Map Figure 2 Site Map Figure 3 Soil Sampling Results Figure 4 Groundwater Sampling Results	1 2 7 7
APPENDICES	
Appendix A NJDEP-BUST Closure Approval Appendix B Certifications Appendix C Waste Manifest Appendix D UST Disposal Certificate Appendix E NJDEP Well Permit and Well Construction Log Appendix F Soil Analytical Data Package Appendix G Groundwater Analytical Data Package	

EXECUTIVE SUMMARY

UST Closure

On October 21, 1993, a fiberglass underground storage tank (UST) was closed by removal in accordance with Closure Approval No. C-93-2616 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-4, was located immediately adjacent to Building 206 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-4 was a fiberglass 4,000-gallon No. 2 diesel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

Site Assessment - Soil

. Fig.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E) (Technical Requirements) and the NJDEP Field Sampling Procedures Manual. Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. Following removal, the UST was inspected for cracks or holes. A pinhole was observed in the side of the UST and potentially contaminated soils were identified in the northwest corner of the UST excavation. Due to OVA readings of over 100 ppm, and visible free product in the excavation, a discharge was reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-16 was assigned.

On October 21, 1993, following removal of the UST and approximately 20 cubic yards of potentially contaminated soils, post-excavation soil samples were collected. Post-excavation samples D, E, F, G, H, and DUP E were collected from a total of five (5) locations along the sidewalls of the excavation immediately above groundwater. Groundwater was present in the excavation at approximately 6 feet below ground surface (BGS). Although no fuel lines were found, post-excavation soil samples A, B, and C were collected from the base of the assumed location of the former fuel lines in the excavation, which was approximately 54 feet. All samples were analyzed for total petroleum hydrocarbons (TPHC).

Findings - Soil

All samples collected from the UST excavation and from below the assumed location of piping associated with the UST contained concentrations of TPHC below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). TPHC levels ranged in concentration from 15.7 mg/kg to 384.0 mg/kg.

Site Restoration

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

Site Assessment - Groundwater

In response to the observation of possible contamination on the water table in the excavation, one shallow overburden monitoring well (MW-1) was installed at the Building 206 area on September 22, 1994. It was installed approximately 29 feet east of the UST excavation in the assumed downgradient direction. It was screened in the 2.5-to 12.5-foot depth interval, across the water table, which is approximately 4.0 feet below grade surface.

On May 18, 1995 and June 13, 1995, MW-1 was sampled for volatile organic compounds (VOCs) plus 10 tentatively identified compounds with xylene, and semivolatile organic compounds (BNCs) plus 15 tentatively identified compounds. Sampling and analysis were performed in accordance with the NJDEP Field Sampling Procedures Manual, and the Technical Requirements.

Findings - Groundwater

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

The sample collected from MW-1 on May 18, 1995, contained a methylene chloride concentration of 1.4 micrograms per liter (ug/l). All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. It should be noted that the trip blank and the field blank collected on May 18, 1995 also contained a methylene chloride concentration, both of which were 5.1 ug/l. Di-n-butylphthalate was detected at a concentration of 55 ug/l in the field blank. No other compounds were detected in the trip and field blanks.

The sample collected from MW-1 on June 13, 1995, contained a methylene chloride concentration of 2.0 ug/l. All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. The trip blank and the field blank collected on June 13, 1995 also contained a methylene chloride concentration of 2.3 ug/l, and 2.1 ug/l, respectively. No other compounds were detected in the trip and field blanks.

The depth to the water table on May 18, 1995 was approximately 4.15 feet below grade. The depth to the water table on June 13, 1995 was approximately 4.50 feet below grade.

Site Assessment Quality Assurance

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

Conclusions and Recommendations

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

Based on the analytical results of the groundwater samples collected on May 18, 1995, and on June 13, 1995, groundwater quality at the Building 206 UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and BNCs. The trace concentrations of methylene chloride detected during both rounds is attributed to sampling and/or analytical interference, based on the detection of methylene chloride, a common source of laboratory interference, in the sampling blank.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-4 at Building 206.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

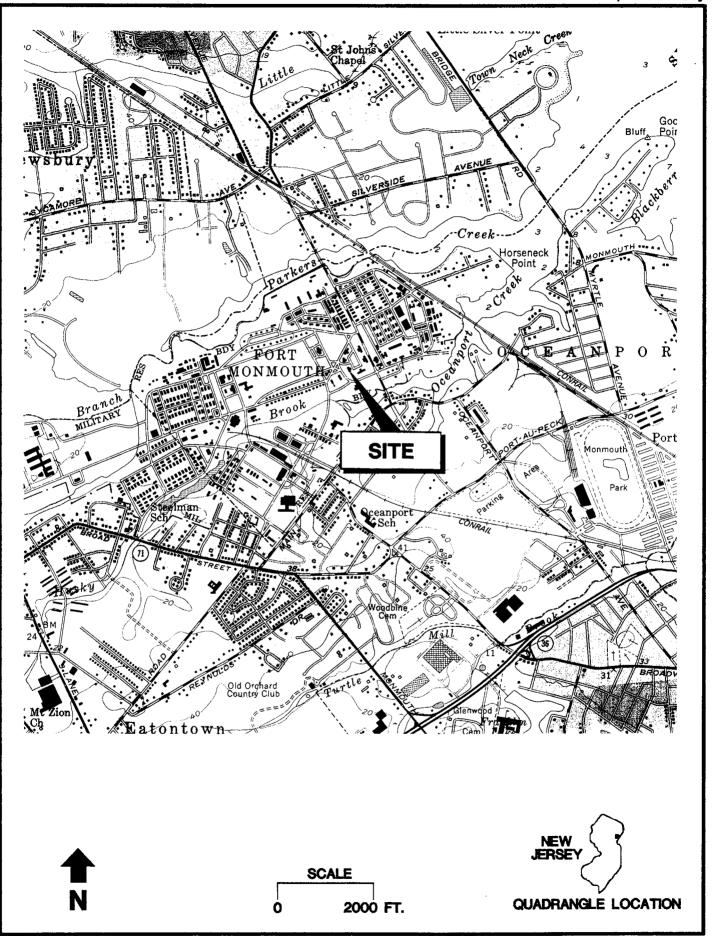
One fiberglass underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-4, was closed at Building 206 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey, on October 21, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on June 6, 1993. The plan was approved on July 12, 1993 and assigned TMS No. C-93-2616. The UST was registered as a steel 4,000-gallon No. 2 fuel oil UST. It is likely that UST No. 081533-4 was originally a 4,000-gallon steel tank that was later replaced by a 4,000-gallon fiberglass, No. 2 fuel oil UST, however no documentation of this replacement is available.

Decommissioning activities for UST No. 081533-4 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-4 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and the signed certifications for UST No. 081533-4 are included in Appendices A and B, respectively.

Based on an inspection of the UST, and field screening of subsurface soils, the DPW has concluded that a historical discharge was associated with the UST. Based on this observation a spill was reported to the NJDEP "Hotline" for UST No. 081533-4 and assigned Spill Case No. 93-10-21-1910-16.

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

This report was prepared using information required at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and



Project No. 00-5004-01

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Site Location Map

recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

1.2 SITE DESCRIPTION

Building 206 is located in the eastern portion of the Main Post area of Fort Monmouth as shown on Figure 1. UST No. 081533-4 was located southeast of Building 206. The USTs piping was not found, and was assumed to have been previously removed. The USTs former piping was assumed to have run approximately 54 feet southeast from Building 206 to the fill port area. A site map is provided on Figure 2. The fill port area was located directly above the UST and adjacent to an asphalt parking lot for easy access.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 206. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

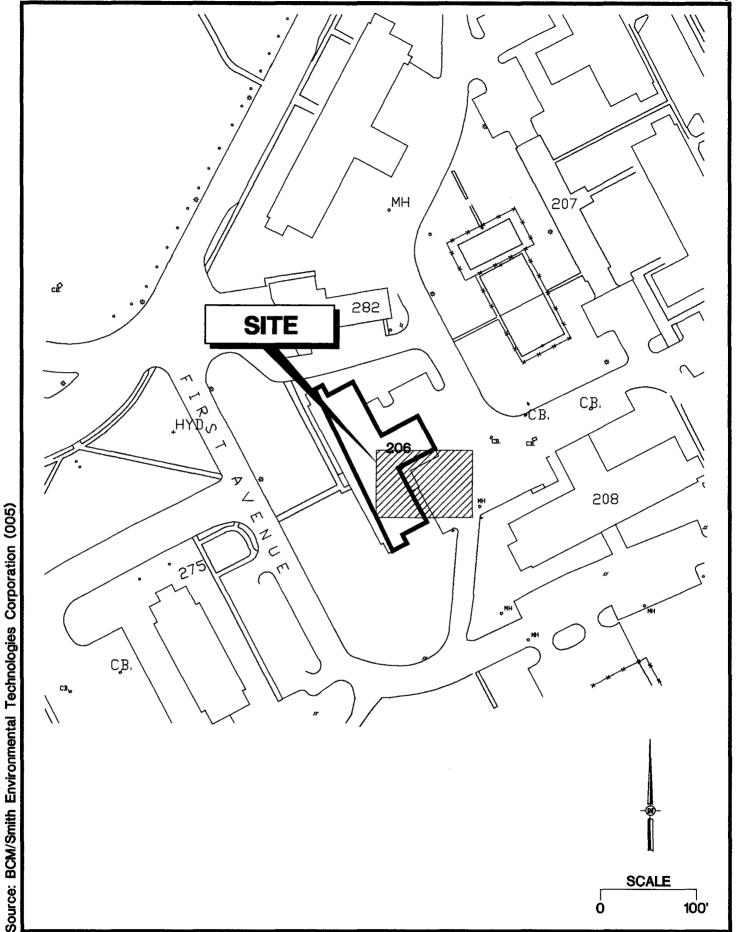
Regional Geology

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

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

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

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



Project No. 09-5004-01

Figure 2 **Bullding 206 Site Map**

Local Geology

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

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

Hydrogeology

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

Based on records of wells drilled at the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (BGS). The depth to the water table measured on September 22, 1994 in the Building 206 monitoring well (MW-1), was approximately 4.0 feet below grade. According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore the direction of shallow groundwater should be determined on a case by case basis.

Shallow groundwater is locally influenced within the Main Post area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries)
- topography
- nature of the fill material within the Main Post area

- · presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)

Building 206 is located approximately 900 feet north of Oceanport Creek, the nearest water body.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was excavated to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was

completely emptied of all liquids prior to removal from the ground. Approximately 640 gallons of liquid were transported by Freehold Cartage Inc., to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal facility located in Old Bridge, New Jersey. Refer to Appendix C for waste manifest (manifest No. NJA-1706540).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for corrosion holes. A pin hole was observed in the side of the UST during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. A thin layer of free product was observed in the northwest corner of the excavation and OVA readings were >100 ppm.

Approximately 20 cubic yards of potentially contaminated soils were excavated and transported to the T-80 storage area within Main Post, and were covered with tarps.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by CUTE Inc. to Monmouth County Reclamation Center, for recycling in compliance with all applicable regulations and laws. Refer to Appendix D for UST disposal certificate.

The Subsurface Evaluator labeled the UST prior to transport with the following information:

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, approximately 20 cubic yards of potentially contaminated soils were excavated from the area surrounding the former location of the UST. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to the T-80 storage area within Main Post prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.



2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities.

• Closure Contractor: Cleaning Up The Environment Inc. (CUTE)

Contact Person: Nancy Williams Phone Number: (201)427-2881

NJDEP Company Certification No.: 02200128

• Subsurface Evaluator: Charles M. Appleby Employer: U.S. Army, Fort Monmouth

Phone Number: (908) 532-6224 NJDEP Certification No.: 002056

• Analytical Laboratory: U.S. Army, Fort Monmouth Environmental

Laboratory

Contact Person: Brian K. McKee Phone Number: (908)532-4359

NJDEP Company Certification No.: 13461

Hazardous Waste Hauler: Freehold Cartage, Inc.

Contact Person: Barry Olsen Phone Number: (908)462-1001

NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP certified sub-surface evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed

from the excavation surrounding UST No. 081533-4 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On October 21, 1993, post-excavation soil samples D, E, F, G, H, and DUP E were collected from a total of five (5) locations along the sidewalls of the UST excavation immediately above groundwater. Groundwater was present in the excavation at approximately 6 feet BGS. On October 21, 1993, post-excavation soil samples A, B, and C were also collected from immediately below the assumed former location of piping associated with the UST. Refer to soil sampling location map on Figure 3. All samples were analyzed for total petroleum hydrocarbons (TPHC). Because none of the soil samples exhibited a concentration of contaminants exceeding 1,000 milligrams per kilogram (mg/kg), none were analyzed for volatile organic compounds with a forward library search for 10 tentatively identified contaminants (VO+10).

The site assessment was performed by U.S. Army personnel in accordance with the *Technical Requirements* and the *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided on Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 768 mg/kg still below the applicable NJDEP cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army, Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey for analysis.

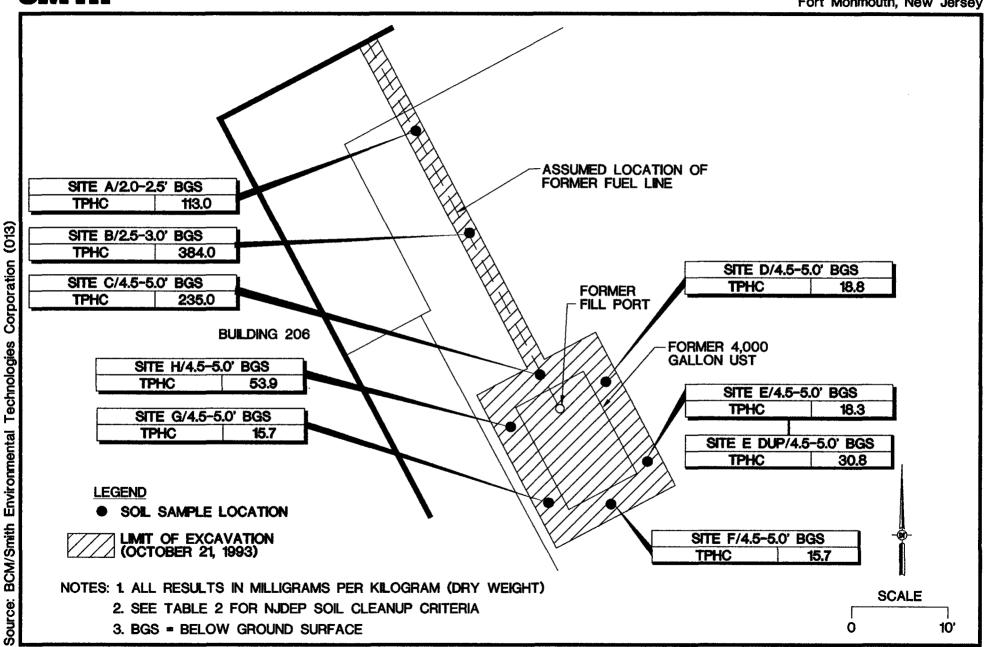
2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of possible contamination on the water table in the excavation, one shallow overburden monitoring well (MW-1) was installed at the Building 206 area on September 22, 1994. It was installed approximately 29 feet east of the UST excavation in the assumed downgradient direction. A monitoring well location map is provided on Figure 4. The well was screened in the 2.5- to 12.5-foot depth interval, across the water table, which is approximately 4.0 feet below grade surface.

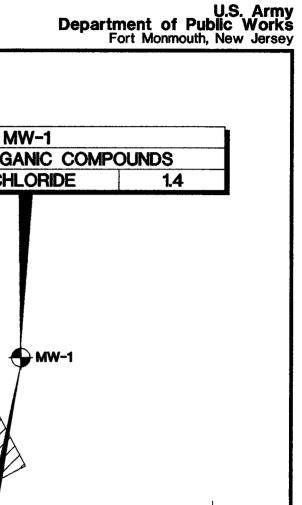
The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual*. The NJDEP well permit and a well construction log are presented in Appendix E.

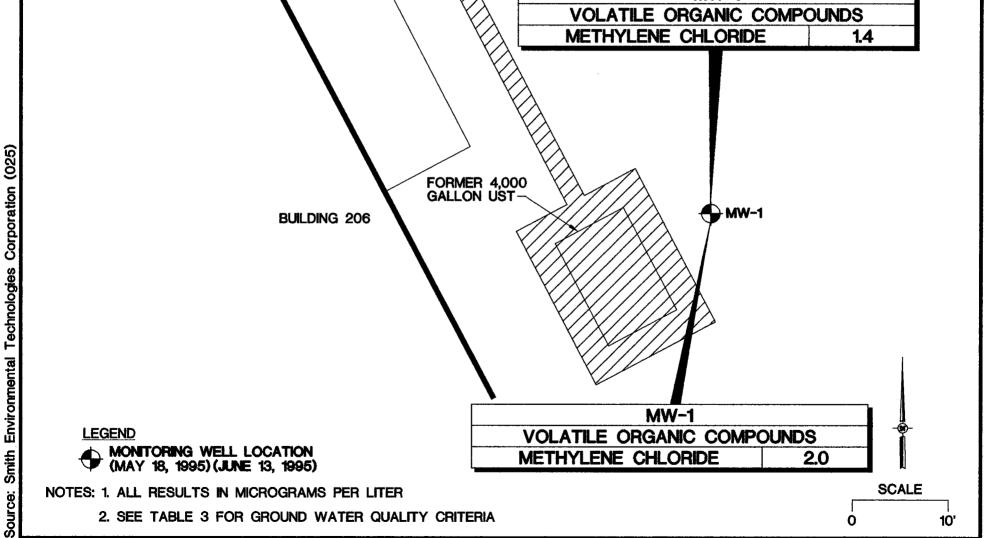
U.S. Army Department of Public Works Fort Monmouth, New Jersey



Project No. 09-5004-01

Figure 3 **Building 206 Soil Sampling Results**





Project No. 09-5004-01

Figure 4 Building 206 **Groundwater Sampling Results**

TABLE 1 SUMMARY OF SAMPLING ACTIVITIES **BUILDING 206, MAIN POST** FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
Α	10/21/93	Soil	Post-Excavation	ТРНС	Polystyrene Scoop
В	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C ·	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
G	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
H	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
DUP E	10/21/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
MW-1	5/18/95	Aqueous	Groundwater	VOC, BNC	Teflon Bottom Bailer
MW-1	6/13/95	Aqueous	Groundwater	VOC, BNC	Teflon Bottom Bailer

*Note:

TPHC - Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
 VOC - Volatile Organic Compounds plus 10 tentatively identified compounds (Method 524.2 / aqueous)
 BNC - Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)

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

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to 6 inches BGS. The well was secured with a water-tight, flush-mounted locking road box. The road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

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

2.4.2 Monitoring Well Sampling

On May 18, 1995 and June 13, 1995, MW-1 was sampled for volatile organic compounds plus 10 tentatively identified compounds with xylene, and semivolatile organic compounds plus 15 tentatively identified compounds. Sampling and analysis were completed in accordance with the *Field Sampling Procedures Manual* and the *Technical Requirements*.

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

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of eight (8) locations on October 21, 1993. All samples were analyzed for TPHC. The post-excavation soil sample results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided on Table 2 and the soil sampling results are shown on Figure 3. The soil analytical data package summary is provided in Appendix F. The full data package, including associated quality control data, is on file at the U.S. Army Fort Monmouth, DPW.

All post-excavation soil samples collected on October 21, 1993, from the UST excavation and from below the assumed location of the former piping associated with the UST, contained TPHC concentrations below the NJDEP soil cleanup criteria. All samples contained TPHC concentrations ranging from 15.7 mg/kg to 384 mg/kg.

Based on visible oil in the excavation, and a pinhole in the side of the UST, a discharge was reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-16 was assigned.

3.2 GROUNDWATER SAMPLING RESULTS

The groundwater sampling results are listed in Table 3 and shown on Figure 4. The laboratory documentation is in Appendix G. All VOC and BNC results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC). No product or sheen was observed in MW-1.

The sample collected from MW-1 on May 18, 1995, contained a methylene chloride concentration of 1.4 micrograms per liter (ug/l). All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. It should be noted that the trip blank and the field blank collected on May 18, 1995 also contained a methylene chloride concentration, both of which were 5.1 ug/l. Di-n-butylphthalate was detected at a concentration of 55 ug/l in the field blank. No other compounds were detected in the trip and field blanks.

The sample collected from MW-1 on June 13, 1995, contained a methylene chloride concentration of 2.0 ug/l. All other groundwater analytical results from MW-1 contained non-detectable concentrations of contaminants. The trip blank and the field blank collected on June 13, 1995 also contained a methylene chloride concentration of 2.3 ug/l, and 2.1 ug/l, respectively. No other compounds were detected in the trip and field blanks. The depth to the

TABLE 2 POST-EXCAVATION SOIL SAMPLING RESULTS BUILDING 206, MAIN POST FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/2.0-2.5'	1294.1	10-21-93	10-22-93	Total Solid			80%		
				TPHC	3.3	yes	113.0	10,000	
B/2.5-5.0'	1294.2	10-21-93	10-22-93	Total Solid			80%		
				TPHC	20.0	yes	384.0	10,000	
C/4.5-5.0'	1294.3	10-21-93	10-22-93	Total Solid			84%		
				TPHC	3.3	yes	235.0	10,000	
D/4.5-5.0'	1294.4	10-21-93	10-22-93	Total Solid			84%	44 45	
				TPHC	3.3	yes	18.8	10,000	
E/4.5-5.0'	1294.5	10-21-93	10-22-93	Total Solid	·		86%		
				TPHC	3.3	yes	18.3	10,000	
F/4.5-5.0'	1294.6	10-21-93	10-22-93	Total Solid	. 		80%		
				TPHC	3.3	yes	15.7	10,000	
G/4.5-5.0'	1294.7	10-21-93	10-22-93	Total Solid	-		80%		
./				TPHC	3.3	yes	15.7	10,000	
H/4.5-5.0'	1294.8	10-21-93	10-22-93	Total Solid			83%		
				TPHC	3.3	yes	53.9	10,000	
DUP E/4.5-5.0'	1294.9	10-21-93	10-22-93	Total Solid			86%		
				TPHC	3.3	yes	30.8	10,000	

Note:

* Cleanup criteria for total organics
-- Not applicable / does not exceed criteria
TPHC Total Petroleum Hydrocarbons

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

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TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 1 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	Dichlorodifluoromethane	0.50		ND		
			Chloromethane	0.50		ND		
			Bromomethane	0.50		ND		
			Vinyl Chloride	0.50		ND	5	
			Chloroethane	0.50		ND		
			Trichlorofluoromethane	0.50		ND		
			Methylene Chloride	0.50		1.4 B	2	
			1,2-Dichloroethene (trans)	0.50		ND	100*	
			1,1-Dichloroethene	0.50		ND	2*	
			1,1 Dichloroethane	0.50		ND	70	
			2,2-Dichloropropane	0.50	·	ND		
			Bromochloromethane	0.50	. 	ND		
		•	cis-1,2-Dichloroethene	0.50		ND	10*	
-			Chloroform	0.50		ND	6	
			1,1-Dichloropropene	0.50		ND		
			1,2-Dichloroethane	0.50		ND	2	
			1,1,1-Trichloroethane	0.50	2010	ND	30	
			Dibromomethane	0.50		ND		
			Carbon Tetrachloride	0.50		ND	2	
			Bromodichloromethane	0.50		ND	1	
			1,2-Dichloropropane	0.50		ND	1	
			cis-1,3-Dichloropropene	0.50		ND	NA	
			1,3-Dichloropropane	0.50		ND		
			Trichloroethene	0.50		ND	1	
			Dibromochloromethane	0.50		ND	10	

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 2 OF 36

Sample ID	Sample Analysis Date Date		Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	1,1,2-Trichloroethane	0.50		ND	3	
			Benzene	0.50	yes	ND	1	
			trans-1,3-Dichloropropene	0.50		ND	NA	
•			Bromoform	0.50		ND	4	
			1,1,2,2-Tetrachloroethane	0.50		ND	10	
			Tetrachloroethene	0.50		ND	1*	
			1,1,2,2-Tetrachloroethane	0.50		ND	2	
			Toluene	0.50	yes	ND	1,000	
			1,2-Dibromoethane	0.50		ND		
			Chlorobenzene	0.50		ND	4	
			Ethylbenzene	0.50	yes	ND	700	'
			Xylenes (Total)	0.50	yes	ND	40	
			Styrene	0.50		ND	100	
			Isopropylbenzene	0.50		ND		
			Bromobenzene	0.50		ND		
			1,2,3-Trichloropropane	0.50		ND		
			n-Propylbenzene	0.50		ND		**
		•	2-Chlorotoluene	0.50		ND		
			4-Chlorotoluene	0.50		ND		••
			1,3,5-Trimethylbenzene	0.50		ND		<u></u>
			tert-Butylbenzene	0.50		ND		
			1,2,4-Trimethylbenzene	0.50		ND		
			sec-Butylbenzene	0.50		ND		
			1,3-Dichlorobenzene	0.50		ND	600	
		4	1,4-Dichlorobenzene	0.50		ND	75	

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 3 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	4-Isopropyltoluene	0,50	Sente	ND	ere	
		5. C = . C C	1,2-Dichlorobenzene	0.50		ND	600	
			n-Butylbenzene	0.50		ND		
			1,2-Dibromo-3-chloropropane	0.50	**	ND	NA	~~
			1,2,4-Trichlorobenzene	0.50		ND	9	
			Hexachlorobutadiene	0.50		ND	1	
			Naphthalene	0.50		ND		
			1,2,3-Trichlorobenzene	0.50		ND	•	

Notes:

- * The tetrachloroethene, 1,2-Dichloroethene(trans), 1,1-Dichloroethene, and cis-1,2-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachlororethylene, 1,2-Dichloroethylene(trans), 1,1-Dichloroethylene, and cis-1,2-Dichloroethylene).
- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected
- (NA) Not available for this constituent
- GWQC Ground Water Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 4 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	NO TICS FOUND		·			

Note:

- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILES

PAGE 5 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceed Criteria
MW-1	5/18/95	6/02/95	N-Nitrosodiethylamine	2		ND	20	
		-, -, -, -	bis(2 chloroethyl)Ether	1		ND	10	
			1,3-Dichlorobenzene	2		ND	600	
		•	1,4-Dichlorobenzene	1		ND	75	
			1,2-Dichlorobenzene	2		ND	600	
			bis(2-chloroisopropyl)Ether	5		ND	300	
			N-Nitroso-Di-n-propylamine	2		ND	20	
			Hexachloroethane	1		ND	10	
			Nitrobenzene	2		ND	10	
			Isophorone	1		ND	100	
			bis(2-Chloroethoxy)Methane	3		ND		
			1,2,4-Trichlorobenzene	2		ND	9	
			Naphthalene	2		ND		
			Hexachlorobutadiene	. 2		ND	1	
			Hexachlorocyclopentadiene	12	- L	ND	50	
			2-Chloronaphthalene	1		ND		
			Dimethyl Phthalate	1		ND		
			Acenaphthylene	5		ND	NA	
			2,6-Dinitrotoluene	2		ND	NA	
			Acenaphthene	3		ND	400	
			2,4-Dinitrotoluene	3		ND	10	•••
			Diethylphthalate	1		ND	5,000	
			Fluorene	3		ND	300	
			4-Chlorophenyl-phenlyether	3		ND		
			N-Nitrosodiphenylamine	6		ND	20	
			1,2-Diphenylhydrazine	6		ND	0.04	
			4-Bromophenyl-phenylether	2		ND		
			Hexachlorobenzene	2		ND	10	
			Phenanthrene	2		ND	NA	

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILES (Continued)

PAGE 6 OF 36

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/02/95	Anthracene	2		ND	2,000	
			Di-n-butylphthalate	5		ND	900	·
			Fluoranthene	1		ND	300	
			Benzidine	1		ND	50	
			Pyrene	2		ND	200	
			Butylbenzylphthalate	9		ND	100	
			Benzo(a)Anthracene	2		ND	NA	
			3,3-Dichlorobenzidine	15		ND	60	 ·
			Chrysene	2		ND ·	NA	
			bis(2-Ethylhexyl)Phthalate	4		ND	30	
			Di-n-Octyl Phthalate	2		ND	100	
			Benzo(b)Fluoranthene	1		ND	NA	
			Benzo(k)Fluoranthene	2		ND	NA	
			Benzo(a)Pyrene	2		ND	NA	
			Indeno(1,2,3-cd)pyrene	2		ND	NA	
			Dibenzo(a,h)anthracene	3		ND	NA	
			Benzo(g,h,i)perylene	2		ND	NA	

Notes:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

(NA) Not available for this constituent

GWQC Ground Water Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILE TICS

PAGE 7 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/20/95	Bis(2-methoxyethyl)phthalate			50.0 J		.

Note:

-- Not applicable / does not exceed criteria
(J) Indicates detected below sample quantitation limit
(B) Indicates also present in blank
(ND) Indicates compound not detected
GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 8 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	Dichlorodifluoromethane	0.50		ND
Tip Dank	5/16/75	0,021,75	Chloromethane	0.50		ND
			Bromomethane	0.50		ND
			Vinyl Chloride	0.50		ND
		•	Chloroethane	0.50		ND
			Trichlorofluoromethane	0.50		ND
			Methylene Chloride	0.50		5.1 B
			1,2-Dichloroethene (trans)	0.50		ND
			1,1-Dichloroethene	0.50		ND
			1,1 Dichloroethane	0.50		ND
			2,2-Dichloropropane	0.50		ND
			Bromochloromethane	0.50		ND
			cis-1,2-Dichloroethene	0.50		ND
			Chloroform	0.50		ND
			1,1-Dichloropropene	0.50		ND
			1,2-Dichloroethane	0.50		ND
			1,1,1-Trichloroethane	0.50		ND
	**		Dibromomethane	0.50		ND
			Carbon Tetrachloride	0.50		ND
			Bromodichloromethane	0.50		ND
			1,2-Dichloropropane	0.50		ND
			cis-1,3-Dichloropropene	0.50		ND
			1,3-Dichloropropane	0.50		ND
			Trichloroethene	0.50		ND
			Dibromochloromethane	0.50		ND

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 9 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	1,1,2-Trichloroethane	0,50		ND
•			Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50		ND
			Bromoform	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Tetrachloroethene	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND ·
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50		ND
			Chlorobenzene	0.50		ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50		ND
		•	Isopropylbenzene	0.50		ND
			Bromobenzene	0.50	 ,	ND
			1,2,3-Trichloropropane	0.50		ND
			n-Propylbenzene	0.50		ND
•			2-Chlorotoluene	0.50		ND
			4-Chlorotoluene	0.50		ND
			1,3,5-Trimethylbenzene	0.50		ND
			tert-Butylbenzene	0.50		ND
			1,2,4-Trimethylbenzene	0.50		ND
			sec-Butylbenzene	0.50		ND
	•		1,3-Dichlorobenzene	0.50		ND
			1,4-Dichlorobenzene	0.50		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 10 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	4-Isopropyltoluene	0.50		ND
Tip Diam	3/10/73	0/02/75	1,2-Dichlorobenzene	0.50		ND
			n-Butylbenzene	0.50		ND
			1,2-Dibromo-3-chloropropane	0.50		ND
			1,2,4-Trichlorobenzene	0.50		ND
			Hexachlorobutadiene	0.50		ND
			Naphthalene	0.50		ND
			1,2,3-Trichlorobenzene	0.50		ND

Notes:

Not applicable / does not exceed criteria Indicates detected below sample quantitation limit **(J)**

(B) Indicates also present in blank

Indicates compound not detected (ND)

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 11 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	5/18/95	6/02/95	NO TICS FOUND			

Note:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 12 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	Dichlorodifluoromethane	0,50		ND
1 icia Diank	3/10/73	0/01/25	Chloromethane	9.50		ND
			Bromomethane	0.50		ND
		•	Vinyl Chloride	0.50	<u>_</u>	ND
			Chloroethane	0.50		ND
			Trichlorofluoromethane	0.50		ND
			Methylene Chloride	0.50	~-	5.1 B
			1,2-Dichloroethene (trans)	0.50		ND
			1,1-Dichloroethene	0.50		ND
			1,1 Dichloroethane	0.50		ND
			2,2-Dichloropropane	0.50		ND
			Bromochloromethane	0.50	•••	ND
			cis-1,2-Dichloroethene	0.50		ND
			Chloroform	0.50		ND
			1,1-Dichloropropene	0.50		ND
		•	1,2-Dichloroethane	0.50		ND
			1,1,1-Trichloroethane	0.50		ND
			Dibromomethane	0.50		ND
	'		Carbon Tetrachloride	0.50		ND
			Bromodichloromethane	0.50		ND
			1,2-Dichloropropane	0.50		ND
			cis-1,3-Dichloropropene	0.50		ND
			1,3-Dichloropropane	0.50		ND
			Trichloroethene	0.50		ND
			Dibromochloromethane	0,50		ND

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 13 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	1,1,2-Trichloroethane	0,50		ND
	0,10,70	0,02,70	Benzene	0.50	yes	ND
		•	trans-1,3-Dichloropropene	0.50		ND
			Bromoform	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Tetrachloroethene	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		. ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50		ND
			Chlorobenzene	0.50		ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50		ND
			Isopropylbenzene	0.50	~~	ND
			Bromobenzene	0.50		ND
			1,2,3-Trichloropropane	0.50		ND ·
			n-Propylbenzene	0.50		ND
	4,		2-Chlorotoluene	0.50		ND
			4-Chlorotoluene	0.50		ND
			1,3,5-Trimethylbenzene	0.50		ND
			tert-Butylbenzene	0.50		ND
			1,2,4-Trimethylbenzene	0.50		ND
			sec-Butylbenzene	0.50		ND
			1,3-Dichlorobenzene	0.50		ND
			1,4-Dichlorobenzene	0.50		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 14 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/01/95	4-Isopropyltoluene	0.50		ND '
	0, 10, 20	2,02,70	1,2-Dichlorobenzene	0.50	=	ND
			n-Butylbenzene	0.50		ND
			1,2-Dibromo-3-chloropropane	0.50		ND
			1,2,4-Trichlorobenzene	0.50		ND
			Hexachlorobutadiene	0.50		ND
			Naphthalene	0.50		ND
			1,2,3-Trichlorobenzene	0.50		ND
37.4						

Notes:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 15 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Quantitation of Limit (ug/l) Concern	Quantitation of		Result (ug/l)
Field Blank	5/18/95	6/02/95	NO TICS FOUND				

Note:

- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY SEMIVOLATILES

PAGE 16 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
E: 11 D1 1	5110105	6/00/05	NT NT'4 1' 41 1 1') ID
Field Blank	5/18/95	6/02/95	N-Nitrosodiethylamine	2		ND
			bis(2 chloroethyl)Ether	1		ND
			1,3-Dichlorobenzene	2		ND
	7		1,4-Dichlorobenzene	1		ND
			1,2-Dichlorobenzene	2		ND
			bis(2-chloroisopropyl)Ether	5		ND
			N-Nitroso-Di-n-propylamine	2		ND
			Hexachloroethane	1		ND
			Nitrobenzene	2		ND
			Isophorone	1		ND
			bis(2-Chloroethoxy)Methane	3		ND
			1,2,4-Trichlorobenzene	2		ND
			Naphthalene	2		ND
			Hexachlorobutadiene	2		ND
i		•	Hexachlorocyclopentadiene	12		ND
			2-Chloronaphthalene	1		ND
			Dimethyl Phthalate	1		ND
			Acenaphthylene	5		ND
	•		2,6-Dinitrotoluene	2		ND
			Acenaphthene	3		ND
			2,4-Dinitrotoluene	3		ND
			Diethylphthalate	1		ND
			Fluorene	3		ND
			4-Chlorophenyl-phenlyether	3		ND
			N-Nitrosodiphenylamine	6		ND ND
			1,2-Diphenylhydrazine	6		ND
			4-Bromophenyl-phenylether	2		ND ND
			Hexachlorobenzene	2		ND ND
			Phenanthrene	. 2		ND ND
			r nenantinene	L		עאו

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY SEMIVOLATILES (Continued)

PAGE 17 OF 36

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	Anthracene	2		ND
			Di-n-butylphthalate	5		55
			Fluoranthene	1 .		ND
			Benzidine	1		ND
			Pyrene	2		ND
			Butylbenzylphthalate	. 9		ND
			Benzo(a) Anthracene	2		ND
	•		3,3-Dichlorobenzidine	15		ND
			Chrysene	2		ND
			bis(2-Ethylhexyl)Phthalate	4 .		ND
			Di-n-Octyl Phthalate	2 .		ND
			Benzo(b)Fluoranthene	1		ND
			Benzo(k)Fluoranthene	2	·	ND
			Benzo(a)Pyrene	2		ND
			Indeno(1,2,3-cd)pyrene	2		ND
			Dibenzo(a,h)anthracene	3	 ·	ND
			Benzo(g,h,i)perylene	2		ND
Notes: Not a	applicable / doe	s not exceed crit	eria			
(I) Indic	rates detected he	elow sample ona	entitation limit			

- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BALNK FORT MONMOUTH, NEW JERSEY SEMIVOLATILE TICS

PAGE 18 OF 36

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	5/18/95	6/02/95	Unknown			14.0 J

Note:

- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 19 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	Dichlorodifluoromethane	0.50	u=	ND		
			Chloromethane	0.50		ND		
			Bromomethane	0.50		ND		
			Vinyl Chloride	0.50		ND	5	
			Chloroethane	0.50		ND .		
			Trichlorofluoromethane	0.50		ND		
			Methylene Chloride	0.50		2.0 B	2	·
			1,2-Dichloroethene (trans)	0.50		ND	100*	
			1,1-Dichloroethene	0.50		ND	2*	
			1,1 Dichloroethane	0.50		ND	70	
			2,2-Dichloropropane	0.50		ND		
			Bromochloromethane	0.50		ND		
			cis-1,2-Dichloroethene	0.50		ND	10*	
			Chloroform	0.50	-	ND	6	
			1,1-Dichloropropene	0.50	· 	ND		
			1,2-Dichloroethane	0.50		ND	2	
			1,1,1-Trichloroethane	0.50		ND	30	
			Dibromomethane	0.50		ND		
			Carbon Tetrachloride	0.50		ND	2	
			Bromodichloromethane	0.50		ND	1	
			1,2-Dichloropropane	0.50		ND	1	
			cis-1,3-Dichloropropene	0.50		ND	NA ·	
			1,3-Dichloropropane	0.50		ND		
			Trichloroethene	0.50		ND	1	
			Dibromochloromethane	0.50		ND	10	

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 20 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	1,1,2-Trichloroethane	0.50		ND	3	
11211	0, 20, 70	0,21,75	Benzene	0.50	yes	ND	1	
			trans-1,3-Dichloropropene	0.50		ND	NA	
			Bromoform	0.50		ND	4	
			1,1,2,2-Tetrachloroethane	0.50		ND	10	
			Tetrachloroethene	0.50		ND	1*	
		•	1,1,2,2-Tetrachloroethane	0.50		ND	2	
	•		Toluene	0.50	yes	ND	1,000	
			1,2-Dibromoethane	0.50		ND	•••	
			Chlorobenzene	0.50		ND	4	
			Ethylbenzene	0.50	yes	ND	700	
			Xylenes (Total)	0.50	yes	ND	40	
			Styrene	0.50		ND	100	
			Isopropylbenzene	0.50		ND		
			Bromobenzene	0.50	·	ND		
			1,2,3-Trichloropropane	0.50		ND		
			n-Propylbenzene	0.50		ND		
			2-Chlorotoluene	0.50		ND		
			4-Chlorotoluene	0.50		ND		
			1,3,5-Trimethylbenzene	0.50		ND		
			tert-Butylbenzene	0.50		ND		
			1,2,4-Trimethylbenzene	0.50		ND		
	*		sec-Butylbenzene	0.50		ND	 .	
			1,3-Dichlorobenzene	0.50		ND	600	
			1,4-Dichlorobenzene	0.50		ND	75	

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 21 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/21/95	4-Isopropyltoluene	0.50		ND		
11111111	0.20.70	0.22.70	1,2-Dichlorobenzene	0.50		, ND	600	
			n-Butylbenzene	0.50		ND		
	•		1,2-Dibromo-3-chloropropane	0.50		ND	NA	
			1,2,4-Trichlorobenzene	0.50		ND	9	
			Hexachlorobutadiene	0.50		ND	1	
			Naphthalene	0.50	••	ND		
			1,2,3-Trichlorobenzene	0.50		ND		

Notes:

- * The tetrachloroethene, 1,2-Dichloroethene(trans), 1,1-Dichloroethene, and cis-1,2-Dichloroethene results were compared to the GWQC for their respective synonym (tetrachlororethylene, 1,2-Dichloroethylene(trans), 1,1-Dichloroethylene, and cis-1,2-Dichloroethylene).
- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected
- (NA) Not available for this constituent
- GWQC Ground Water Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 22 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/98	6/21/95	NO TICS FOUND		·			

Note:

Not applicable / does not exceed criteria

Indicates detected below sample quantitation limit **(**J)

Indicates also present in blank (B)

(ND) Indicates compound not detected GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILES

PAGE 23 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceed Criteria
MW-1	6/13/95	6/26/95	N-Nitrosodiethylamine	2		ND	20	
			bis(2 chloroethyl)Ether	. 1	geria.	ND	10	
			1,3-Dichlorobenzene	2		ND	600	
			1,4-Dichlorobenzene	1		ND	75	
			1,2-Dichlorobenzene	2		ND	600	
			bis(2-chloroisopropyl)Ether	5		ND	300	
			N-Nitroso-Di-n-propylamine	2		ND	20	
			Hexachloroethane	1		ND	10	
			Nitrobenzene	2		ND	10	
			Isophorone	1		ND	100	
			bis(2-Chloroethoxy)Methane	3		ND		
			1,2,4-Trichlorobenzene	2		ND	9	
			Naphthalene	2		ND		
			Hexachlorobutadiene	2		ND	1	
			Hexachlorocyclopentadiene	12		ND	50	
			2-Chloronaphthalene	1		ND		
			Dimethyl Phthalate	1		ND		
			Acenaphthylene	5		ND	NA	
			2,6-Dinitrotoluene	2		ND	NA	
			Acenaphthene	3		ND	400	
			2,4-Dinitrotoluene	3		ND	10	
			Diethylphthalate	1		ND	5,000	
			Fluorene	3		ND	300	
			4-Chlorophenyl-phenlyether	3		ND		
			N-Nitrosodiphenylamine	. 6		ND	20	
			1,2-Diphenylhydrazine	6		ND	0.04	
			4-Bromophenyl-phenylether	2		ND		
			Hexachlorobenzene	2		ND	10	
			Phenanthrene	2		ND	NA	

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILES (Continued)

PAGE 24 OF 36

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/26/95	Anthracene	2		ND	2,000	
			Di-n-butylphthalate	5		ND	900	
			Fluoranthene	1		ND	300	
			Benzidine	1		ND	50	
			Pyrene	2		ND	200	
			Butylbenzylphthalate	9	 .	ND	100	
			Benzo(a)Anthracene	2		ND	NA	
			3,3-Dichlorobenzidine	-15		ND	60	
			Chrysene	2		ND	NA	
			bis(2-Ethylhexyl)Phthalate	4		ND	30	
		•	Di-n-Octyl Phthalate	2		ND	100	
			Benzo(b)Fluoranthene	1		ND	NA	
			Benzo(k)Fluoranthene	2		ND	NA	
			Benzo(a)Pyrene	2		ND	NA	
			Indeno(1,2,3-cd)pyrene	2		ND	NA	
			Dibenzo(a,h)anthracene	3		ND	NA	
			Benzo(g,h,i)perylene	2		ND	NA	

Notes:

-- Not applicable / does not exceed criteria

- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected
- (NA) Not available for this constituent

GWQC Ground Water Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, MW-1 FORT MONMOUTH, NEW JERSEY SEMIVOLATILE TICS

PAGE 25 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
MW-1	6/13/98	6/26/95	NO TICS FOUND					

Note:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 26 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	Dichlorodifluoromethane	0.50		ND
F	.,,		Chloromethane	0.50	~~	ND
			Bromomethane	0,50		ND
			Vinyl Chloride	0.50		ND
			Chloroethane	0.50		ND
			Trichlorofluoromethane	0.50		ND
			Methylene Chloride	0.50		2.3 B
			1,2-Dichloroethene (trans)	0.50		ND
			1,1-Dichloroethene	0.50	-	ND
			1,1 Dichloroethane	0.50		ND
			2,2-Dichloropropane	0.50		ND
			Bromochloromethane	0.50		. ND
			cis-1,2-Dichloroethene	0.50		ND
			Chloroform	0.50		ND
			1,1-Dichloropropene	0.50		ND
			1,2-Dichloroethane	0.50		ND
			1,1,1-Trichloroethane	0.50		ND
			Dibromomethane	0.50		ND
			Carbon Tetrachloride	0.50		ND
			Bromodichloromethane	0.50		ND
			1,2-Dichloropropane	0.50		ND
			cis-1,3-Dichloropropene	0.50		ND
			1,3-Dichloropropane	0.50		ND
			Trichloroethene	0.50		ND
			Dibromochloromethane	0.50		ND

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 27 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	1,1,2-Trichloroethane	0,50		ND
ттр ыалк	0/13/73	0/21/73	Benzene	0.50	ves	ND
			trans-1,3-Dichloropropene	0.50		ND
	•		Bromoform	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Tetrachloroethene	0.50	20	ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50		ND
			Chlorobenzene	0.50		ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0,50		ND
			Isopropylbenzene	0.50		ND
			Bromobenzene	0.50	**	ND
			1,2,3-Trichloropropane	0.50		ND
			n-Propylbenzene	0.50		ND
			2-Chlorotoluene	0.50		ND
		•	4-Chlorotoluene	0.50		ND
			1,3,5-Trimethylbenzene	0.50	***	ND
			tert-Butylbenzene	0.50		ND
			1,2,4-Trimethylbenzene	0.50		ND
			sec-Butylbenzene	0.50		ND
			1,3-Dichlorobenzene	0.50		ND
			1,4-Dichlorobenzene	0.50		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 28 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/95	6/21/95	4 Isonronvitaluano	0.50		ND
Trip Diank	0/13/93	0/21/93	4-Isopropyltoluene	- •		
			1,2-Dichlorobenzene	0.50		ND
			n-Butylbenzene	0.50		ND
			1,2-Dibromo-3-chloropropane	0.50		ND
			1,2,4-Trichlorobenzene	0.50		ND
			Hexachlorobutadiene	0.50		ND
			Naphthalene	0.50		ND
		•	1,2,3-Trichlorobenzene	0.50		, ND

Notes:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, TRIP BLANK FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 29 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Trip Blank	6/13/98	6/21/95	NO TICS FOUND			-

Note:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FT. MONMOUTH, NEW JERSEY VOLATILE ORGANICS

PAGE 30 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	Dichlorodifluoromethane	0.50		ND
11014 1514111	0,13,75	0,21,75	Chloromethane	0.50	***	ND
			Bromomethane	0.50	= 0	ND
			Vinyl Chloride	0.50		ND
			Chloroethane	0.50		ND
			Trichlorofluoromethane	0.50		ND
			Methylene Chloride	0.50		2.1 B
			1,2-Dichloroethene (trans)	0.50		ND
			1,1-Dichloroethene	0.50		ND
			1,1 Dichloroethane	0.50		ND
		•	2,2-Dichloropropane	0.50		ND
•			Bromochloromethane	0.50		ND
			cis-1,2-Dichloroethene	0.50		ND
	•		Chloroform	0.50		ND
			1,1-Dichloropropene	0.50	~~	ND
•			1,2-Dichloroethane	0.50	=-	ND
			1,1,1-Trichloroethane	0.50		ND
		,	Dibromomethane	0.50		ND
			Carbon Tetrachloride	0.50		ND
			Bromodichloromethane	0.50		ND
-			1,2-Dichloropropane	0.50		ND
			cis-1,3-Dichloropropene	0.50		ND
			1,3-Dichloropropane	0.50		ND
		•	Trichloroethene	0.50		ND
			Dibromochloromethane	0.50		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY VOLATILE ORGANICS (Continued)

PAGE 31 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	1,1,2-Trichloroethane	0.50		ND
<u></u>	_,,	-,,-	Benzene	0.50	yes	ND
			trans-1,3-Dichloropropene	0.50		ND
	-		Bromoform	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Tetrachloroethene	0.50		ND
			1,1,2,2-Tetrachloroethane	0.50		ND
			Toluene	0.50	yes	ND
			1,2-Dibromoethane	0.50		ND
			Chlorobenzene	0.50		ND
			Ethylbenzene	0.50	yes	ND
			Xylenes (Total)	0.50	yes	ND
			Styrene	0.50		ND
			Isopropylbenzene	0.50		ND
			Bromobenzene	0.50		ND
			1,2,3-Trichloropropane	0.50		ND
			n-Propylbenzene	0.50		ND
			2-Chlorotoluene	0.50		ND
	•	*	4-Chlorotoluene	0.50		ND
			1,3,5-Trimethylbenzene	0,50		ND
			tert-Butylbenzene	0.50		ND
			1,2,4-Trimethylbenzene	0.50		ND
			sec-Butylbenzene	0.50		ND
			1,3-Dichlorobenzene	0.50		ND
			1,4-Dichlorobenzene	0.50		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY **VOLATILE ORGANICS (Continued)**

PAGE 32 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/21/95	4-Isopropyltoluene	0,50		ND
			1,2-Dichlorobenzene	0.50		ND
			n-Butylbenzene	0.50		ND
			1,2-Dibromo-3-chloropropane	0.50		ND
			1,2,4-Trichlorobenzene	0.50		ND
			Hexachlorobutadiene	0.50		ND
			Naphthalene	0.50		ND
			1,2,3-Trichlorobenzene	0.50		ND

Notes:

Not applicable / does not exceed criteria Indicates detected below sample quantitation limit Indicates also present in blank **(**J)

(B)

Indicates compound not detected (ND)

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY VOLATILE TICS

PAGE 33 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/98	6/21/95	NO TICS FOUND			

Note:

- -- Not applicable / does not exceed criteria
- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY SEMIVOLATILES

PAGE 34 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/95	6/26/95	N-Nitrosodiethylamine	2		ND
	-,,-		bis(2 chloroethyl)Ether	1		ND
			1,3-Dichlorobenzene	2		ND
			1,4-Dichlorobenzene	1		ND
			1,2-Dichlorobenzene	2		ND
			bis(2-chloroisopropyl)Ether		ND	
			N-Nitroso-Di-n-propylamine	2		ND
			Hexachloroethane	1		ND
			Nitrobenzene	2		ND
			Isophorone	1		ND
			bis(2-Chloroethoxy)Methane	3		ND
			1,2,4-Trichlorobenzene	2		ND
			Naphthalene	2		ND
			Hexachlorobutadiene	2		ND
			Hexachlorocyclopentadiene	12		ND
			2-Chloronaphthalene	1		ND
			Dimethyl Phthalate	1		ND
			Acenaphthylene	5		ND
		•	2,6-Dinitrotoluene	2		ND
			Acenaphthene	3		ND
			2,4-Dinitrotoluene	3		ND
			Diethylphthalate	1		ND
			Fluorene	3		ND
			4-Chlorophenyl-phenlyether	3	 ,	ND
			N-Nitrosodiphenylamine	6		ND
			1,2-Diphenylhydrazine	6		ND
			4-Bromophenyl-phenylether	2		ND
			Hexachlorobenzene	2		ND
			Phenanthrene	2		ND

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY SEMIVOLATILES (Continued)

PAGE 35 OF 36

Sample ID	Sample Date	Analysis Date	Compound Nane	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/I)
Field Blank	6/13/95	6/26/95	Anthracene Di-n-butylphthalate Fluoranthene Benzidine	2 5 1	 	ND ND ND ND
			Pyrene Butylbenzylphthalate	2 9		ND ND
			Benzo(a)Anthracene 3,3-Dichlorobenzidine	2 15	 	ND ND
			Chrysene bis(2-Ethylhexyl)Phthalate Di-n-Octyl Phthalate	2 4 2		ND ND ND
			Benzo(b)Fluoranthene Benzo(k)Fluoranthene	1 2	 	ND ND
			Benzo(a)Pyrene Indeno(1,2,3-cd)pyrene	2 2		ND ND
Notos			Dibenzo(a,h)anthracene Benzo(g,h,i)perylene	3 2		ND ND

Notes:

-- Not applicable / does not exceed criteria

- (J) Indicates detected below sample quantitation limit
- (B) Indicates also present in blank
- (ND) Indicates compound not detected

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

TABLE 3

GROUNDWATER SAMPLING RESULTS BUILDING 206, MAIN POST, FIELD BLANK FORT MONMOUTH, NEW JERSEY SEMIVOLATILE TICS

PAGE 36 OF 36

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)
Field Blank	6/13/98	6/26/95	NO TICS FOUND			

Note:

-- Not applicable / does not exceed criteria

(J) Indicates detected below sample quantitation limit

(B) Indicates also present in blank

(ND) Indicates compound not detected

GWQC Groundwater Quality Criteria

Smith Environmental Technologies Corporation (Project No. 09-5004-01)

gw206.doc

water table was 4.15 feet below grade on May 18, 1995, and 4.50 feet below grade on June 13, 1995.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 206 were below the NJDEP soil cleanup criteria for total organic contaminants.

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

Based on the analytical results of the groundwater samples collected on May 18, 1995, and June 13, 1995, groundwater quality at the Building 206 UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and BNCs. The trace concentrations of methylene chloride detected during both rounds is attributed to sampling and/or analytical interference, based on the detection of methylene chloride, a common source of laboratory interference, in the sampling blank.

Monitoring well MW-1 which was installed on September 22, 1994 will not be abandoned immediately. This well is intended to be used for future activities within Main Post.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-4 at Building 206.

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

Œ

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

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

TMS #

UST #

C-93-2616

0081533

US Army Ft Monmouth DEH Bldg 206 Ft. Monmouth, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:148-1 et. seq.:

Removal of: one 4,000 gallon #2 diesel UST(s) and appurtenant piping.

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

ON-SITE MANAGER:

C. Appleby

TELEPHONE: 532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE:

JUL 12 1993

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

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

APPENDIX B

CERTIFICATIONS

UST-014 2/91



بتبيت	THE TOTAL PROPERTY.
UST#	
Date Rec'd	
TMS #	
Staff	

FOR STATE HEE ONLY

State of New Jersey Department of Environmental Protection and Energy

Division of Responsible Party Site Remediation CN 029 Trenton, NI 08625-0029 Tel. # 609-984-3156

Scott A. Weiner -Commissioner

Fax. # 609-292-5604

Karl J. Delaney Director

UNDERGROUND STORAGE TANK SITE ASSESSMENT SUMMARY

Under the provisions of the Underground Storage of Hazardous Substances Act in accordance with N.J.A.C. 7:14B

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- Please print legibly or type.
- · Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, <u>Interim Closure Requirements for UST's</u>, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.
- Return one original of the form and all required attachments to the above address.
- Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.
- Explain any "No" or "N/A" response on a separate sheet.

	1	Date of S	Submission
	B-ldg. 206		0081533-4
			FACILITY REGISTRATION
FACILITY NAME AND AL	DDRESS		
	Monmouth, New Jersey ngineering and Housing,	Ruild	ling 167
Fort Monmouth, N			Monmouth
Telephone No. <u>(908)</u>	532-6224		•
OWNER'S NAME AND	ADDRESS, if different from above		
· · · · · · · · · · · · · · · · · · ·			

11.	DISCHARGE REPORTING REQUIREMENTS	
	A. Was contamination found? X Yes No If Yes, Case No. 93-10-21-1910-16 (Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)	
	B. The substance(s) discharged was(were) No. 2 fuel oil	
	C. Have any vapor hazards been mitigated?YesNo_X_N_A	
111.	DECOMMISSIONING OF TANK SYSTEMS Closure Approval No. C-93-2616	
	The site assessment requirements associated with <u>tank decommissioning</u> are explained in the Technical Guidance Document, InterIm Closure Requirements for UST's, Section V. A-D. <u>Attach</u> complete documentation of the methods used and the results obtained for each of the steps of <u>tandecommissioning</u> used. Please include a <u>site</u> map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotate to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly an legibly annotated.	e <u>k</u> le d
IV.	SITE ASSESSMENT REQUIREMENTS	
	A. Excavated Soil	
	Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardou Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technic guidance documents for closure and corrective action. Describe amount of soil removed, its classification and disposal location.	ie al
	B. Scaled Site Diagrams	
	1. Scaled site diagrams must be attached which include the following information:	
	 a. North arrow and scale b. The locations of the ground water monitoring wells c. Location and depth of each soil sample and boring d. All major surface and sub-surface structures and utilities e. Approximate property boundaries f. All existing or closed underground storage tank systems, including appurtenant piping g. A cross-sectional view indicating depth of tank, stratigraphy and location of water table h. Locations of surface water bodies 	
	C. Soil samples and borings (check appropriate answer)	
	Were soil samples taken from the excavation as prescribed? X YesNoN/A	
	2. Were soil borings taken at the tank system closure site as prescribed?YesNoX_N	A
-	3. Attach the analytical results in tabular form and include the following information about each sample: a. Customer sample number (keyed to the site map) b. The depth of the soil sample c. Soil boring logs d. Method detection limit of the method used a. OA/OC Information as required.	•

D. Ground Water Monitoring

2.	Attach the analytical results of the ground water samples in tabular form. Include the followinformation for each sample from each well:
	a. Site diagram number for each well installed
,	b. Depth of ground water surface
٧.	c. Depth of screened interval
,	d. Method detection limit of the method used e. Well logs
	f. Well permit numbers
	g. QA/QC Information as required
SOIL	CONTAMINATION
	s soil contamination found? Yes X No
	Yes", please answer Question B-E
7	No*, please answer Question B
B. Th	highest soil contamination still remaining in the ground has been determined to be:
1.	N/A ppb total BTEX, N/A ppb total non-targeted VOC N/A ppb total B/N, N/A ppb total non-targeted B/N
<u>د</u> .	
4.	
C. Re	mediation of free product contaminated soils
2.	All free product contaminated soil on the property boundaries and above the water table are believ have been removed from the subsurfaceYes _X _No
3.	have been removed from the subsurfaceYes _X No Free product contaminated soils are suspected to exist below the water tableYes _X No Free product contaminated soils are suspected to exist off the property boundariesYes _X
3. D. Wa	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesXNo Free product contaminated soils are suspected to exist off the property boundariesYesX us the vertical and horizontal extent of contamination determined?YesNoX_N/A
3. D. Wa	have been removed from the subsurfaceYes _X No Free product contaminated soils are suspected to exist below the water tableYes _X No Free product contaminated soils are suspected to exist off the property boundariesYes _X
3. D. Wa E. Do	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesXNo Free product contaminated soils are suspected to exist off the property boundariesYesX us the vertical and horizontal extent of contamination determined?YesNoX_N/A
D. Wa E. Do GROL A. Wa	have been removed from the subsurfaceYes
D. Wa E. Do GROL A. Wa	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesXNo Free product contaminated soils are suspected to exist off the property boundariesYesX is the vertical and horizontal extent of contamination determined?YesNoX_N/A es soil contamination intersect ground water?YesNoX_N/A IND WATER CONTAMINATION as ground water contamination found?YesX_No Yes*, please answer Questions B-G.
3. D. Wa E. Do GROL A. Wa H B. Th	have been removed from the subsurfaceYes
3. D. Wa E. Do GROL A. Wa H B. Th	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesNo Free product contaminated soils are suspected to exist off the property boundariesYesX us the vertical and horizontal extent of contamination determined?YesNo
3. D. Wa E. Do GROL A. Wa H B. Th be	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesXNo Free product contaminated soils are suspected to exist off the property boundariesYesX as the vertical and horizontal extent of contamination determined?YesNoX_N/A es soil contamination intersect ground water?YesNoX_N/A IND WATER CONTAMINATION as ground water contamination found?YesX_No Yes*, please answer Questions B-G. No*, please answer only Question B. e highest ground water contamination at any 1 sampling location and at any 1 sampling event to date en determined to be: NDppb total BTEX,NDppb total non-targeted VOCNDppb total non-targeted B/N
3. D. Wa E. Do GROL A. Wa H. B. Th be	have been removed from the subsurfaceYes
3. D. Wa E. Do GROL A. Wa H B. Th be 1. 2. 3. 4.	have been removed from the subsurface Yes X No Free product contaminated soils are suspected to exist below the water table Yes X No Free product contaminated soils are suspected to exist off the property boundaries. Yes X as the vertical and horizontal extent of contamination determined? Yes No X N/A es soil contamination intersect ground water? Yes No X N/A IND WATER CONTAMINATION as ground water contamination found? Yes X No Yes", please answer Questions B-G. No", please answer only Question B. e highest ground water contamination at any 1 sampling location and at any 1 sampling event to date and determined to be: ND ppb total BTEX, ND ppb total non-targeted VOC ND ppb total BN, ND ppb total non-targeted B/N N/A ppb total MTBE, N/A ppb total TBA N/A ppb total MTBE, N/A ppb total TBA N/A ppb total MTBE, N/A ppb total TBA N/A ppb total mon-petroleum substance)
3. D. Wa E. Do GROL A. Wa H. B. Th be 1. 2. 3. 4. 5.	have been removed from the subsurfaceYes
3. D. Wa E. Do GROL A. Wa H. B. Th be 1. 2. 3. 4. 5. 6.	have been removed from the subsurfaceYesXNo Free product contaminated soils are suspected to exist below the water tableYesXNo Free product contaminated soils are suspected to exist off the property boundariesYesYes
3. D. Wa E. Do GROU A. Wa H B. Th be 1. 2. 3. 4. 5. 6. C. Re	have been removed from the subsurface

	o. I forming of wens and contaminant plotte	
	The shallowest depth of any well noted in the well potential path(s) of the contaminant plume(s) is for the effects of pumping, subsurface structures, This well is feet from the source and its screen.	feet below grade (consideration has been given etc. on the direction(s) of contaminant migration)
	The shallowest depth to the top of the well screen for described in D1 above) isfeet below grade	
	3. The closest horizontal distance of a private, communication plume (as determined in D1) is feet from screening begins at a depth of feet.	
	E. A plan for separate phase product recovery has been incl	dudedYesNoN/A
	F. A ground water contour map has been submitted which i	includes the ground water elevations for each well.
	G. Delineation of contamination	
	The ground water contaminants have been delined boundariesYesNo	neated to MCLs or lower values at the property
	The plume is suspected to continue off the property a Yes No No	at concentrations greater than MCLs.
	3. Off property access (circle one): is being sought	has been approved has been denied
VII.	SITE ASSESSMENT CERTIFICATION [preparer of site a	assessment plan - N.J.A.C. 7:148-8.3(b) &9.5(a)
	The person signing this certification as the "Qualified Ground responsible for the design and implementation of the site asset 9.2(b)2, must supply the name of the certifying organization as	essment plan as specified in N.J.A.C. 7:14B-8.3(a)
	"I certify under penalty of law that the information and complete and was obtained by procedures in am aware that there are significant penalties for sinformation, including fines and/or imprisonment."	compliance with N.J.A.C. 7:14B-8 and 9. submitting false, inaccurate, or incomplet
	NAME (Print or Type) Charles M. Appleby	SIGNATURE / Aly
•	· · · · · · · · · · · · · · · · · · ·	a Luda
	COMPANY NAME U.S. Army, Fort Monmouth (Preparer of Site Assessment Plan)	DATE 3/14/92
	CERTIFYING NJDEP	CERTIFICATION 002056

VIII	TANK DECOMMISSIONING CEF closure plan - N.J.A.C. 7:148-9.5(a)4)	ATTECATION [person performing tank decommissioning portion of
	compliance with NJA.C. 7:141	w that tank decommissioning activities were performed in B-92(b)3. I am aware that there are significant penalties for neomplete information, including fines and/or imprisonment."
	NAME (Print or Type)	SIGNATURE
	COMPANY NAME	DATE
	(Penormer of tan	K Decommissioning)
X.	CERTIFICATIONS BY THE RESPONS	SIBLE PARTY(IES) OF THE FACILITY
	A. The following certification at responsibility for that facil	hall be signed by the highest ranking individual with overall lity [N.J.A.C. 7:14B-2.3(c)1l].
	accurate, and complete . I an inaccurate, or incomplete info	law that the informatice provided in this document is true, a aware that there are significant penalties for submitting false, ormation, including fines and/or imprisonment."
	NAME (Print or Type) James 0	tt signature signs Off
	COMPANY NAME U.S. ATTRY	Fort Monmouth DATE 2/14/96
	B. The following certification shall I N.J.A.C. 7:14B-2.3(C)2I]:	be signed as follows [according to the requirements of
	2. For a partnership or sole propri	I executive officer of at least the level of vice president. etorship, by a general partner or the proprietor, respectively; or all or other public agency by either the principal executive officer or ranking
	required in A above is the same	king corporate partnership, governmental officer or official at the facility as person as the official required to certify in B, only the certification in A uses, the certifications of A and B shall be made.
	information submitted in this inquiry of those individuals in that the submitted information	aw that I have personally examined and am familiar with the application and all attached documents, and that based on my mmediately responsible for obtaining the information, I believe on is true, accurate, and complete. I am aware that there are mitting false, inaccurate, a fall mplete information, including
	NAME (Print or Type)	SIGNATURE
	COMPANY NAME	DATE

GENERATOR CERTIFICATION

I hereby certify that the waste described on Hazardous waste Manifest No. NJA 170055 dated is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'s) and does not display any characteristic or contain any hazardous constituents other than for which waste oils are listed in New-Jersey.

X721: Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.

X728; Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.

X723: Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned or replaced.

X724: Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oil ballast water from product transport units of boats, barges, ships or other vessels.

X725: Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.

X726: The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X728: Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

I am duly authorized to sign said certification.

Genera	ator U.S. ARMY	Communica	Hons Elect.	conies Com	n. 13- (,	Fort Monno. 1
Genera	ator's EPA ID N	No. NJ33/	00 2059	7 - e		Mary H NT
Addres	ss C/o Jimys	Shirahio	Bldg. 250	4 AHD SE	IFM - DL	-EM-1150270
Print	Name Charles	Applely	Signature_			
Title_	Environmental	Prokation	Special	5 7	8	
Date	- 11/1/1	3	•	•		

Form 003 5/91

43.3

APPENDIX C
WASTE MANIFEST



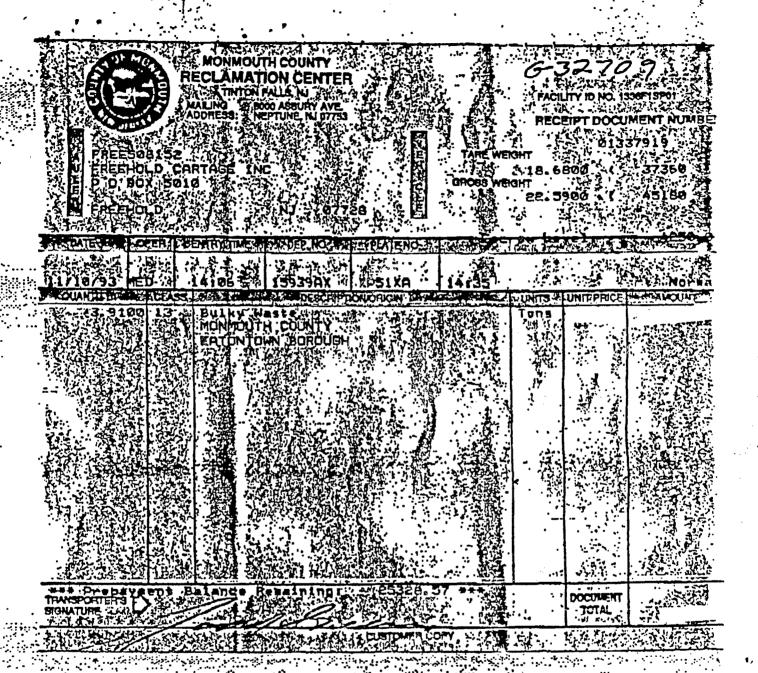
194 Arra (1997) Pro 1980 Arra, 198 Politicas de 2000 Fra.

State of New Jersey Department of Environmental Protection and Energy Hazardous Waste Regulation Program Manifest Section CN 028, Trenton, NJ 08625-0028 igned for use on elite (12-pitch) typewriter

716	Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)			poroved. OMB	No. 2050-003	9. EXPIRES 9	-30-94
	UNIFORM HAZARDOUS 1. Generator's US EPA ID No. Manife Documen N J 3 2 1 0 0 5 9 7 0 0 0	nt No.	2. Page 1 of 1	is not r	equired by	shaded areas Federal law	
i l	3. Generator's Name and Mailing Address US Army Communications Electronic	cs.C	omusicie	Manifest Docu	nent Numbe	EAGE	
	c/o James Shirghio, Bldg 2504	,		IJA.		<u> </u>	
	ATTN: SELFM-DL-EM-MS		B. State	Generator's ID	815-33	-4	De-
	4. Generator's Phone (908) 532-6224 Fort Monmouth N.J. 07703 5. Transporter 1 Company Name 6. US EPA ID Number	<u> </u>		U-4.	3-26	4	
	{	ر ا ما		in Post Trans. ID	YEN IL	₹ 7177	15
!	Freehold Cartage Inc. N J D 0 5 4 1 2 6 1 1 7. Transporter 2 Company Name 8. US EPA ID Number	1614	+	porter's Phone		62-100	
		1 1		Trans. ID	<u> </u>	. .	1. J.
	9. Designated Facility Name and Site Address 10. US EPA ID Number	<u> </u>				and the same of	#-D
П	Ill Elonetti oli kecovery to, inc.		F. Trans	porter's Phone	()		رامر پیپیر
	Runyon & Cheesequake Rds.			Facility's ID	<u> </u>	<u> </u>	
ij	Old Bridge, NJ 08857 N J D 0 8 4 0 4 4 0			y's Phone (g		-0900	
. ;	11. US DOT Description (Including Proper Shioping Name, Hazard Class, and ID Number)		ainers :	Total	14. Unit	. I. Waste No.	.
:		No.	. Tyse i	Quantity	'Wt/Voll	-	
	X Petroleum Oil N.O.S. Class 3 (Petroleum Oil)		:		٠		
i	Combustible Liquid UN 1270 PG III	011	TTT	0640	16 X	17 12	12
G	G 5.				:		
N	N .				;		
R.	R	!!		<u> </u>	!		
A	Al ² · · · ·						.
0		f :				1 1	
R	R	1 :	: - :				
		[1 1 1 1		1	
	J. Additional Descriptions for Mater & Listed Above T, L Petroleum Oil %	·	K. Hand	lling Codes for	Wastes Liste	d Above	
	Water 10.%		TOS-F	iltratio	n	واللوائدة فتعدا	
	a. c.	·	a.		c.		
							-
	15. Special Handling Instructions and Additional Information		<u>l</u> b.	<u> </u>	d.		·
	NOT EPA REGULATED, REGULATED AS HAZARDOUS WASTE IN NJ						
	24 HOUR EMERGENCY # 201-427-28813			•	-		
	NJ DECAL# 46599 ERG# 27					·	
	16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and classified, packed, marked, and labeled, and are in all respects in proper condition for transport by						
	government regulations.	y mgmw	ay accord	ing to applicab	ie internatio	iai and nau	ionai
	If I am a large quantity generator. I certify that I have a program in place to reduce the volume and toxic economically practicable and that I have selected the practicable method of treatment, storage, or dispo						
	future threat to numan health and the environment: OR, if I am a small quantity generator, I have made the pest waste management method that is available to me and that I can afford.						
	Frinted/Typed Name Signature	0	<u> </u>		Mon	nth Day	Year
	Charles M. Appleby SEHEM-PU-EN		\mathbf{V}		1/1	1011	93
Ţ	T 17. Transporter 1 Acknowledgement of Receipt of Materials	· · · · ·	$\langle \cdot \rangle$! i		
A	A Printed/Typed Name				Mor	nth Day	Year
S	IS WHINCO TOOK IN TO		90		111	LUUL	4
C		\ <u>`</u>			1/2-	- Davi	V
: 2	Ti Printed/Typed Name Signature	•			Mor	nth Day	Year
- A	RT 1 13. Businerana, malication Space					111	ı
: :	F. Control of the con						
A C	[A]						
		095t &3	nat ag in i	am 1).			
Ÿ	y : Printed Tissi Jame Signature				Mor	ith Day	Year
_] [1!!	1
	QEA Form extend To you get grown us leastions are post era. SIGNATURE AND INFO	AMRO	TION MIL	JST BE LEG	BLEON	ALL COPI	IES

APPENDIX D

UST DISPOSAL CERTIFICATE



3.91 Tons Bulky Waste Fiberglass tank disposal Bldg 208A, 282, 205, 207A, 287, 206

APPENDIX E

NJDEP WELL PERMITS AND WELL CONSTRUCTION LOGS

SERIAL # 41112 STATE OF NE	FW.JERSEY ()
DEPARTMENT OF ENVIRONMENT	TAL PROTECTION AND ENERGY
DEPE MONITORING	Permit No 7 10 1
Bureau Water Allocation CN426 Tienton, NJ 08625	
Emiliary 100 00020 The State of	COORD #: (2 (1)(6) [
Owner US Army-Fort Monmouth	Driller Tyre Overnization 111
ddress SELF PW EV	Address 1350 US Huy 130
Fort Monmouth NJ07703	Burlington NJ 08016
lame of Facility Elda 206	Diameter of Well(s) Proposed Depth of Well(s) Feet
Address Main Post	# of Wells Applied for (max. 10) Will pumping equipment be installed? YES \ NO\(\)
Fort Monmouth NJ	Type of Well 11 If Yes, give pump
LOCATION C	OF WELL(S)
F 11t # Block # Municipality County	Draw sketch of well(s) nearest roads, buildings, etc. with
Fort Wommonth Monmonly	marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.
State Atlas Map No. 29	A Live State of the Control of the State of
State Atlas Map No. 29 Hildreth Ave	
The transfer of the New York o	ng Kanggapan Banggapan kalanggapan di kananggapan di kananggapan di kananggapan di kananggapan di kananggapan
	an ing kalang kabupatèn di diakan di kabupatèn di kabupatèn di kabupatèn di kabupatèn di kabupatèn di kabupatèn
30	en de la respectación de la companya de la company La companya de la co
SITE	the first service of the service of the
	1 1 25
To the terms of th	• And the second
11000	IN I
- ' 40° 18' '	
FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING	MUST BE COMPLETED BY
THE APPLICANT, PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:	This Space for Approval Stamp
]ISRA Site	
☐ CERCLA (Superfund) Site ☐ RCRA Site C	ASE I.D. Number
₹Underground Storage Tank Site	AUG 3 1994
Operational Ground Water Permit Site	0-21-19/016 Aug 2000
☐ Pretreatment and Residuals Site Site Water and Hazardous Waste Enforcement Case	
Water Supply Aquifer Test Observation Well	BUREAU OF WATER ALLOCATION
Other (explain)	
FOR Issuance of this permit is subject to the conditions attached. (see next page	ge). The well(s) may not be completed with more than 25 feet of total screen
FOR Dissuance of this permit is subject to the conditions attached. (see next page D.E.P.E.) For monitoring purposes only	or uncased borehole.
SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PER	
in compliance with N.J.S.A. 58:4A-14, application is made for a perm	
Rite 7-25-74 Signature of Driller 110	License # 142)
Signature of Owner	SELFM-PW-EV
COPIES: Water Allocation — White and Pink	Owner — Blue Driller — White

MONITORING F L CERTIFICATION-FORM B-LOCK ON CERTIFICATION

Hame of Permittee: US. ARMY
Hame of Pacility: FORT MON MOUTH
INCATION: MON MOUTH COUNTY, NJ
NJPDIS HUMBER: 93-10-21-1910-1

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:

This number must be permanently affixed to the well casing.

29-31784-

Longitude (to nearest second):

Latitude (to nearest second): Elevation of Top of Inner Casing (cap off)

(one-hundredth of a foot):
Elevation of ground level (1/100th ft.)
Bource of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100°, and give approximated actual elevation.)

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

Mest 74°02' 05.14"
Morth 40° 18'56.22"
9.27
9.96
Source: FM-6
<u> 1927</u> <u>1983</u>
Flav.

BLDG. 206 MW-1

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

AUTHENTICATION

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

PROFESSIONAL LAND EURVEYOR'S SIGNATURE

PROFESSIONAL LAND SURVEYOR'S HAME
(Please print or type)

SEAL

FROFESSIONAL LAND BURVEYOR'S LICENSE &

MONITORING WELL RECORD

·					31784	1
		Alias	Sheet Coord	inates	<u> </u>	_ <u>`</u>
OWNER IDENTIFICATION - Owner	·		·			
Address	THE MEASU					
City	SELEN-LY-BY	¥4	State	14.1	Zip Code	<u> </u>
· -			•			
NELL LOCATION - If not the same as			ner's Well No.	Elifo De	of MW-1	
County			*>********	_ Lot No	Block No	
ddress <u>M + 17771</u>	<u> </u>	XENHORI,	建 原数)	SE	·	
TYPE OF WELL (as per Well Permit Ca	ategories)		Date w	ell complete	ल वंग ३० वत	
egulatory Program Requiring Well	HOMPON	RING	Case I.	D. #		
CONSULTING FIRM/FIELD SUPERVI	SOR (if applicable)				33 12 21 1710 1 Tele. #	
	SON (II applicable)				1616.#	
VELL CONSTRUCTION		Depth to	Depth to	Diameter		7
rotal depth drilledft.		Top (ft.)	Bottom(ft.)			1
Mell finished to13 ft.		[From lar	nd surface]			_
prehole diameter: 1913	Inner Casing	Jr. 15.	311.	14	PVC	
Topin.	Outer Casing	W	J 13			7
ottom Bin.	(Not Protective Casing)		ļ			_
/ ←	Screen (Note slot size)	-	1441		male onc	1
Well was finished: above grade	Tail Piece	3 /-4	5 13			ヿ
flush mounted	Tail Tiece		 			
inished above grade, casing	Gravel Pack	31	3111		12 V - 20 M	
height (stick up) above land	Annular Seal/Grout	7.3 p. 19	1	}	8.1. 6.4	$I \subseteq I$
s mfaceft.		6	 3, 	<u> </u>	The state of the s	의 (
V_s steel protective casing installed?	Method of Grouting		EMACIE	·		
Yes No	· .			(Copie	s of other geologic logs and/or	
S tic water level after drilling	ft.		OLOGIC LOG	geoph	ysical logs should be attached	<u>.)</u>
water level was measured using		1.7	5'-1' As	mile 15.	. 6 60 f.E	- {
Well was developed forhou	gpm gpm	100)-1 /ME			- [
M hod of development	10		1,-9, 7x	K dug.	sury fine sands	- {
Was permanent pumping equipment in	stalled? Yes No		۸ و سر ۱	14	Jax 3.63 & 4 6.	100
Pເົືາp capacitygpm	· · · · · · · · · · · · · · · · · · ·	· .	3.2 1	ravel w	But Find the	
Pu_p type:			5151 C	march of	Acom brown clay- so d	1 X.
Drilling Method			J . , (A			
Dr ng Fluid Type	of Rig		5'-12'6	G-84 5	sale clay the sen	<u> </u>
varine of Driller	200		the strip same	ب		-
lealth and Safety Plan Submitted?	Yes No			•		- 1
e of Protection used on site (circle o	one) None D C B A		•		•	
1.J. License No.						
lar 9 of Drilling Company 1431					<u> </u>	اــا
		armatiel. I	DETRINACIO	mit rocuiro	mente and all annlicable	
certify that I have drilled the above tate rules and regulations.	e-referenced well in acc	COLORNICE MIL	ir air weir per	mit require:	mento anu an applicable	-
Tares and regulations.					•	
Driller's Sian	ature	11/1	1.1)ate 10-10-95	_
	2000	delier 1	1.600			

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

FIELD LOG						FIEL	og c	OF BORING SHEET OF					
LOC	ATION	OF E	ORIN	G: {								PROJECT: US Army BORING NO: MIN-	
												TOTAL DEPTH: A TOTAL	
								1				JOB NO: LOGGED BY: E, Pye	
					. ,)				PROJ. MGR.: Capritti EDITED BY:	
		0] 9		204	•						DRILLING CONTRACTOR: Tyrec	
		12	ل	•	204							DRILL RIG TYPE: 380	
				ŗ								DRILLERS NAME: M. Beck	
					29	-		. 1				SAMPLING METHODS: 55	
		,	,			۵	MW					HAMMER WT.: 20 65, DROP:	
. [Œ.		141			·	STARTED, TIME: 1:30 PM DATE:	
,		Г					<u> </u>					COMPLETED, TIME: 7:30PM DATE:	
,						. •						BORING DEPTH (ft): 13 1	
						_				T		CASING DEPTH (ft): 35	
1				60	z	DRILLING RATE (min./ft.)	5		SRAPHIC WELL CONST.			CASING DEPTH (ft): 35 WATER DEPTH (ft): 4'5'	
·			z	NCHES RECOVERED	SAMPLE CONDITION	im)	PID READING (ppm)		_ CC	.	_	TIME:	
SAMPLE DEPTH	SAMPLER TYPE	Ä.	INCHES DRIVEN	:co	ONO	3ATE	υg	(¿ N	WELI	TOOD IN LITOUR	5 8	DATE: 913-194	
E D	ER	BLOWS / 6 IN.	SDF	SRE	Ш	NG	ADI	ODOR (Y / N ?)	4IC \			BACKFILLED, TIME: 2:35 PMPATE: 9 37 BY: Tyre	
\WPL	MPL	MO	몽	EHE.	MPL	E.) RE	NOC	4VV		GRAPHIC	SURFACE ELEV: DATUM:	
SS	VS	BL	Ž	ž	SA	۵	J.	jo	£9	2	उं उ	CONDITIONS:	
"	-											Asphalt Subbase	
n .										1		J	
ا س.									2	1	HSY	Dark gray silty fire sands with	
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APPENDIX F

SOIL ANALYTICAL DATA PACKAGE

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

Client: U'.S. Army

DEH, SELFM-EH-EV

Bldg. 167

Ft. Monmouth, NJ 07703

Lab. ID #: 1294.1-.9

Sample Rec'd: 10/21/93

Analysis Start: 10/22/93

Analysis Comp: 10/22/93

Analysis: 418.1 (TPH)

Matrix: Soil

Analyst: | S. Hubbard

Ext. Method: SONC.

NJDEPE UST Reg.#: 0081533-4

TMS #: C-93-2616

NJDEPE Case #:

Location #: Bldg. # 206

Lab ID.	Description	%Solid	Result (mg/	L
1294.1	Site A, 2 -2.5' hNu=ND	80	113.	3.3
1294.2	Site B, 2.5- 5' hNu= 400.	. 80	384.	20.
1294.3	Site C, 4.5 - 5' hNu= 5.0	84	235.	3.3
1294.4	Site D, 4.5 ~ 5' hNu=ND	84	18.8	3.3
1294.5	Site E, 4.5- 5' hNu=ND	86	18.3	3.3
1294.6	Site F, 4.5 - 5' hNu=ND	80	15.7	3.3
1294.7	Site G, 4.5 - 5' hNu= 1.0	80	15.7	3.3
1294.8	Site H, 4.5 - 5' hNu=ND	83	53.9	3.3
1294.9	Duplicate of E hNu=ND-	86	30.8	3.3
i.			,	
M. BL.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

1294.9 Spike=109% 1294.9 Spike Dup.=112% RPD: 97%

Brian K. McKee

Laboratory Director



			F-1	J. #:	<u> </u>						}				cnain	or Lu	is cool	4
Project #: /	-93-5	0616	Sampler:	CUTE (Contrac	4-1		Date .			F	fina Para	lysis meter	; ;				Start	
Customer: De			Site Name:				7	7	/ \	7	7	77		Finis	:h:			
C. APPleby - 2056 Cent, Phone: 532-634			Site Name: Bldg. 206 - UST closure VST# 81533 - 4				re							1.18			<u> </u>	
			Tms# C-93-26/6				of ottles				kg/ /	/ /	214			Preservation Method		
Lab Sample ID Number	Date	Time		mer Sample n/ID Number		mple trix	# of Bottles		/ \$	% (*)				6	<u>*</u> /	Rema	rks	
1294.1	10/01/93	1558	Site A -	2,0 -> 2.5	5	oil	1		X	X	×			ND				
.2		1555		2.5 3 3.0		1			X		X			400.) 			
,3		R35	<u> </u>	- 4.5' 7 5.0'	/		1		X	X	X	_	<u> .</u>	5.0				·
		1525	D -	- 4.5' → S.0'			1		X	<	X			ND				
		1528	۶	4.5' -> 5.0	<u> </u>				X	x	X			NN				
.6		1530	F	4.5'-75.0	′	<u></u>			X	¥	X			NV	Sonoly	Rept	2400	· All
		1534	G	4,5' -> 50	/	L			X	×	X			1.0		<i>0</i>		
1 ,8		1536	4	4,5' -> 5.0	/		1		X	X	<			N.O				
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SAI-ENV COC	form (01		Page _		ol		F	age	· S		Rev.	Ħ	Dat	e: 02	Apr. 9.	3	

Codelier 22, 1993 1050

Sanah Thubland

33,75 101 MV

67.5 202 MV

135 420 MV

1294.1 81 MV

1294.2 44 MV

1294.3 180 MV

1294.5 11 MV

1294.6 8 MV

1294.8 38 MV

1294.9 5 Pup 21 MV

1294.9 5 pk 96 MV

1294.9 5 pk 96 MV

(1294.5) Dup Spt 99 AV

PHC Conformance/Non-conformance Summary Report	No Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	
 IR Spectra submitted for standards, blanks, & samples Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted. 	- <u>\</u> _\(\sigma\)
5. Extraction holding time met. (If not met, list number of days exceeded for each sample) — —
6. Analysis holding time met. (If not met, list number of days exceeded for each sample)	
Comments:	

Laboratory Authentication Statement

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

Brian K. McKee Laboratory Manager

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

Client: U.S. Army

DEH, SELFM-EH-EV

Bldg. 167

Ft. Monmouth, NJ 07703

Lab. ID #: 1294.1-.9

Sample Rec'd: 10/21/93

Analysis Start: 10/22/93

Analysis Comp: 10/22/93

Analysis: Munsel

Lab ID#	Soil Color
1294.1	2.5Y 3/2 very dark grayish brown
1294.2	5Y 4/3 olive
1294.3	2.5Y 3/2 very dark grayish brown
1294.4	2.5Y 4/3 olive brown
1294.5	5Y 4/2 olive gray
1294.6	2.5Y 4/2 dark grayish brown
1294.7	2.5Y 4/2 dark grayish brown
1294.8	2.5Y 4/3 olive brown
1294.9	5Y 4/2olive gray

Sin My

Brian K. McKee Laboratory Director



APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

FINSL ANALYTICAL, INC. Asbestos - Lead - Environmental - Materials



wew Jersey

€ arporate Office & in Laboratory Haddon Avenue Westmont, NJ 08108 (609) 858-4800

ooper Street wastmont, NJ 08108 (609) 858-4800

6 Stelton Road cataway, NJ 08854 (908) 981-0550

" w York

Fifth Avenue Empire State Bldg. Suite 1524 w York, NY 10118 2) 290-0051

ANALYTICAL DATA REPORT

FOR

U.S. Army Fort Monmouth SELFM-PW-EV **Building 173** Fort Monmouth, NJ 07703

Gw Data 206 Originals

PROJECT: #931021191016

EMSL Project: # 9508273

2) 290-0051 208 Stonehenge Lane Farle Place, NY 11514 6) 997-7251	Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & of Coll		Date Received
California F 30 S. Amphlett Blvd.	1834.1 Bldg. 206 MW1-2931784	95-23163	Aqueous	5/18/95	13:16	5/19/95
te 130 Som Mateo, CA 94402 (415) 570-5401	1830.4 Trip Blank	95-23164	Aqueous	5/18/95	06:15	5/19/95
orida 1878 Adams Avenue Melbourne, FL 32935 (197) 253-4224	1830.5 Field Blank	95-23165	Aqueous	5/18/95	14:30	5/19/95

=...eorgia

1600 Rosewell Street, SE te One yrna, GA 30080 ₹-₩4) 333-6066

f' ichigan

2 S. Wagner Road Ann Arbor, MI 48103 (313) 668-6810

Laboratory Name

orth Carolina

Certification No.

620-G Guilford College Rd. Greensboro, NC 27409 0) 297-1487

Tevas -

1501 Central Parkway ite C-13 uston, TX 77092 (713) 686-3635

Supervisor/Manager Signature

Printed Name

Date

EMSL ANALYTICAL, INC.

NJDEP No. 04653 PADER No. 68-367 NY-ELAP No. 10896

Paul V. Laraia

06-27-95

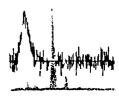




TABLE OF CONTENTS

	<u>Page</u>
Sample Data Summary Package Laboratory Deliverables	3 - 19
Laboratory Deliverables	
QA/QC Checklist	21
Chain of Custody Documentation Methodology Supposes	22 - 26
Methodology Summary Laboratory Chronicle	27 - 28
Laboratory Chronicle	
Analysis Conformance/Non-Conformance Summary Format	29 - 30
GC/MS Volatile Organic Data Package	32 - 129
. Initial Calibration BFB Tune	
. Initial Calibration Data	
. Continuing Calibration BFB Tune	
. Continuing Calibration Data	
. Internal Standards Area Summary	•
. Sample Results	
. Surrogate Recovery Form	
Method Blank Data	
. Matrix Spike/Matrix Spike Duplicate Data	
GC/MS Semivolatile Organic Data Package	130 - 22
. Initial Calibration DFTPP Tune	
. Initial Calibration Data	
. Continuing Calibration DFTPP Tune	
. Continuing Calibration Data	
. Internal Standards Area Summary	
. Sample Results	
. Surrogate Recovery Form	
. Method Blank Data	
. Matrix Spike/Matrix Spike Duplicate Data	•
Statement of Authentication	228

SAMPLE DATA SUMMARY PACKAGE

W. Cultural

ttention: Charles Appleby

U.S. Army - Fort Monmouth

SELFM-PW-EV Building 173

Fort Monmouth NJ 07703

Client Project: 931021191016

[lient Designation: Bldg.206,MW1-2931784

Date of Report: Project Number:

Lab ID:

Date Collected:

Collected By:

Date Received:

06/23/95 09508273

95-0023163 05/18/95 13:16

Client

05/19/95 07:00

Unit Conc.

TORGANIC

Semi-Volatiles

BN by 625 with Library Search

Volatiles

Volatiles by 524.2 w/ Library Search see attached ug/l

see attached ug/l

US HARMY Ft. Monmonth NJ FMEtL# 1834,1

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: EMSL ANA	LYTICAL	,	Contract:	9523163B Bldo 206 MW1-2431			
Project No.:		Site:	Location:	<i>()</i> Group:			
Matrix: (soil/water)	WATER			Lab Sample ID: 9523163B			
Sample wt/vol:	1000.0	_(g/mL ML		Lab File ID: B7777.D			
Level: (low/med)		_		Date Received: 5/19/95			
% Moisture:		decanted: (Y/N):	N	Date Extracted: 5/25/95			
Concentrated Extract Volu	me:	_1000_(uL)		Date Analyzed: 6/2/95			
Injection Volume:	1.0	_(uL)		Dilution Factor: 1.0			

GPC Cleanup: (Y/N) pH: ____

		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	· Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U ·
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	Ŭ
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U-
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	Ū
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	Ŭ
120-12-7	Anthracene	2	Ŭ
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

9523163B	
	,

06

Lab Name: EMSL ANA	LYTICAL		Contract:		Bldg. 206 MWJ - 2931784
Project No.:		Site:	Location:		Group:
Matrix: (soil/water)	WATER	-		Lab Sample ID:	9523163B
Sample wt/vol:	1000.0	(g/mL ML		Lab File ID	: <u>B7777.</u> D
Level: (low/med)		-		Date Received:	5/19/95
% Moisture:		decanted: (Y/N):	N	Date Extracted:	5/25/95
Concentrated Extract Volu	me:	1000 (uL)		Date Analyzed:	6/2/95
Injection Volume:	1.0	(uL)		Dilution Factor:	1.0
GPC Cleanup: (Y/N)	<u> </u>	pH:	:		

129-00-0 Pyrene 2 U 85-68-7 Butylbenzylphthalate 9 U 56-55-3 Benzo[a]anthracene 2 U 91-94-1 3,3'-Dichlorobenzidine 15 U 218-01-9 Chrysene 2 U 117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U		Concentration Units:				
85-68-7 Butylbenzylphthalate 9 U 56-55-3 Benzo[a]anthracene 2 U 91-94-1 3,3'-Dichlorobenzidine 15 U 218-01-9 Chrysene 2 U 117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q		
56-55-3 Benzo[a]anthracene 2 U 91-94-1 3,3'-Dichlorobenzidine 15 U 218-01-9 Chrysene 2 U 117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	129-00-0	Pyrene	2	U		
91-94-1 3,3'-Dichlorobenzidine 15 U 218-01-9 Chrysene 2 U 117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	85-68-7	Butylbenzylphthalate	9	U		
218-01-9 Chrysene 2 U 117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	56-55-3	Benzo[a]anthracene	2	U		
117-81-7 bis(2-Ethylhexyl)phthalate 4 U 117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	91-94-1	3,3'-Dichlorobenzidine	15	U		
117-84-0 Di-n-octylphthalate 2 U 205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	218-01-9	Chrysene	2	U		
205-99-2 Benzo[b]fluoranthene 1 U 207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	117-81-7	bis(2-Ethylhexyl)phthalate	4	U		
207-08-9 Benzo[k]fluoranthene 2 U 50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	117-84-0	Di-n-octylphthalate	2	U		
50-32-8 Benzo[a]pyrene 2 U 193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	205-99-2	Benzo[b] fluoranthene	1	U		
193-39-5 Indeno[1,2,3-cd]pyrene 2 U 53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	207-08-9	Benzo[k]fluoranthene	2	U		
53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	50-32-8	Benzo[a]pyrene	2	U		
53-70-3 Dibenz[a,h]anthracene 3 U 191-24-2 Benzo[g,h,i]perylene 2 U	193-39-5	Indeno[1,2,3-cd]pyrene	2	U		
	53-70-3		3	U		
	191-24-2	Benzo[g,h,i]perylene	2	U		
				·		

US ARMY Ft. Manmouth N.J. FMERH 1834,1

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

	SAMPLE NO.
•	
	9523163B
	6 kg. 206 Mist-2931784

Lab Name: EMSL ANA	LYTICAL		Contract:	
Project No.:		Site:	Location:	Group:
Matrix: (soil/water)	WATER	_		Lab Sample ID: 9523163B
Sample wt/vol:	1000.0	(g/mL) ML		Lab File ID: B7777.D
Level: (low/med)	<u> </u>			Date Received: 5/19/95
% Moisture:		decanted: (Y/N)	N	Date Extracted: 5/25/95
Concentrated Extract Volu	ıme:	1000(uL)		Date Analyzed: 6/2/95
Injection Volume:	1.0	_(uL)		Dilution Factor: 1.0
GPC Cleanup: (Y/N)	N	pH:		
•			Concentration 1	Units:

Number TICs found: 1

CAS Number	Compound Name	RT	Est. Conc	Q
1. 117-82-8	Bis(2-methoxyethyl) phthalat	25.20	50	J
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US ARMY Ft. Monmouth

VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

FME+L# 1834,1

U

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6/dg-206, Mill-293178 Lab Name: EMSL ANALYTICAL Lab Sample ID: 9523163 Matrix (soil/water): WATER Lab File ID: C8335.D 25 mL Sample wt/vol: Date Received: 05/19/95 LOW Level (low/med): Date Analyzed: 06/02/95 % Moisture: not dec.: NA_ Dilution Factor: 1 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: Soil Extract Volume: NA CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L CAS NO. COMPOUND COMMENT 75-71-8-----Dichlorodifluoromethane .50 _.50 74-87-3-----Chloromethane U 74-83-9-----Bromomethane __.50 U _.50 75-01-4-----Vinyl Chloride ับ 75-00-3-----Chloroethane __.50 U 75-69-4----Trichlorofluoromethane .50 U 75-09-2----Methylene Chloride 1.4 В 156-60-65----trans-1,2-Dichloroethene ____.50 U 75-35-4----1,1-Dichloroethene ____.50 U 75-34-3-----1,1-Dichloroethane_ ____.50 U ___.50 594-20-7----2, 2-Dichloropropane U 74-97-1----Bromochloromethane ____.50 U ____.50 156-59-2---- cis-1,2-Dichloroethene TT ____.50 67-66-3-----Chloroform U ____.50 563-58-6----1,1-Dichloropropene ับ ____.50 107-06-2----1, 2-Dichloroethane U ____.50 71-55-6-----1,1,1-Trichloroethane U ___.50 74-95-3-----Dibromomethane U 56-23-1-----Carbon Tetrachloride _____ Ū ___.50 75-27-4----Bromodichloromethane U ____.50 78-87-1----1,2-Dichloropropane U _____.50 10061-01-1---cis-1,3-Dichloropropene U ____.50 142-28-9----1,3-Dichloropropane ับ ____.50 79-01-6----Trichloroethene U ___.50 124-48-1-----Dibromochloromethane Ŭ _.50 U 79-00-1-----1,1,2-Trichloroethane __.50 71-43-2----Benzene ับ __.50 10061-02-6---trans-1,3-Dichloropropene U __.50 IJ 75-25-2----Bromoform _.50 U 630-20-6----1,1,1,2-Tetrachloroethane __.50 127-18-4-----Tetrachloroethene U ___.50 U 79-34-1----1,1,2,2-Tetrachloroethane __.50 U 108-88-3-----Toluene _.50 106-93-4----1,2-Dibromoethane U _.50 ับ 108-90-7-----Chlorobenzene 100-41-4----Ethylbenzene ____.50 U

U= Not Detected

1330-29-7----Xylene(total)

FMETL # 1834,1

US ARMY Ft. Monmouth N.J

1A VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

EPA 52	£1dg.	206, MW 1-2931784
Lab Name: _EMSL ANALYTICAL Matrix (soil/water): _WATER_ Sample wt/vol: _ 25 mL Level (low/med): _LOW_ % Moisture: not dec.: _NA GC Column: _DB-624 x 75m _ID: _0.53mm Soil Extract Volume:NA	Lab Sample ID: 9523163 Lab File ID: C8335.E Date Received: 05/19/9 Date Analyzed: 06/02/9 Dilution Factor: 1 Soil Aliquot Volume: SOIT DIVIENTED TO THE SOIT OF TH) 95 95
CAS NO. COMPOUND	(ug/L or ug/Kg) _ug/L	COMMENT
100-42-1Styrene	.50	υ
98-82-8Isopropylbenzene	.50	U
108-86-1Bromobenzene	.50	U
96-18-41,2,3-Trichloropropane	.50	U
103-65-1n-Propylbenzene	.50	<u>"</u> "
95-49-82-Chlorotoluene	.50	<u> </u>
106-43-44-Chlorotoluene	.50	U
108-67-81,3,5-Trimethylbenzene	.50	<u>"</u> "
98-06-6tert-Butylbenzene	.50	<u></u>
95-63-61,2,4-Trimethylbenzene	.50	U
135-98-8sec-Butylbenzene	.50	U
541-73-11,3-Dichlorobenzene	.50	U
106-46-71,4-Dichlorobenzene	.50	U
99-87-64-Isopropyltoluene	.50	UU
95-50-11,2-Dichlorobenzene	.50	:J
104-51-8n-Jutylbenzene	.50	U
96-12-81, 2-Dibromo-3-chloroprop	oane .50	UU
120-82-11,2,4-Trichlorobenzene		U
87-68-3Hexachlorobutadiene	.50	U
91-20-3Naphthalene	.50	U
87-61-61,2,3-Trichlorobenzene_	.50	U

COMMENT

U= Not Detected

```
BLDG.#: 306 MW#: | NJDEPE WELL ID # 2931785
               U.S. ARMY FORT MONMOUTH
        MONITORING WELL SAMPLING DATASHEET
                      DATE: 5-18-95
IJO#95-0091
SAMPLING CONTRACTOR: EMSL Analytical Services Inc.
LABORATORY: EMSL Analytical Services, NJDEP CERT #:
SAMPLERS NAMES: Tom Baxter Suc. Palilonis
WEATHER CONDITIONS: Over Cast breeze
ELEVATION OF CASING SURVEY MARK:____.
TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: / 74 FT
DEPTH FROM SURVEYORS MARK TO SCREEN: . FT
LENGTH OF SCREENED SECTION: FT.
DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.15 FT
ELEVATION OF GW PRIOR TO PURGING:____.__FT
THICKNESS OF LNAPL PRIOR TO PURGING: . FT
PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS
    REMOVED: 1.8 PPM 1254 D.O. 1.8 71
ph: 5.90 TEMP: 19.9 C, SPECIFIC CONDUCTIVITY: 38 up/cm
DEPTH OF WELL:____FT
HEIGHT OF WATER:____FT
EVACUATED GAL. H20: \frac{15}{15} GAL \frac{17.59}{15} X .65 X \frac{3}{15} = \frac{14.2257}{15}
PURGING START TIME: 1300 END TIME: 1307
PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0
GPM) Pamp
PURGE RATE (<0.5 GPM): 2 GPM
TOTAL VOLUME PURGED: 15 GAL.
DEPTH TO WATER AFTER PURGING AND BEFORE
    SAMPLING: 4' .(, 7 FT
DISSOLVED OXYGEN: 1.7 ifm ph: 6.07 TEMP: C
SPECIFIC CONDUCTIVITY: 1503 Work
SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
    FSPM 1992) TEFLON® BAILER
START TIME OF SAMPLING: 1309 END TIME: 1316

DISSOLVED OXYGEN: 1,3000 ph: 6.31 TEMP: 18.4 °C
SPECIFIC CONDUCTIVITY: 272 USIM
COMMENTS: On 6 4 1243 in The his Suite of the little
That clean 4,24
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ALL 201 - 377

1A VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

FMETL# 1830,4 Bld; 206 164_ TRIP BlANK

Lab Name: EMSL ANALY	TICAL	Lab Sampl	e ID:	9523164	TRIP BLANK
Matrix (so \overline{i} 1/water):	WATER	Lab File	ID:	C8316.D	· -
Sample wt/vol:		Date Rece	ived:	NA -	
Level (low/med):	LOW	Date Anal	.yzed:	06/01/95	
% Moisture: not dec.:	NA .	Dilution	Factor	: 1	
GC Column: DB-624 x		Soil Alig	ruot Vo	lume:	NA
Soil Extract Volume:		_	_		
•	CON	CENTRATION	UNITS:		
CAS NO. COMPO	UND	(ug/L or ug	1/Kg) _	ug/L	COMMENT
75-71-8Dichle	orodifluoromethane		50_		ט
74-87-3Chlore			50_		U
74-83-9Bromo	methane		50_		U
75-01-4Vinyl	Chloride		50_		U
75-00-3Chlore	oethane	i	50_		ט ו
75-69-4Trich	lorofluoromethane	ł	.50		U
75-09-2Methy	lene Chloride		<u> </u>		В
156-60-65trans	-1,2-Dichloroethen	e	.50		U
75-35-41,1-D	ichloroethene		50_		U
75-34-31,1-D	ichloroethane	1	.50		U
594-20-72,2-D	ichloropropane		.50		U
74-97-1Bromo	chloromethane		50_		U
156-59-2 cis-1	,2-Dichloroethene		50_		U
67-66-3Chlore		1	50_		U
563-58-61,1-D	ichloropropene		50_		U
107-06-21,2-D	ichloroethane		.50		U
71-55-61,1,1	-Trichloroethane		50_		U
74-95-3Dibro	momethane		50_		บ
56-23-1Carbon	n Tetrachloride		50		บ
75-27-4Bromo	dichloromethane		50_		U
78-87-11,2-D	ichloropropane		50_		บ
10061-01-1cis-1	,3-Dichloropropene		50_		Ŭ
142-28-91,3-D	ichloropropane		50		บ
79-01-6Trich	loroethene		50		U
124-48-1Dibro	mochloromethane		50		U
79-00-11,1,2	-Trichloroethane		50_		U
71-43-2Benzer			50_		U
10061-02-6trans	-1,3-Dichloroprope	ne	50_		U
75-25-2Bromo:			50_		U
630-20-61,1,1	,2-Tetrachloroetha:	ne	50_		U
127-18-4Tetra			50_		U
79-34-11,1,2	,2-Tetrachloroetha	ne	50_	.	U
108-88-3Tolue			50_		<u>U</u>
106-93-41,2-D	ibromoethane		50	.	<u>U</u> _
108-90-7Chlore			50_	<u>- </u>	U
100-41-4Ethyl			50_	.	Ŭ
1330-29-7Xylene	e(total)		50_		Ŭ

U= Not Detected

1A VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

FMETL# 1830,4 Bldg 206

Lab Name: _EMSL ANALYTICAL_ Matrix (soil/water): _WATER Sample wt/vol:25_mL_ Level (low/med): _LOW % Moisture: not dec.: _NA GC Column: _DB-624 x 75m_ ID:_0.53mm_ Soil Extract Volume:NA COR CAS NOCOMPOUND	Lab Sample ID: 9523164 Lab File ID: C8316.D Date Received: NA Date Analyzed: 06/01/9 Dilution Factor: 1 Soil Aliquot Volume: (ug/L or ug/Kg) _ug/L_	5NA
100-42-1Styrene	.50	U
98-82-8Isopropylbenzene	.50	U
108-86-1Bromobenzene	.50	U
96-18-41,2,3-Trichloropropane_	.50	U
103-65-1n-Propylbenzene	.50	UU
95-49-82-Chlorotoluene	.50	U
106-43-44-Chlorotoluene	.50	U
108-67-81,3,5-Trimethylbenzene_	50	UU
98-06-6tert-Butylbenzene	50	UU
95-63-61,2,4-Trimethylbenzene_	.50	U
135-98-8sec-Butylbenzene	50	U
541-73-11,3-Dichlorobenzene	50	U
106-46-71,4-Dichlorobenzene	.50	UU
99-87-64-Isopropyltoluene	.50	UU
95-50-11,2-Dichlorobenzene	.50	J
104-51-8n-Butylbenzene	.50	J
96-12-81,2-Dibromo-3-chloroprop	pane50	U
120-82-11,2,4-Trichlorobenzene		J[
87-68-3Hexachlorobutadiene	.50	U
91-20-3Naphthalene	.50	<u></u>
87-61-61,2,3-Trichlorobenzene_	.50	UU

COMMENT

U= Not Detected

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. Bldg. 206 9523165B

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Lab Name: EMSL ANALY	IICAL	Contract:	Field Black
Project No.:	Site:	Location:	Group:
Matrix: (soil/water) W	ATER	Lab Sample ID	9523165B
Sample wt/vol: 10	000.0 (g/mL ML	Lab File I	D: <u>B7778.D</u>
Level: (low/med)	·	Date Received	: _5/19/95
% Moisture:	decanted: (Y/N):	N Date Extracted	: 5/25/95
Concentrated Extract Volume:	_1000_(uL)	Date Analyzed	: <u>6/2/95</u>
Injection Volume:	1.0 (uL)	Dilution Facto	r: <u>1.0</u>
GPC Cleanup: (Y/N)	N pH:		

		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	·Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4 Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	55	
206-44-0	Fluoranthene	1	Ŭ
92-87-5	Benzidine	1	U

US ARMY Ft. Monmouth

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
Bldg. 206
9523165B
Field Blank

FMETL # 18365

Lab Name: EMSL AN	ALYTICAL	Contract:	Field Blank
Project No.:	Site:	Location:	Group:
Matrix: (soil/water)	WATER	Lab Sample ID:	9523165B
Sample wt/vol:	1000.0 (g/mL ML	Lab File ID:	B7778.D
Level: (low/med)		Date Received:	5/19/95
% Moisture:	_ decanted: (Y/N):	N Date Extracted:	5/25/95
Concentrated Extract Vo	lume: 1000 (uL)	Date Analyzed:	6/2/95
Injection Volume:	1.0 (uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N pH	I:	
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	Ū
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	<u>-</u>	Ü
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	Ū
207-08-9	Benzo[k]fluoranthene	$\frac{1}{2}$	" "
50-32-8	·	$\frac{1}{2}$	U
	Benzo[a]pyrene		
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U
			
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US ARMY Ft. Monmouth N.J. FMETL # 1830,5 1F SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
BLd9 206
9523165B
9523165B Field Blank

Lab Name: EMSL ANA	LYTICAL			Contract:		
Project No.:		Site	::	Location:		Group:
Matrix: (soil/water)	WATER				Lab Sample ID:	9523165B
Sample wt/vol:	1000.0	_(g/mL)	ML		Lab File ID:	B7778.D
Level: (low/med)					Date Received:	5/19/95
% Moisture:		decant	ed: (Y/N)	N	Date Extracted:	5/25/95
Concentrated Extract Volu	me:	1000	_(uL)		Date Analyzed:	6/2/95
Injection Volume:	1.0	_(uL)			Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N		pH:			
Number TICs found:	1		C	Concentration		

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.92	14	J
	CIKIOWII	27.72	 	
2. 3.		+	 	
1 1		+	 	
4. 5. 6.		 	 	
-		 		
 		+		· · · · · · ·
8.		 		
8. 9.		+	 	
10.		+	 	
11.		 	 	
12.		 		
13.		 		
14.		 		
15.		1		
16.		 		
17.				
18.		†		
19.		1		
20.		1		
20. 21.				
22.				
23.				
24.		1		
25.				
26.				
27.				
28.				
29.				
30.			1	

1A VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

Lab Sample ID: 9523165 Field blank

Lab File ID: C8317.D

Date Received: NA

Date Analyzed: 06/01/95

Dilution Factor: 1

.50

.50

U

Matrix (soil/water): WATER _25_mL Sample wt/vol: Level (low/med): _TOM % Moisture: not dec.: _NA_ Dilution Factor: 1 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: Soil Extract Volume: NA CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT .50 75-71-8-----Dichlorodifluoromethane U .50 74-87-3----Chloromethane IJ 74-83-9-----Bromomethane __.50 Ū 75-01-4-----Vinyl Chloride __.50 U 75-00-3-----Chloroethane .50 Ū 75-69-4----Trichlorofluoromethane .50 U 75-09-2----Methylene Chloride 5.1 B __.50 156-60-65----trans-1,2-Dichloroethene TT __.50 75-35-4----1,1-Dichloroethene U .50 75-34-3----1,1-Dichloroethane TΤ 594-20-7----2,2-Dichloropropane .50 U 74-97-1----Bromochloromethane .50 U 156-59-2---- cis-1,2-Dichloroethene .50 .50 67-66-3-----Chloroform TT 563-58-6----1,1-Dichloropropene .50 _.50 107-06-2----1, 2-Dichloroethane U .50 71-55-6----1,1,1-Trichloroethane Ū 74-95-3-----Dibromomethane ____ 56-23-1----Carbon Tetrachloride .50 75-27-4-----Bromodichloromethane .50 U

.50 78-87-1----1,2-Dichloropropane U 10061-01-1---cis-1,3-Dichloropropene .50 U .50 142-28-9----1,3-Dichloropropane .50 79-01-6----Trichloroethene U .50 124-48-1----Dibromochloromethane U .50 79-00-1----1,1,2-Trichloroethane U 71-43-2----Benzene √. 50 U 10061-02-6---trans-1,3-Dichloropropene .50 U 75-25-2----Bromoform .50 U -.50 630-20-6----1,1,1,2-Tetrachloroethane U 127-18-4----Tetrachloroethene .50 U 79-34-1----1, 1, 2, 2-Tetrachloroethane .50 IJ 108-88-3----Toluene .50 U 106-93-4----1,2-Dibromoethane ___.50 TT 108-90-7----Chlorobenzene .50 U

U= Not Detected

100-41-4----Ethylbenzene

1330-29-7----Xylene(total)

Lab Name: EMSL ANALYTICAL

1A VOLATILE ORGANIC ANALYSIS DATA SHEET EPA 524.2

FMETC #1830,5 1Xdg 202

Lab Name: EMSL ANALYTICAL Matrix (soil/water): WATER Sample wt/vol: 25 mL Level (low/med): LOW % Moisture: not dec.: NA GC Column: DB-624 x 75m ID: 0.53mm Soil Extract Volume: NA COI CAS NO. COMPOUND	Date Rece Date Anal Dilution Soil Alic	Le ID: 9523169 ID: C8317.1 eived: NA lyzed: 06/01/9 Factor: 1 quot Volume: UNITS: g/Kg) ug/L	95 NA
100-42-1Styrene		.50	UU
98-82-8Isopropylbenzene		.50	_\U
108-86-1Bromobenzene		50	_ U
96-18-41,2,3-Trichloropropane		.50	U
103-65-1n-Propylbenzene		50	_ U
95-49-82-Chlorotoluene		.50	_ U
106-43-44-Chlorotoluene		.50	- U U
108-67-81,3,5-Trimethylbenzene		.50	- u
98-06-6tert-Butylbenzene		.50	-
95-63-61,2,4-Trimethylbenzene		.50	-
135-98-8sec-Butylbenzene		.50 .50	-
541-73-11,3-Dichlorobenzene 106-46-71,4-Dichlorobenzene	······································	.50	- u
99-87-64-Isopropyltoluene		.50	- <u>u</u> .
95-50-11,2-Dichlorobenzene	· · · · · · · · · · · · · · · · · · ·	.50	-
104-51-8n-Butylbenzene	······································	.50	-
96-12-81,2-Dibromo-3-chloropro	<u> </u>	.50	- <u>u</u>
120-82-11,2,4-Trichlorobenzene	/alle	.50	-
87-68-3Hexachlorobutadiene		.50	- u
91-20-3Naphthalene		.50	- "
87-61-61,2,3-Trichlorobenzene		.50	- <u>u</u>
T/2/3 III CIII OI ODEII ZEIIE			

COMMENT

r U= Not Detected



LABORATORY DELIVERABLES

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

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

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

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	X
2.	Table of Contents	X
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	X
4.	Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	X
5.	Document bound, paginated and legible.	X
6.	Chain of Custody	X
7.	Methodology Summary	X
8.	Laboratory Chronicle and Holding Time Check.	X
9.	Results submitted on a dry weight basis (if applicable).	X
10	Method Detection Limits.	X
11	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP.	X
12	Non-Conformance Summary	X
	Paul Tarain	27-95
Labo	oratory Manager or Environmental	Date

Laboratory Manager or Environmenta Consultant's Signature

EMSL

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

U.S. ARMY FORT MONMOUTH

9508273

	P.O. 11: 150 # 95-0091 /SAI]	Chain of Custody										
itomer: 5mg/ (A					unter)	Date .			P	Nna ara	lys	is ers				Star	t:	
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one: 9561		6224	mw,	Sampling			ŀ		+1/1	1/4		/	/	//	///	/ .	Prese	rvation Method
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METHODOLOGY SUMMARY

EPA Method 524.2 - Aqueous

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capiullary column (DB-624 0.53 mn ID).

Method detection limits are as stated.

Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. Federal Register, Vol. 40, No. 136, July, 1988.

An HP5890/5970B GC/MS was used with a DB-5 fused silica capillary column.

Method detection limits are as stated.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORM. EMSL

		<u>No</u>	ės
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)		X
2.	GC/MS Tune Specifications a. BFB Meet Criteria b. DFTPP Meet Criteria		X X
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.		<u> </u>
4,	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of. sample analysis for 600 series and 12 hours for 8000 series.		x
5.	GC/MS Calibration - Initial Requirements a. Calibration Check Compounds b. System Performance Check Compounds		<u>X</u> <u>X</u>
6.	Blank Contamination - If yes, list compounds and concentrations in each blank: a. VOA Fraction b. B/N Fraction c. Acid Fraction		<u>X</u>
7.	Surrogate Recoveries Meet Criteria		<u> </u>
	If not met, list those compounds and their recoveries which fall outside the acceptable range: a. VOA Fraction b. B/N Fraction c. Acid Fraction If not met, were the calculations checked and the results qualified as "estimated"?		~
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) a. VOA Fraction b. B/N Fraction c. Acid Fraction	X	
9.	Internal Standard Area/Retention Time Shift Meet Criteria		<u> </u>
-	lene Chloride MS/MSD 69%/70%, Xylene (meta+para) MS 65% RPD 32; Xylene (; Styrene MS/MSD 21%/39% RPD 62; 1,1,2,2 - Tetrachloroethane MS/MSD 122%		70%



GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT, cont.

		No	<u>Yes</u>
10.	Extraction Holding Time Met	····	X
	If not met, list number of days exceeded for each sample:		
11.	Analysis Holding Time Met		X
	If not met, list number of days exceeded for each sample:		
12.	Definitions: U=Not Detected. J=Detected, but below report detection limit.		
	B=Compound found in blank. E=Estimated concentration. NA=Not Applicable		
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1. Semi Volatile Organics	5-25-95		,	7 Days
Analyses				
1. Volatile Organics	6-1-95		6-2-95	14 Days
2. Semi Volatile Organics	6-2-95			40 Days

QC Supervisor Review & Approval (Signature) (Printed Name) Peter B. Panton

(Date) 1 25 15

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.

ATTACHMENT E

UST 287 Reports

- Underground Storage Tank Closure and Remedial Investigation Report (TVS, 2007)
- 1st Quarter 2009 Analytical Report for Well 287MW01
- 2nd Quarter 2009 Analytical Report for Well 287MW01

U.S. Army Garrison Fort Monmouth, New Jersey

Underground Storage Tank Closure and Remedial Investigation Report

Main Post - Building 287

NJDEP UST Registration No. 081533-61 NJDEP Case No. 93-11-29-1745-01 TMS No. C-93-3181 UST No. 287

January 2007

UNDERGROUND STORAGE TANK CLOSURE AND REMEDIAL INVESTIGATION REPORT

MAIN POST – BUILDING 287 NJDEP UST REGISTRATION NO. 081533-61 NJDEP CASE NO. 93-11-29-1745-01 TMS NO. C-93-3181

JANUARY 2007

PROJECT NO.: 03-38200

PREPARED FOR:

U.S. ARMY GARRISON, FORT MONMOUTH, NJ
DIRECTORATE OF PUBLIC WORKS
BUILDING 173
FORT MONMOUTH, NJ 07703

PREPARED BY:

TECOM-VINNELL SERVICES, INC. P.O. BOX 60 FT. MONMOUTH, NJ 07703

TABLE OF CONTENTS

EXE	CUTIV	E SUMMARY	IV						
1.0	UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES								
	1.1	Overview							
	1.2	Site Description	1 2						
		1.2.1 Geological/Hydrogeological Setting	2						
	1.3	Health and Safety	4						
	1.4	Removal of Underground Storage Tank	4						
		1.4.1 General Procedures	4						
		1.4.2 Underground Storage Tank Excavation	4						
	1.5	Underground Storage Tank Decommissioning and Disposal	5						
	1.6	Management of Excavated Soils	5						
2.0	REM	IEDIAL INVESTIGATION ACTIVITIES	6						
	2.1	Overview	6						
	2.2	Field Screening/Monitoring	6						
	2.3	Soil Sampling	7						
	2.4	Groundwater Investigation	7						
3.0	CON	ICLUSIONS AND RECOMMENDATIONS	8						
	3.1	Soil Sampling Results	8						
	3.2	Groundwater Sampling Results	8						
	3.3	Conclusions and Recommendations	8						

TABLE OF CONTENTS (CONTINUED)

FIGURES

Figure 1	Site Location Map
Figure 2	Soil Sampling Location Site Map-UST Closure
Figure 3	Soil Sampling Location Site Map-Remedial Post Excavation

TABLES

Table 1	Summary of Laboratory Analysis
Table 2	Summary of Laboratory Analytical Results - TPH
Table 3	Summary of Laboratory Analytical Results - VOA-Soils
Table 4	Summary of Laboratory Analytical Results – VOA, SVOA, TPH-Groundwater

APPENDICES

Appendix A	Certifications
Appendix B	Non-Hazardous Waste Manifest
Appendix C	UST Disposal Certificate
Appendix D	Photo Documentation
Appendix E	Soil and Groundwater Analytical Data Packages

EXECUTIVE SUMMARY

UST Closure and Project History

On October 28, 1993, a single wall fiberglass underground storage tank (UST) was closed by removal in accordance with the Directorate of Public Works (DPW) UST Management Plan for the U.S. Army Garrison, Fort Monmouth, New Jersey. The UST was located on the southwest corner of Building 287 on the Main Post of Fort Monmouth. UST No. 81533-61 (UST No. 61) was a 2,000-gallon single-wall fiberglass No. 2 heating oil tank for residential use. The fill port, vent pipe and associated supply/return piping were also removed during the excavation. The tank closure was performed by CUTE, Inc. Based on the review of Fort Monmouth UST records, it appears that the tank closure report was not submitted to NJDEP following the tank removal.

In 2003, the DPW Environmental Branch personnel conducted a review of the Fort Monmouth UST records. At that time, it was noted that the UST closure report for UST No. 61 was not on file at Fort Monmouth. It was assumed that the closure report was not submitted to NJDEP and a new subsurface investigation was conducted in the vicinity of the former UST to confirm the results of the 1993 closure. Subsurface investigation was performed by TECOM-Vinnell Services, Inc. (TVS) via a series of sampling events conducted between January and September 2004.

Site Assessment

The 1993 closure and site assessment was performed by CUTE, Inc. The follow-up site assessment conducted in 2004, was performed by TVS through the U.S. Army Garrison (USAG) - Department of Public Works (DPW) personnel in accordance with N.J.A.C. 7:14B and the NJDEP *Field Sampling Procedures Manual*. During the original tank closure, soils surrounding the tank were screened visually for evidence of contamination. Following removal, the UST was inspected for holes. No holes were found in the UST and potentially contaminated soils that were observed in the tank excavation were believed have originated from the original steel tank.

On November 2, 1993, approximately 8 cubic yards of potentially contaminated soils were removed from the sides of the excavation, due to presence of petroleum odors and staining in the soil. Groundwater was encountered at approximately 4.5 feet below surface grade in the bottom of the excavation.

Post-remediation soil samples were collected from the sidewalls and bottom of the expanded portion of the excavation after the removal of the UST. Samples Site A, Site B, Site C, Site D, Site E and Site F were collected from a total of six (6) locations along the sidewalls/bottom of the UST and piping excavation. All samples were analyzed for total petroleum hydrocarbons (TPH). Sample Site A was also analyzed for volatile organic compounds with a forward library search for 15 tentatively identified compounds (VO + 15) because the TPH result was above

1,000 milligrams per kilogram (mg/kg). This sample was also analyzed for semi-volatile organic compounds (BN+15) and lead. See Table 1 for a summary of laboratory analysis.

Findings

The initial post-remediation soil samples collected from the UST excavation associated with former UST No. 61 contained TPH concentrations below the NJDEP health based criterion of 10,000 milligrams per kilogram (mg/kg) for total organic contaminants (N.J.A.C. 7:26E and revisions dated February 3, 1994). Sample Site A was further analyzed for VO+15 and BN+15. There were no volatile organic compounds detected above the method detection limits. The semi-volatile organic analysis contained benzo(a)pyrene at a concentration of 1.2 mg/kg, which is above the NJDEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC) of 0.66 mg/kg. In July, 2004 an adjacent contaminated area was excavated and five post excavation samples were collected. All of these sample results were below the NJDEP health based criterion of 10,000 mg/kg for total organic contaminants.

Site Restoration

Following receipt of all post-remediation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and clean fill in compacted lifts. The excavation site was then restored to its original grade with four inches of topsoil, seeded and mulched.

Conclusions and Recommendations

Based on the post-remediation soil sampling results, the UST excavation was remediated below the NJDEP health based criterion of 10,000 mg/kg for total organic contaminants. In the sample analyzed for volatile organics, there are no detected compounds that exceed the NJDEP Residential Direct Contact Soil Cleanup Criteria.

No Further Action is proposed in regard to the closure and site assessment of UST No. 81533-61 at Building 287 of the Main Post.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 81533-61, was closed at Building 287 of Main Post at U.S. Army Garrison, Fort Monmouth, New Jersey on October 28, 1993. Refer to site location map in Figure 1. This report presents the results of the implementation of the DPW's UST Management Plan, March, 1996. The UST was a 2,000-gallon, single-wall fiberglass tank containing No. 2 heating oil for residential consumption.

Decommissioning activities for UST No. 61 complied with all applicable federal, state and local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. The closure and subsurface evaluation of the UST was conducted by a NJDEP licensed DPW employee.

This UST Closure and Remedial Investigation Report has been prepared by TVS to assist the U.S. Army Garrison-DPW in complying with the NJDEP - Underground Storage Tanks regulations. The applicable NJDEP regulations at the date of closure were the *Closure of Underground Storage Tank Systems* (N.J.A.C. 7:14B-9 et seq. December, 1987 and revisions dated April 20, 2003). Appendix A contains the Site Remediation Program UST Site Remedial Investigation Report form.

This report was prepared using information required by the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) (*Technical Requirements*). Section 1 of this UST Closure and Remedial Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the remedial investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in Section 3 of this report.

1.2 SITE DESCRIPTION

The Barker Circle area is located in the eastern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 61 was located approximately 30 feet southwest of Building 287. The fill port, vent pipe and appurtenant piping were attached to the tank and removed. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the Barker Circle Area. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

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

Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member

(Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium- to coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica and glauconite.

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

Hydrogeology

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

Based on records of wells drilled in the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (bgs). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore the direction of shallow groundwater should be determined on a case by case basis.

Shallow groundwater is locally influenced within the Main Post area by the following factors:

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

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

The nearest body of water to UST No. 287 is Oceanport Creek. This creek is located approximately 1,000 feet south of UST No. 287 and flows into the Shrewsbury River. Based on the Main Post topography, the groundwater flow in the area of Building 287 is anticipated to be to the south.

1.3 HEALTH AND SAFETY

Work site health and safety hazards were minimized during all decommissioning activities. All areas which posed a vapor hazard were monitored by a qualified individual utilizing a calibrated photo-ionizer detector: Thermo Instruments (OVM) — Model #580-B. The results of the air monitoring indicated that the air in the breathing zone was below OSHA permissible exposure limits (PEL's) during all phases of the UST removal and decommissioning procedures.

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- All underground utilities were marked out by the respective trade shops or utility contractor prior to excavation activities.
- All activities were carried out with great regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- An NJDEP certified Subsurface Evaluator was present during all closure and remediation activities.

1.4.2 Underground Storage Tank Excavation

During decommissioning activities, surficial soil was carefully removed to expose the UST. The tank was emptied of all liquids prior to removal from the ground. Approximately 230 gallons of liquid was pumped out of the UST by Freehold Cartage, Inc. into a tank truck and transported to Lionetti Oil Recovery Co., Inc. a NJDEP-approved petroleum recycling and disposal facility located in Old Bridge, New Jersey. Refer to Appendix B for non-hazardous waste manifest (No. NJA-1706535).

After the UST was removed from the excavation, it was staged on an impervious surface, labeled and examined for holes. No holes were found in the tank during the inspection by the Subsurface Evaluator. Soils surrounding the UST were screened visually and with an OVM for evidence of contamination. Soil staining and odors of petroleum hydrocarbons were observed, believed to be from the previous steel UST. Groundwater was encountered at approximately 4.5 feet below

surface grade. It was determined that remedial soil excavation would be conducted prior to sampling. DPW personnel were made aware of the field conditions. The DPW called the NJDEP Spill Hotline and Case No. 93-11-29-1745-01 was assigned to the site.

1.5 UNDERGROUND STORAGE TANK DECOMMISSIONING AND DISPOSAL

The UST was purged with air to remove vapors prior to cutting. A 4 feet by 3 feet access hole was made in the UST using a demolition saw. The UST was cleaned first with rubber squeeges and adsorbent material broomed on the sidewalls and bottom. The adsorbent material was then drummed and temporarily stored for proper disposal. The atmosphere in and around the tank was monitored using an OVM and an Oxygen/Lower Explosive Level (LEL) meter to ensure safe working conditions during cutting and cleaning activities.

The tank was then transported by CUTE to the Monmouth County Reclamation Center, Inc., Asbury Ave., Tinton Falls, NJ for disposal in compliance with all applicable regulations and laws. Refer to Appendix C for the UST disposal certificate.

The UST was labeled with the following information:

- site of origin
- NJDEP UST Facility ID number
- date of removal
- size of tank
- previous contents of tank

Photographic documentation of the UST is included in Appendix D.

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, approximately 8 cubic yards of potentially contaminated soil were excavated from the area surrounding the UST on October 28, 1993. On July 22, 2004, an additional 70 cubic yards of soil was excavated along the west side of the former UST excavation. All potentially contaminated soil was loaded into a truck and transported to the Main Post ID 27 Soil Staging Area (located near Bldg.166) prior to final recycling at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were separated during the excavation and used as backfill following removal of the UST.

2.0 REMEDIAL INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Remedial Investigation was managed by U.S. Army DPW personnel. All analyses were performed and reported by Fort Monmouth Environmental Testing Laboratory and Nytest Environmental, Inc. Both are NJDEP-certified testing laboratories. All sampling was performed by a NJDEP Certified Subsurface Evaluator according to the methods described in the NJDEP Field Sampling Procedures Manual (1992). The soil sampling frequency and analysis complied with the NJDEP document *Technical Requirements for Site Remediation*, 7:26E-3.9 (June 7, 1993 and revisions dated February 3, 2003) which was the applicable regulation at the date of the closure. All records of the Remedial Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Remedial Investigation Activities.

• Ft. Monmouth Directorate of Public Works-Environmental Division

Contact Person: Joseph Fallon Phone Number: (732) 532-6223

Subsurface Evaluator: Frank Accorsi

Employer: TECOM-Vinnell Services, Inc. (TVS)

Phone Number: (732) 532-5241 NJDEP License No.: 0010042

(TVS)NJDEP License No.: US252302

Analytical Laboratory: Fort Monmouth Environmental Testing Laboratory

Contact Person: Dan Wright Phone Number: (732) 532-4359

NJDEP Laboratory Certification No.: 13461

Hazardous Waste Hauler: Freehold Cartage, Inc., Freehold, NJ

Contact Person: Alfonso Trocchio Phone Number: (908) 462-1001 US EPA ID No.: NJD054126164

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP certified Subsurface Evaluator using an OVM and visual observations to identify potentially contaminated material. Soils were removed from the excavation surrounding UST No. 61 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On November 2, 1993, post-excavation soil samples Site A, Site B, Site C, Site D, Site E and Site F were collected from a total of six (6) locations along the sidewalls/bottom of the UST excavation. Groundwater was encountered in the excavation at approximately 4.5 feet. The results of the closure sampling are presented in Table 2.

On July 22, 2004, additional soil remediation occurred along the west side of the former UST excavation, extending west into the parking lot (approximately 30 feet by 30 feet and 8 feet deep). Approximately 70 cubic yards of soil were excavated. Five (5) post-remediation soil samples 287-PX1 through 287-PX5 were collected along the sidewalls and bottom of the excavation. Groundwater was not encountered in this excavation. Refer to soil sampling location map in Figure 3. All samples were analyzed for TPH.

The site assessment was performed by TVS personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including the sampling parameters is provided in Table 1. The post-remediation soil samples were collected using stainless steel trowels. After collection, the samples were immediately placed on ice in a cooler and delivered to Fort Monmouth Environmental Testing Laboratory and Nytest Environmental, Inc. for analysis.

2.4 GROUNDWATER INVESTIGATION

To determine if groundwater has been impacted, one monitoring well was installed in the location of the former UST on July 6, 1994. Two rounds of samples were collected in 1994, but were not collected again until 2004, in which quarterly sampling have occurred since then. Table 3 summarizes the analytical results of all groundwater sampling conducted at MW 287.

2.5 SUBSURFACE INVESTIGATION

A Geoprobe was utilized to delineate the vertical and horizontal extent of potential soil contamination that may have migrated from the source area. From February 19, 2004 to April 7, 2004, a series of nineteen (19) soil borings were taken in the area surrounding the former UST. This delineation was conducted in a manner that started near the source area and then stepped out in approximately 15 feet intervals, or as underground utilities would allow and field screened until no evidence of potentially contaminated soils existed. Two of the borings were used to set temporary piezometers in which groundwater samples were collected.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

Closure soil samples were collected from a total of five locations on November 2, 1993 to evaluate soil conditions following removal of the UST. Post-remediation soil samples were collected from five locations on July 22, 2004, to evaluate soil conditions following removal of potentially contaminated soil from the parking lot area. All samples were analyzed for TPH and the samples with the highest concentration was further analyzed for VOCs from each event. The soil sample results were compared to the NJDEP health based criterion of 10,000 mg/kg for total organic contaminants (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided on Table 2. The analytical data package, including associated quality control data, is provided in Appendix E.

Closure soil samples collected on November 2, 1993 from the UST closure/remedial excavation contained concentrations of TPH below the NJDEP soil cleanup criteria of 10,000 mg/kg total organic contaminants. Soil sample Site A was further analyzed for for volatile organic compounds with a forward library search for 15 tentatively identified compounds (VO+ 15) and semi-volatile organic compounds. The results of these analyses indicated that no VOA compounds were found above the detection limits. The semi-volatile organic analysis contained benzo(a)pyrene at a concentration of 1.2 mg/kg, which is above the NJDEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC) of 0.66 mg/kg.

All post-remediation soil samples collected on July 22, 2004 contained concentrations of contaminants below the NJDEP soil cleanup criteria. Post-remediation sample 287-PX3 had the highest TPH concentration of 2,458 mg/kg and was further analyzed for VOA. The VOA analysis concluded that there were no compounds present above the method detection limits.

3.2 GROUNDWATER SAMPLING RESULTS

Groundwater sampling analytical results from the samples collected from the monitoring well exhibited no contaminants above the NJDEP Class II Groundwater Quality Criteria.

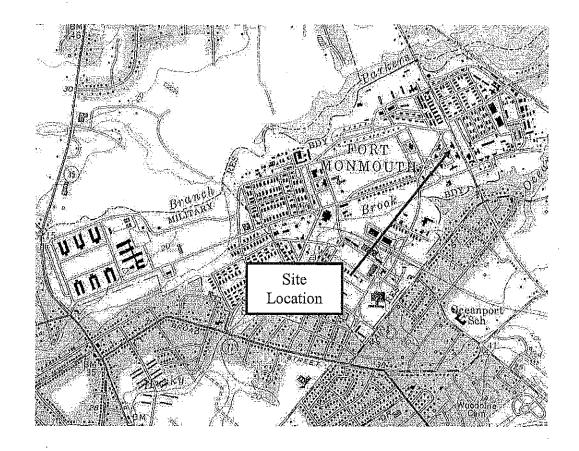
3.3 CONCLUSIONS AND RECOMMENDATIONS

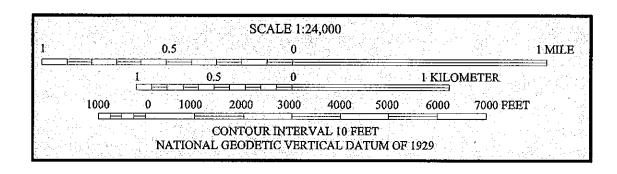
The analytical results for all closure and post-remediation soil samples collected from the UST excavation at UST No. 81533-61 were below the NJDEP soil cleanup criteria for total organic contaminants and volatile organic compounds.

Based on the post-remediation soil sampling results, soils with TPH concentrations exceeding the NJDEP soil cleanup criterion for total organic contaminants of 10,000 mg/kg have been excavated from the location of former UST No. 61.

No Further Action is proposed in regard to the closure and remedial investigation of UST No. 81533-61 at Building 287 of the Main Post.

FIGURES

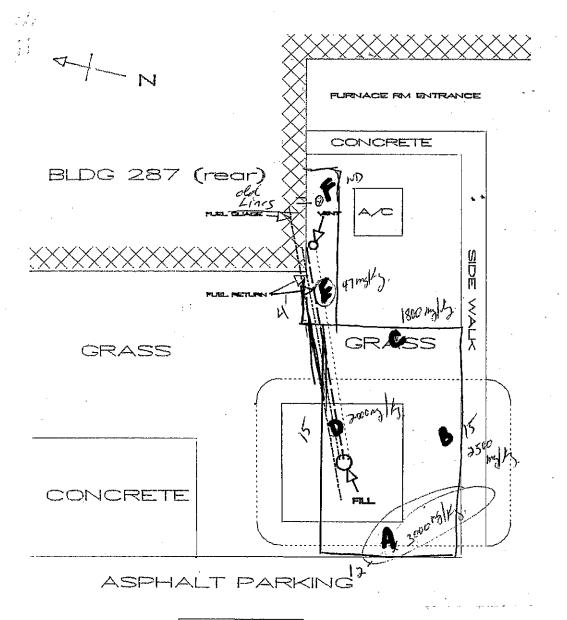




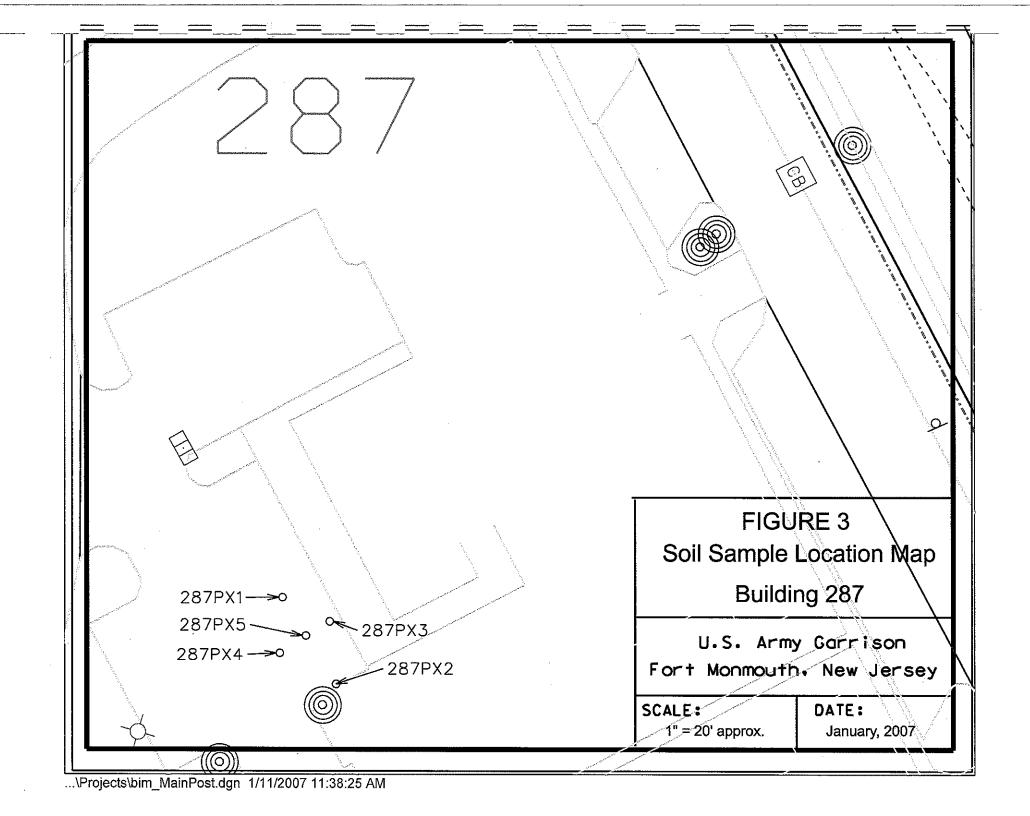
SOURCE: USGS $7\frac{1}{2}$ -MINUTE SERIES (TOPOGRAPHIC) LONG BRANCH QUADRANGLE, NEW JERSEY, 1981.

FIGURE 1

SITE LOCATION MAP BUILDING 287 UST NO. 81533-61 FT. MONMOUTH, NJ V



SCALE 1": 8 FIGURE 2



TABLES

TABLE 1

SUMMARY OF LABORATORY ANALYSIS

FT. MONMOUTH, Building 287, UST No. 287 2-Nov-93, 22-Jul-04

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE DATE	SAMPLE MATRIX	ANALYTICAL PARAMETER	ANALYTICAL METHOD			
Site A	1307.1	2-Nov-93	SOIL	TPH, VOA	OQA-QAM-25; SW-846, 8260			
Site B	1307.2	2-Nov-93	SOIL	TPH	OQA-QAM-25			
Site C	1307,3	2-Nov-93	SOIL	ТРН	OQA-QAM-25			
Site D	1307.4	2-Nov-93	SOIL	TPH	OQA-QAM-25			
Site E	1307,5	2-Nov-93	SOIL	TPH	OQA-QAM-25			
Site F	1307.6	2-Nov-93	SOIL	TPH	OQA-QAM-25			
287-PX1	4054801	22-Jul-04	SOIL	TPH	OQA-QAM-25			
287-PX2	4054802	22-Jul-04	SOIL	TPH	OQA-QAM-25			
287-PX3	4054803	22-Jul-04	SOIL	TPH, VOA	OQA-QAM-25; SW-846, 8260			
287-PX4	4054804	22-Jul-04	SOIL	ТРН	OQA-QAM-25			
287-PX5	4054805	22-Jul-04	SOIL	TPH	OQA-QAM-25			
287-PX6(dup)	4054806	22-Jul-04	SOIL	TPH	OQA-QAM-25			

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons, NJDEP Method OQA-QAM-025 (10/97) VOA = Volatile Organic Analysis, EPA SW-846 Method 8260

TABLE 2

SUMMARY OF LABORATORY ANALYTICAL RESULTS

FT. MONMOUTH, BUILDING 1006, UST No.800-21 02-Nov-93, 30-Oct-03

TOTAL PETROLEUM HYDROCARBONS

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH	MATRIX	TPH RESULTS
			(in feet)		mg/kg
Site A	1307.1	West End	4.5 – 5.0	Soil	3130*
Site B	1307.2	South End	4.5 – 5.0	Soil	2490
Site C	1307.3	East End	4.5 - 5.0	Soil	1840
Site D	1307.4	North End	4.5 – 5.0	Soil	1950
Site E	1307.5	Piping	0.5 - 1.0	Soil	47
Site F	1307.6	Piping	0.5 - 1.0	Soil	ND
287-PX1	4054801	North Wall	7.0 – 7.5	Soil	216
287-PX2	4054802	South Wall	6.5 - 7.0	Soil	581
287-PX3	4054803	East Wall	7.0 - 7.5	Soil	2458*
287-PX4	4054804	West Wall	7.0 – 7.5	Soil	ND
287-PX5	4054805	Bottom	8.0 – 8.5	Soil	ND
287-PX6(dup)	4054806	Duplicate (PX3-east wall)	7.0 – 7.5	Soil	ND

ABBREVIATIONS:

mg/kg = Milligrams Per Kilogram = parts per million

ND = Compound Not Detected

NA = Compound Not Analyzed

*= Further Analyzed for Volatiles

Gray shading indicates exceedance of NJDEP health based criterion of 10,000 ppm total organic contaminants

TABLE 3

SUMMARY OF LABORATORY ANALYTICAL RESULTS

FT. MONMOUTH, Building 287, UST No. 61 09-Nov-93, 22-July-04

VOLATILE ORGANIC COMPOUNDS - SOIL

SAMPLE	SAMPLE	Benzene	Toluene	Ethyl-	Xylenes			
ID				benzene	(total)			
	DATE							
UNITS		mg/kg	mg/kg	mg/kg	mg/kg			
Site A	09-Nov-93	ND	ND	ND	ND			
287-PX3	22-July-04	ND	ND	ND	ND			
NJDEP Criteria	Residential	3	1,000	1,000	410			

ABBREVIATIONS:

mg/kg = Milligrams Per Kilogram = parts per million

ND = Compound Not Detected

NA = Compound Not Analyzed

Notes:

Gray shading indicates exceedance of NJDEP Residential Direct Contact Soil Cleanup Criteria

APPENDIX A CERTIFICATIONS

Site Remediation Program UST Site Remedial Investigation Report
A. Facility Name: Building 287
Facility Street Address: 287 Barker Circle
Municipality: Oceanport County: Monmouth
Block: NA Lot(s): NA Telephone Number: 732-532-6223
B. Owner (RP)'s Name: U.S. Army - Directorate of Public Works
Street Address: 173 Riverside Ave. City: Ft. Monmouth
State: NJ Zip: 07703 Telephone Number: 732-532-6223
C. (Check as appropriate) □ Site Investigation Report (SIR) \$500 Fee □ Remedial Investigation □ Remedial Investigation □ Remedial Investigation
Report (RIR) \$1000 Fee • Tank Closure Number C(N)9 C 9 C9 3 3181 (7 characters)
E. Certification by the Subsurface Evaluator: The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E
F. Certification by the Responsible Party(ies) of the Facility: The following certification shall be signed [according to the requirements of N.J.A.C. 7: 14B-1.7(b)]as follows: 1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or 2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or 3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official. "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, 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."
Name (Print or Type): Title:
Signature:
Company Name: Date:

APPENDIX B

NON-HAZARDOUS WASTE MANIFEST



State of New Jersey Department of Environmental Protection and Energy Hazardous Waste Regulation Program Manifest Section ON 309 Transport N.I 08625-0028

		iton, NJ 08625-00	28	Fore	n Approved OM	7 Ma 205	0-0039. Expires 9-30-94
lease type or print in block letters, (Form designed t	or use on elite (12-pitch 1. Generator's US EPA		Manifest	2. Pac	10 1		
UNIFORM HAZARDOUS WASTE MANIFEST	N T 3 2 1 0 0	Doc	cument No.	of	1 is not	required	the shaded areas by Federal law.
3. Generator's Name and Mailing Address TTC	Army Communica	tiones Floctr	onics (A.SI	te Manifest Doci	ument.Nt	umber # # ################################
05 - / -	Army Communica	TIJOETH BENOLL	OHIES C		KIJA	177	06535
	James Shirghi			B. Sta	ate Generator's it		
	N: SELFM-DL-E			BI	La. 287-	UST	#815T33-61
4. Generator's Phone (108) 532-	O-04 Fort	Mormouth, NJ	07703	A. 198	o c	- 43	-3/9/
5. Transporter 1 Company Name	↓ 6.	US EPA ID Number		Ma	in Post	7.45234	
Freehold Cartage Inc.	N J_	D 0 5 4 1 2 6	1 6 4	C. 3	MUSCHE	<u> </u>	るのか
7. Transporter 2 Company Name	8.	US EPA ID Number	•	D. Tra	ansporter's Phon	e (90g	3)462-1001
	1 1		1 1 1	E. Sta	ate Trans, ID		11年1日 11日 11日 11日 11日 11日 11日 11日 11日 11
Designated Facility Name and Site Address	10.	US EPA ID Number		1			
Lionetti Oil Recovery Co.				F To	namadasia Dha		
Runyon & Cheesequake Rds.	,				ansporter's Phon	3 (→ 議員を持ちる場合の対象を含む ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・
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Old Bridge, NJ 00057	N J	D[0]8 4 0 4 4	+10 6 4	į H. Fac	cility's Phone (·)	<u> 908)7</u>	21-0900
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11. US DOT Description (Including Proper Shippin	g Nama, Hazard Class, ar	ia ID Numberj	No.	Тура	Total Quantity	Unit Wt/Vol	Macta No.
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Combustible Liquid	UN 1270 PG II	-L	1		ゾ ゾつつ	1/2	
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J. Additional Descriptions for Materials Lister T, L. Petroleum Oil	χe			K. He	andling Codes for	Wastes	Listed Above
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l e.	d.			b.		d.	
15. Special Handling Instructions and Additional In							
NOT EPA REGULATED, REGULATED		WASTE IN NJ					
24 HOUR EMERGENCY# 201-427-2	881	•					
NJ DECAL# 48594		ERG# 27	•				
16. GENERATOR'S CERTIFICATION: I hereby dec	lare that the contents of t	his consignment are fully	and accurat	elv desc	cribed above by i	oroper sh	ipping name and are
classified, packed, marked, and labeled, and	are in all respects in pro	per condition for transp	ort by highw	ay acco	ording to applica	ble interr	national and national
government regulations.							
if I am a large quantity generator, I certify that	have a program in place	to reduce the volume and	d toxicity of v	vaste ge	enerated to the di	egree I ha	ave determined to be
aconomically practicable and that I have selected future threat to human health and the environm	ent: OR. if I am a small qu	or treatment, storage, or antity generator, I have n	nade a dood	faith eff	ort to minimize m	y waste (generation and select
the best waste management method that is ave			1				
?rinted/Typed Name		Signature 1		•			Month Day Year
Charles M. Appleby SEII	EM-AW-EV	1150	75T)				11 101-1931
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APPENDIX C UST DISPOSAL CERTIFICATE

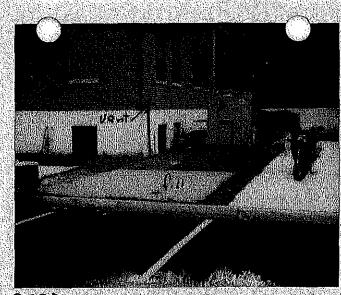
UNDERGROUND STORAGE TANK (UST) CLOSURE CERTIFICATION

NJDEP UST REGISTRATION NO. 81533-61
DATE TANK REMOVED Oct. 28, 1993
IJO / CONTRACT NUMBER 93-1016
I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NIAC 7:14B-9:2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.
NAME (Print or Type) John Lonergan
SIGNATURE
NJDEP UST CLOSURE CERTIFICATE NO. 0003248
COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc.
NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128
DATE OF SUBMITTAL 2/20/95

PREESOBISZ	32709 UTV ID NO. 1338F15P01 EIPT DOCUMENT NUMBE 01337919 800 37360
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3.91 Tons Bulky Waste Fiberglass tank disposal Bldg 208A, 282, 205, 207A, 287, 206

APPENDIX D PHOTO DOCUMENTATION

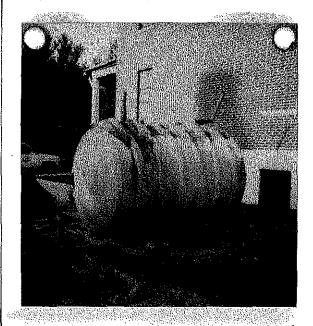


8287 200gel #2 fuel a:1 1117 1123 81533-61 Poddowsky





Big. 287 co#/BN/96 Song/2 of Star highest Cont. TPHC - C. Apples 11/8/93



) & G

APPENDIX E ANALYTICAL DATA PACKAGES

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

Client: U.S. Army

DEH, SELFM-EH-EV

Bldg. 167

Ft. Monmouth, NJ Ø77Ø3

Lab. ID #: 1307.1-.6 Sample Rec'd: 11/02/93 Analysis Start: 11/02/93

Analysis Comp: 11/02/93

Analysis: 418.1 (TPH)

Matrix:

Soil

Analyst: S. Hubbard Ext. Method: SONC.

NJDEPE UST Reg.#: 0081533-61

TMS #: C-93-3181

NJDEPE Case #:

Location #: Bldg. # 287

Lab ID.	Description			%Solid	Result (mg/k	
1307.1	Site A, 4.5 - 5'	hNu=5.Ø	*	82	3130.	140
1307.2	Site B, 4.5 - 5'	hNu=6.Ø	*	83	2490.	14Ø
1307.3	Site C, 4.5 - 5'	hNu=4.0	*	84	1840.	7Ø.
1307.4	Site D, 4.5 - 5'	hNu=5.0	*	87	1950.	14Ø
1307.5	Site E, 1'	hNu=ND	* #	8 <i>5</i>	47.4	3.3
1307.6	Site F, 1'	hNu=ND	×	83	ND	6.6
						ET ET ET ET
M. BL.	Method Blank			100	ND	3.3

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

* = Silica Gel Added

= Very heavy color noted during extraction

1307.6 Dup.=100% 1307.6 Spike=111% 1307.6 Spike Dup.=107% RPD: 97%

Brian K. McKee

Laboratory Director



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

Client:

US Army

DPW.SELFM-PW-EV

Bldg173

Ft. Monmouth, NJ 07703

Project #:

Location:

UST Reg. #:

40353

Bldg.287

Analysis:

OQA-QAM-025

Date Received:

11-May-04

Matrix:

Aqueous

Date Extracted:

13-May-04

Inst. ID. :

GC TPHC INST. #1

Extraction Method:

SepFunnel

Column Type :

RTX-5, 0.32mm ID, 30M

Analysis Complete :

17-May-04

Injection Volume:

1uL

Analyst:

B.Patel

Sample	Field ID	Dilution Factor	Final Volume (ml)	Initial Volume (ml)	MDL (mg/L)	TPHC Result (mg/L)
4035301	Field Blank	1.00	5.00	250.00	0.8	ND
4035302	GW1	1.00	5.00	250.00	0.8	ND
4035303	GW2	1.00	5.00	250.00	0.8	2.2
	-					
 -						.
·						
METHOD BLANK	MB-051304-01	1.00	5.00	250.00	0.8	ND

ND = Not Detected

MDL = Method Detection Limit

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

40353 01 Field Blank 5/11/04 920 Agu 02 GWI 0825 -03 GW2 - 0835					Analysis Parameters Comments:					Comments:				
Phone #: X 20	986	Location:	3/da 28	37										
		<u></u>	-	,		7								
Samplers Name / Co	mpany: George R	oyce (rvs)	Sample	#	PF					7			
LIMS/Work Order#	_			Туре	bottles	1	a militar 14							Remarks / Preservation Method
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Report of Analysis U.S. Army, Fort Monmouth Environmental Laboratory NJDEPE Certification # 13461

Chient: U.S. Army

DEH, SELFM-EH-EV

Bldg. 167

Ft. Monmouth, NJ 07703

Lab. ID #: 1307.1-.6

Sample Rec'd: 11/02/93

Analysis Start: 11/02/93

Analysis Comp: 11/02/93

Analysis: 418.1 (TPH)

Ma'trix: Soil

Analyst: S. Hubbard

Ext. Method: SONC.

NJDEPE UST Reg.#: 0081533-61

TMS #: C-93-3181

NJDEPE Case #:

Location #: Bldg. # 287

Lab ID.	Description		%Solid	Result (mg/	
1307.1	Site A, 4.5 - 5' hNu=5.0	*	82	3130.	140
1307.2	Site B, 4.5 - 5' hNu=6.0	*	83	2490.	14Ø
1307.3	Site C, 4.5 - 5' hNu=4.0	*	,84	1840.	7Ø.
1307.4	Site D, 4.5 - 5' hNu=5.0	*	87	1950.	140
1307.5	Site E, 1' hNu=ND	* #	8.5	47.4	3.3
1307.6	Site F, 1' hNu=ND	*	83	ND	6.6
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M. BL.	Method Blank		100	ИД	3.3

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

* = Silica Gel Added

= Very heavy color noted during extraction

1307.6 Dup.=100% 1307.6 Spike=111% 1307.6 Spike Dup.=107% RPD: 97%

Brian K. McKee

Laboratory Director



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Relinquished	, ∕By (≘ X	ignat.	•	,	/ Tim		ceived E	ρ /	l əti	ure)	9	Ll 5hip	ped	-,	~/).	<u> </u>			<u>i</u>
Relinquished	By (≤	signatu					metal	or Lab b	الرو	ysic 7	gnal	ure):			 93 /:	J	y	
Mote: A drawi of cust	ing de cody.	pictir	ng samp	ole l										reve	rse	side o	af Ela	is cha	ain
SAI-ENV COC f	orm C	1			Pagr	<u> </u>	↓ of			Page	≥s :		Rev	. A	Dat	e: U2	Flpr 1	93	

november 2, 1993 1306.1 1306.2 ND 1306.3 (die 7) 1308.4 (del 7) 89 6,156 Mg/kg 1308.5 (de 7) 17 1, 174 mg/kg 1306.6 (01) 13.W 9,238 Mg/K Bulding 287 1307-1 del 7 44 MV 3mg/kg del 7 35 MU 2,490 mg/k 53 1,836 mg/K 1307.6 1307,6 pup NO 1307.6 Spk 63 MV 210 mg/s -1307.6 DUPSPY 61

Restrict Education

PHC Conformance/Non-conformance Summary Report	<u>No Yes</u>
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	<u> </u>
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	
 3. IR Spectra submitted for standards, blanks, & samples 4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted. 5. Extraction holding time met. (If not met, list number of days exceeded for each sample) 	
6. Analysis holding time met. (If not met,list number of days exceeded for each sample)	- 100 / - 100
Comments:	

Laboratory Authentication Statement

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

Brian K. McKee Laboratory Manager

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

Client: U.S. Army

DEH, SELFM-EH-EV

Bldg. 167

Ft. Monmouth, NJ 07703

Lab. ID #: 1307.1-.6

Sample Rec'd: 11/02/93

Analysis Start: 11/02/93

Analysis Comp: 11/02/93

Analysis: Munsel

Lab ID#	Soil Color	
1307.1	2.5Y 4/2 dark grayish brown	
1307.2	2.5Y 4/2 dark grayish brown	
1307.3	2.5Y 4/2 dark grayish brown	1 1 1121111
1307.4	2.5Y 4/2 dark grayish brown	
1307.5	2.5Y 4/3 olive brown	
1307.6	2.5Y 4/2 dark grayish brown	
		·

Brian K. McKee Laboratory Director

Perond for SAI 12/7/83 Cd., Clean all & MDC

CENTURAL PONMENT

618 HERON DRIVE, P.O. BOX 489 • BRIDGEPORT, NJ 08014-0489 • 609-467-9521

E-SYSTEMS, INC

PROJECT: U.S. ARMY FORT MONMOUTH, NJ BLDG 287

ANALYSIS NO:	CLIENT ID:
A 5226	1316.1 SIN A-2
A 5227 .	1316.2
A 5228	1316.3

DATE RECEIVED: NOVEMBER 9, 1993

TWENTY FIRST CENTURY ENVIRONMENTAL, INC.

RICEARD W. LYNCH LABORATORY MANAGER

TO

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT MONMOUTH, NJ BLDG 287

LEAD

ANALYSIS NO:	CLIENT ID:	MDL (mg/Kg)	RESULT (mg/Kg)
A 5226	1316.1	5.00	23.5

TO

JOB NUMBER		MATR
SAMPLE NUMBER	A5226	DILU
CLIENT 10	1316.1 BLOG 297	DA B
DATA FILE	>82063	DATE

MATRIX	
DILUTION FACTOR	5.00
DA BATCH	
nate analyzen	11/10/93

COMPOUND	UG/KG	MOL.	COMPOUND	UG/KG	MDI
医国际保护技术技术内容		»kažinas	*************************************		
Acrolein	ND	310	Bronodichloromethens	NO	33
Acrylonitrils	ND	310	2-Chloroethylvinylether	₩D	62
Chloromethane	ND	62	2-Hexanone	NO .	62
Browowe thank	ND	62	trans-1,7-Dichloropropens	ND	33
Vinyl Chloride	ND	62	Toluene	NÓ	31
Chloroethane	ND	62	cis-1,3-Dichloropropena	ND	3
Acetone	ND	62	1,1,2,2-Tetrachlorpethane	₩D	31
1,1-Dichloroethene	ND	. 31	1,1,2-Trichloroathama	ND	31
Carbon Disulfide	ND	62	4-Nethyl-2-pentanone	ND	67
Methylene Chloride	ND	31	Tetrachlorosthens	NO	3
1,2-Dichloroethens(trans)	ND	31	Dibromochloromethene	NO	31
1,1-Dichlorosthans	NO	31	Chlorobenzene	ND	31
Vinyl Acetate	NO	31	Ethylbenzene	ND.	31
2-Butanone	ND.	62	m&p-Xylenes	NO	31
Chigroform	NO	31	o-Xylene	ND	31
1,1,1-Trichlorosthans	NO	31	Styrens	ND	3:
Carbon Tetrachloride	ИD	31	Brossform	ND	31
1,2-Dichloroethane	ND	31	m-Dichlorobenzene	ND	31
Benzene	NO	31	p-Dichlorobenzene	NÖ	31
Trichlorosthens	ND:	31	o-Dichlorobenzene	NO	3:
1,2-Dichloropropana	NO	31			

SURROGATE COMPOUNDS	* RECOVERY	<u>limits</u>	STATUS
1,2-Dichloroethane-d4	111	70 - 121	CK
Taluene-d8	99.3	81 - 117	OK
Bramofluorobenzene	94.9	74 - 121	ÐK

Percent Solid of 81.8 is used for all Target compounds.

⁽J) Indicates detected below MDL

⁽B) Indicates also present in blank (ND) Indicates compound not detected

21st Century Environmental Inc. SEMIVILATILE ANALYSIS DATA

MATRIX Soil
DILUTION FACTOR 10.00

QA BATCH
DATE ANALYZED 11/15/93

TO

COMPOUND	ug/kg	!#DL	COMPOUND	ug/kg	MDL
· · · · · · · · · · · · · · · · · · ·		1221217		************	
N-Nitrosodimethylamine	ND	4100	Acenaphthene	NO	4100
Phenol	₩D	4100	2,4-Dinitrophenol	ND	20000
bis(~2-Chloroethyl)Ether	ND	4100	4-Nitrophenol	ND	20000
2-Chalarophenol	NĐ	4100	Dibenzofuran	NÔ	4190
1,3-Dichlorobenzene	ND	4100	2,4-Dinitratoluene	ND	4100
1,4-Dichlorobenzene	ИD	4100	2,6-Dinitrotoluane	ND	4100
Benzyl Alcohol	HD	4100	Diathylphthalate	HD	4100
1,2-Dichlorobenzene	NO	4100	4-Chlorophenyl-phenylether	NO	4100
2-Methylphenol	HD	4100	Fluorene	NO	4100
bis(2-chloroisopropyl)Ether	ND	4100	4-Nitroaniline	ΝĎ	20000
4-Methylphenol	NO	4100	4,6-Dinitro-2-Methylphenol	ND	20000
N-Nitroso-Di-n-Propylamine	ND)	4100	N-Nitrosodiphonylamine	860 J	4100
Hexachloreathans '	ND	4100	4-Bromophanyl-phenylether	NO	4100
Nitrobenzene	ND	4108	Héxach lorobenzene	ND	4100
Isophorone	ND	4100	Pentachlorophenol	ИØ	20000
2-Nitrophenol	ND	4100	Phenanthrene	860 J	4100
2,4-Dimethylphenol	NE)	4100	Anthracena	ND	4100
Benzoic Acid	ND	20000	· Di-n-Butylphthalate	NO	4190
bis(-2-Chloroethoxy)Methans	NO	4100	Fluoranthana	1290 J	4100
2,4-Dichlorophenol	NO	4100	Pyrene	1900 J	4100
1,2,4-Trichlorobenzene	ND	4100	Butylbenzylphthalate	HD)	4100
Naphthalene	NO	4100	3,3'-Dichlorobenzidine	ND	8100
4-Chloroaniline	ND	4100	Benzo(a)Anthracene	ND	410(
Hexach turobutadiene	ND	4100	Bis (2-Ethylhexyl)Phthalate	ND	4100
4-Chloro-3-Methylphenol	ND	4100	Chrysene	890 J	4100
2-Hethylnaphthalene	NO	4100	Di-n-Octyl Phthalate	ND	410
Hexachlorocyclopentadiene	ND	4100	Benzo(b)Fluoranthene	NO	410
2,4,6-Trichlorophenol	ND	4100	Benzo(k)Fluoranthene	ND	410
2,4,5-Trichlorophenol	ND	20000	Benzo(a)Pyrana	1200 J	410
2-Chloronaphthalene	NÐ	4100	Indeno(1,2,3-cd)Pyrene	ND	410
2-Nitrosnilins	ND	20000	Dibenzo(a,h)Anthracene	ND	4101
Dimethyl Phthalate	NEO	4100	Benzo(g,h,i)Perylena	<i>7</i> 20 J	410
Acenaghthylena	ND	4100	Benzidîne	ND	810
3-Nitroeniline	ND	26600			

Percent Solid of 81.0 is used for all Target compounds.

⁽J) Indicates detected below MDL.

⁽B) Indicates also present in blank

⁽ND) Indicates compound not detected

21st Century Environmental Inc. VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER SAMPLE NUMBER A5227 1316.2 BLDG 287 CLIENT 1D DATA FILE >643.75

MATRIX DILUTION FACTOR Water. 1.00 DA BATCH DATE ANALYZED 11/11/93

不民意不是祖祖祖教者者在祖祖祖教教教会的社会会社会会会		221622244				
COMPOUND	UG/L	MOL	COMPOUND	UG/L	HOL	
使中国西西西西西西西 西西西西西西西西西西西西西西西西西西西西西西西西西西西西西	· 医斯克克莱特氏类的复数形式		第二角式有其具有有限表现要用手用电子等等等等等等等等等	. Sadaga di karanca	RKELLÄRI	
Acrolein	ND -	50	Bromodichloromethans	ND	5	
Acrylonitrile	NO	5 0	2-Chlorosthylvinylether	ND	10	
Chloromethane	ND	10	2-Hexanona	NO	10	
Browne thans	ND	19	trans-1,3-Dichloropropens	ND	5	
Vinyl Chloride	ND	10	Toluma	ND	5	
Chloroethans	HD	10	cis-1,3-Dichloropropens	ND	5 5	
Acetone	7.7 J	10	1,1,2,2-Tetrachloroathane	NO	5	
1,1-Dichlorgethene	ND	5	1,1,2-Trichloroethane	ND	5	
Carbon Disulfide	ND	18	4-Methy1-2-pentanona	ND	18	
Methylene Chloride	3.8 J	5	Tetrachioruethene	NO	5	
1,2-Dichlorosthene(trans)	ND	5	Dibromochloromethana	NO	5	
1,1-Dichlorosthans	HD	5	Chlarobenzene	NO	5	
Vinyl Acetate	ND	9	Ethylbenzene	HD	5	
2-Butanone	ND	10	nip-Xylenes	NÖ	5	
Chloroform	NO	5	a-Xylene	₩Ď	5 5	
1,1,1-Trichlorosthame	ND .		Styrens	ND	5	
Carbon Tetrachloride	ND	5 5	Bromoform	ND	5	
1,2-Dichlorosthane	HD)	9	m-Dichlorobenzene	HD	5	
Benzene	NO	5	p-Dichlorobenzene	NO	5	
Trichloroethene	ND.	5	o-Dichtorobenzene	HD)	, \$	
1,2-Dichloropropane	椒	5			-	

SURROGATE COMPOUNDS	X REDOXERY	LIMITS	STATUS
1,2-Dichloroethene-d4	78.2	76 - 114	OK
To luene-d8	102	88 - 110	OK
Bromofluorobenzene	109	86 - 115	OK

⁽J) Indicates detected below MOL

⁽B) Indicates also present in blank (ND) Indicates compound not detected

CERTIFICATE OF ANALYSIS

U.S. ARMY-FORT HONMOUTH, NJ BLDG 287

ANALYSIS NO:	CLIENT ID:	MDL (mg/L)	RESULT (mg/L)
A 5228	1316.3	0.05	N.D.

----- 21ST CENTURY ENVIRONMENTAL - NJDEPE CERTIFICATION #08031 -

U.S. ARMY FORT MONMOUTH

·				P-0. #: Asuilar/94-0843											Chain of Custody			
Project #:			1	1 ~ ~ 1			Date .			A Pa	Analysis Parameters				Start:			
Customer: (, SELF m-PV	. Agpled - EV		Di Schmitt Site Name: Blds 287 DICAR#- 93-11-29-1745-01			# of Bottles 2 2 2			<u>.l</u>					Finish:				
Phone: (908) 5	32-60	124		NW Sampling				٤	44/		X /.	//			/·/ .	Preser	vation Method	
Lab Sample [.] ID Number	Date/	Time	Ci	ustomer Sample ation/ID Numbe	r	Sample Matrix	.# of Bottles	10 M			//				RI RI	emarks	ne choa	
1223.1	1/2/94	1335	MU	-1, 2930964		AQ	4	2	2					2	Sample Kept	Lijoc		
•													•				·	
1716.1	11-9-94	1 0845		to Blank	· ·	12	4	7	2		_					 		
-,2			7-	P Blank		1	2	2	<i>F</i>						, ·			
- - 3	1/	0845	Du	objecte		1	4	2	غ	-					Hru SN 8			
- 00000 - 00000											_			-	14nu= 2 Calibrated	11/4/44		
T 1 A															1			
Reished			ire>	Date / Time		ceived	By (sign	atur	-e)	Sł	ippe	d By	:					
Relinquished																		
Note: A draw of cus	ing d	epictir	ng sa	mple location	sho			or	dra	พก รุ	n th	e re	ver	se	side of	this cha	ein	
SAI-ENV COC	form	10		Page			f		age	5	R	ev.	fl	Dat	e: 02 Ap	- 93	•	

Enviornmental Laboratory

FORT MONMOUTH ENVIRONMENTAL

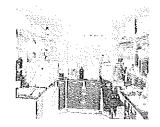
TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

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

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



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

Bldg. 287

Laboratory	Matrix	Date and Time	Date Received
Sample ID#		Of Collection	
4054801	Soil	22-Jul-04 13:00	07/22/04
4054802	Soil	22-Jul-04 14:00	07/22/04
4054803	Soil	22-Jul-04 13:10	07/22/04
4054804	Soil	22-Jul-04 13:45	07/22/04
4054805	Soil	22-Jul-04 13:25	07/22/04
4054806	Soil	22-Jul-04 13:10	07/22/04
4054807	Methanol	22-Jul-04	07/22/04
	Laboratory Sample ID# 4054801 4054802 4054803 4054804 4054805 4054806	Laboratory Sample ID# 4054801 Soil 4054804 Soil 4054805 Soil 4054806 Soil	Sample ID# Of Collection 4054801 Soil 22-Jul-04 13:00 4054802 Soil 22-Jul-04 14:00 4054803 Soil 22-Jul-04 13:10 4054804 Soil 22-Jul-04 13:45 4054805 Soil 22-Jul-04 13:25 4054806 Soil 22-Jul-04 13:10

ANALYSIS:

FORT MONMOUTH ENVIRONMENTAL LAB VOA+15, TPHC, %SOLIDS

ENCLOSURE: CHAIN OF CUSTODY RESULTS

> Daniel Wright/Date Laboratory Director

Table of Contents

Section	Page No.				
Chain of Custody	1-3				
Method Summary	4-5				
Laboratory Chronicle	6-9				
Conformance/Non-Conformance Summary	10-11				
Volatile Organics Qualifier Codes Results Summary Calibration Summary Method Blank Summary Surrogate Results Summary MS/MSD Results Summary Internal Standard Summary Raw Sample Data	12 13 14-22 23-25 26 27 28 29 30-35				
Total Petroleum Hydrocarbons Result Summary Calibration Summary Surrogate Results Summary MS/MSD Results Summary Raw Sample Data	36 37 38-44 45 46-47 48-61				
Laboratory Deliverable Checklist					
Laboratory Authentication Statement	63				

CHAIN OF CUSTODY

Fort Monmouth Environmental Testing Laboratory

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

Tel (732)532-4359 Fax (732)532-6263 EMail:appleby@mail1.monmouth.army.mil NJDEP Certification #13461

Chain of Custody Record

Customer: DOUG GUENTHER		Project No: C4-3960/					······································	Апа	lysis I	Comments:				
Phone #: X 2 0986		Location: B. 287					X	1	[Comments,	
()DERA ()OMA	Coodion. D. 20 /					1					II			
Samplers Name / Con	ACCORSI-TUS Sam			#	41	15					#6	#	•	
Lab Sample LD.	Sample Location	Date Time		Type bott		1	021					13	No	Remarks / Preservation Method
40548 Q1	287-FXL, NERTH	7-22-04		5016	2	Х	X					7-7.5	å05D	106
	287-PX2 SOUTH WALL		1400			X	X	1				6.5-7	,	1 / 02
03	287-PX3, with		1310			X	× ×					7-7.5	· · ·	
	287-PX4, WEST		1345			X	X	<u> </u>					1053	
0.5	287-PX5 60770m		1325			χ	χ					8-8.5		
06	287-PXG, DUTLICATE		1310	V		Ϋ	γ						#55	T
07	TRIP BLANK	#		AQ	1	χ	χ					·	456	
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											7			
Report Type: ()Full, [6]	Report Type: ()Full, ()Reduced, ()Standard, ()Screen / non-certified Remarks: VO +15 0 N 25 70 > 1,000 ffm TPH, 0 m													
urnaround time: ()Standard 4 wks, ()Rush Days, ()ASAP Verbal Hrs.														

Change of Chain of Custody

Requested by: Turnaround Ti 1. Were the cor 2. Was sufficien 3. Are samples 4. Was the char	o#: 40548 i: 7-22-04 (print) me: rect containers and/or preservation amount of sample sent for the within holding time for new analoge documented in the receipt log (print)	tests indicated? lysis? gbook?	Jeryin
	N T	T Causel-	Nam
Sample	New Analysis	Sample ID#	New Analysis
ID#	Allarysis	10#	Allalysis
40040 60	087718		
-d 07			
Comments:			

METHOD SUMMARY

Method Summary

EPA SW-846 Method 8260 Gas Chromatographic Determination of Volatiles in Methanol

A 10-gram volume of soil is combined with 25-ml of Methanol and surrogates in the field. Internal standards are added and the sample is placed on a purge and trap concentrator. The sample as purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture and concentration.

NJDEP Method OQA-QAM-025 10/97 Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g) of soil is added to a 125-ml acid cleaned and solvent rinsed capped Erlenmeyer flask. 15g anhydrous Sodium Sulfate is added to dry the sample. Surrogate standard spiking solution is then added to the flask.

Twenty-five ml of Methylene Chloride is added to the flask and it is secured on an orbital shaker table. The agitation rate is set to 400 rpm and the sample is shaken for 30 minutes. The flask is removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25-ml of Methylene Chloride is added to the flask and shaken for an additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1-ml autosampler vial.

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for Petroleum Hydrocarbons covering a range of C8-C42, including Pristane and Phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak. The final concentration of Total Petroleum Hydrocarbons is calculated using percent moisture, sample weight and concentration.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		Indicate Yes, No, N/A
1.	Chromatograms labeled/Compounds identified	
	(Field samples and method blanks)	yes
2.	Retention times for chromatograms provided	<u>yes</u>
3.	GC/MS Tune Specifications	
	a. BFB Meet Criteriab. DFTPP Meet Criteria	yes
	o. Di III Wood Chicila	_'/\ <u>/</u> H
4.	GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series	25"
		100
5.	GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of	
	sample analysis for 600 series and 12 hours for 8000 series	400
6.	GC/MS Calibration requirements	ι
	a. Calibration Check Compounds Meet Criteria	<u>yes</u>
	b. System Performance Check Compounds Meet Criteria	-yas
7.	Blank Contamination – If yes, List compounds and concentrations in each blank:	NO
	a. VOA Fraction	
	b. B/N Fraction NF	
	c. Acid Fraction NA	
8.	Surrogate Recoveries Meet Criteria	YES
	If not met, list those compounds and their recoveries, which fall outside the acceptable range:	· ·
	a. VOA Fraction	
	b. B/N Fraction NA	
	c. Acid Fraction NIA	
	If not met, were the calculations checked and the results qualified as "estimated"?	
).	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria	NO
	(If not met, list those compounds and their recoveries, which fall outside the acceptable range)	
	a. VOA Fraction 11-DCC RPD 2702	
	b. B/N Fraction NA	
	c. Acid Fraction J.J.	

CONFORMANCE/ NONCONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

			Indicate Yes, No, N/A
10.		Area/Retention Time Shift Meet Criteria ose compounds, which fall outside the acceptable range)	yes
	a,	VOA Fraction	
	ь.	B/N Fraction UA	
	c.	Acid Fraction NA	
11.	Extraction Holdin	ng Time Met	_M
	If not met, list the	number of days exceeded for each sample:	
12.	Analysis Holding	Time Met	yez_
	If not met, list the	number of days exceeded for each sample:	1
Add	itional Comments:		
Labo	oratory Manager:	Date: 5-2-04	

TPHC CONFORMANCE/NON-CONFORMANCE SUMMARY REPORT

		Indicate Yes, No, N/A
1.	Method Detection Limits Provided	<u> </u>
2.	Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank	-NO-
3.	Matrix Spike Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	yes
4.	Duplicate Results Summary Meet Criteria	yes_
5.	IR Spectra submitted for standards, blanks and samples	NA_
5.	Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted	195
7.	Analysis holding time met (If not met, list number of days exceeded for each sample)	yes
Addit	ional comments:	
_abor	atory Manager: Date: 8-7	-04

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 40548

Site: Bldg. 287

Date Hold Time Date Sampled 07/22/04 NA Receipt/Refrigeration 07/22/04 NA Extractions 1. TPHC 14 days 07/23/04 Analyses Volatile Organics
 TPHC 14 days 07/28/04 07/26/04 40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEP CERTIFICATION # 13461

Definition of Qualifiers

- U: The compound was analyzed for but not detected.
- B: Indicates that the compound was found in the associated method blank as well as in the sample.
- J: Indicates an estimated value. This flag is used:
 - (1) When the mass spec and retention time data indicate the presence of a compound however the result is less than the MDL but greater than zero.
 - (2) When estimating the concentration of a tentatively identified compound (TIC), where a 1:1 response is assumed.
- D: This flag is used to identify all compounds (target or TIC) that required a dilution.
- E: Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.
- N: This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

MB 28July04

Lab Name: **FMETL** NJDEP#: 13461 Project: 04-39601 Case No.: 40548 Location: B.287 SDG No.: UST Lab Sample ID: MB 28July04 Matrix: (soil/water) SOIL Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB017181.D Level: (low/med) MED Date Received: 7/22/2004 % Moisture: not dec. 0 Date Analyzed: 7/28/2004 GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein		700	U
107131	Acrylonitrile		700	U
75650	tert-Butyl alcoho		1300	U
1634044	Methyl-tert-Butyl	ether	300	U
108203	Di-isopropyl ethe	er	200	Ų
75718	Dichlorodifluoror	methane	400	U
74-87-3	Chloromethane		100	U
75-01-4	Vinyl Chloride		300	U
74-83-9	Bromomethane		200	U
75-00-3	Chloroethane		300	U
75-69-4	Trichlorofluorom	ethane	200	U
75-35-4	1,1-Dichloroethe	ne	100	U
67-64-1	Acetone		200	U
75-15-0	Carbon Disulfide		100	U
75-09-2	Methylene Chlori	ide	200	Ū
156-60-5	trans-1,2-Dichlor	oethene	200	U
75-34-3	1,1-Dichloroetha	ne	100	U
108-05-4	Vinyl Acetate		300	U
78-93-3	2-Butanone		300	U
156-59-2	cis-1,2-Dichloroe	thene	100	U
67-66-3	Chloroform		100	J
71-55-6	1,1,1-Trichloroet	hane	100	U
56-23-5	Carbon Tetrachlo	oride	200	U
71-43-2	Benzene		100	U
107-06-2	1,2-Dichloroetha	ne	200	U
79-01-6	Trichloroethene		100	U
78-87-5	1,2-Dichloroprop	ane	100	U
75-27-4	Bromodichlorom	ethane	100	U
110-75-8	2-Chloroethyl vin	yl ether	200	U
10061-01-5	cis-1,3-Dichlorop		100	U
108-10-1	4-Methyl-2-Penta	inone	200	U
108-88-3	Toluene		100	U
10061-02-6	trans-1,3-Dichlor	opropene	200	U
79-00-5	1,1,2-Trichloroeth		200	U
127-18-4	Tetrachloroethen	е	100	U
591-78-6	2-Hexanone		200	U
124-48-1	Dibromochlorome	ethane	200	Ū
108-90-7	Chlorobenzene		100	U
100-41-4	Ethylbenzene		200	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

MB 28July04

Lab Name: **FMETL** NJDEP#: 13461 Project: 04-39601 Case No.: 40548 Location: B.287 SDG No.: UST SOIL Matrix: (soil/water) Lab Sample ID: MB 28July04 Sample wt/vol: 10.0 (g/ml) G Lab File ID: VB017181.D Level: (low/med) MED Date Received: 7/22/2004 Date Analyzed: 7/28/2004 % Moisture: not dec. 0 GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG		Q
1330-20-7	m+p-Xylenes			300	Ų
95-47-6	o-Xylene			200	Ū
100-42-5	Styrene			200	U
75-25-2	Bromoform	Bromoform			
79-34-5	1,1,2,2-Tetrachlor	1,1,2,2-Tetrachloroethane			
541-73-1	541-73-1 1,3-Dichlorobenzene				U
106-46-7	1,4-Dichlorobenze	ene		300	U
95-50-1	1,2-Dichlorobenze	ne	-,	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

ID:	D	EL	FI
ID	D	EL	FI

Lab Name:	FMETL			NJDEP#	<i>‡</i> : 13461		MB 28Ju	ly04
Project:	04-3960)1	Case No.: 4054	8 Locat	ion: B.287	' SD	G No.: UST	
Matrix: (soil/v	water)	SOIL		L	ab Sampl	ə ID: <u>İ</u>	MB 28July04	<u> </u>
Sample wt/vo	ol:	10.0	(g/ml) <u>G</u>		ab File ID	: \	/B017181.D	
Level: (low/n	ned)	MED		[Date Recei	ved: 7	7/22/2004	
% Moisture: ı	not dec.	0		[Date Analy	zed: 7	7/28/2004	
GC Column:	RTX50	02. ID:	0.25 (mm)	[Dilution Fac	ctor: _1	1.0	******
Soil Extract V	/olume:	25000	(uL)	9	Soil Aliquot	Volum	ne: <u>125</u>	(uL)
Number TICs	s found:	0		CONCENTR. (ug/L or ug/K		ITS: /KG		
CAS NO		COME	OUND NAME		RT	FST	CONC	0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

287-PX3

Lab Name:	FMETL				NJDEP#:	13461		
Project:	04-396	01	Case No.:	40548	Location	n: <u>B.287</u>	SDG No.:	UST
Matrix: (soil/	water)	SOIL			Lai	Sample II	D: <u>405480</u>	3
Sample wt/v	ol:	11.4	(g/ml)	G	Lal	File ID:	VB017	183.D

Level: (low/med) MED Date Received: 7/22/2004

% Moisture: not dec. 26.7 Date Analyzed: 7/28/2004

(mm)

GC Column: RTX502. ID: 0.25

Soil Aliquot Volume: 125 Soil Extract Volume: 25000 (uL) (uL)

CONCENTRATION UNITS:

Dilution Factor: 1.0

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
107028	Acrolein	840	U
107131	Acrylonitrile	840	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	360	U
108203	Di-isopropyl ether	240	U
75718	Dichlorodifluoromethane	480	U
74-87-3	Chloromethane	120	U
75-01-4	Vinyl Chloride	360	U
74-83-9	Bromomethane	240	U
75-00-3	Chloroethane	360	U
75-69-4	Trichlorofluoromethane	240	U
75-35-4	1,1-Dichloroethene	120	U
67-64-1	Acetone	330	
75-15-0	Carbon Disulfide	120	U
75-09-2	Methylene Chloride	240	U
156-60-5	trans-1,2-Dichloroethene	240	U
75-34-3	1,1-Dichloroethane	120	U
108-05-4	Vinyl Acetate	360	U
78-93-3	2-Butanone	360	U
156-59-2	cis-1,2-Dichloroethene	120	U
67-66-3	Chloroform	120	U
71-55-6	1,1,1-Trichloroethane	120	U
56-23-5	Carbon Tetrachloride	240	U
71-43-2	Benzene	120	U
107-06-2	1,2-Dichloroethane	240	U
79-01-6	Trichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
75-27-4	Bromodichloromethane	120	U
110-75-8	2-Chloroethyl vinyl ether	240	U
10061-01-5	cis-1,3-Dichloropropene	120	U
108-10-1	4-Methyl-2-Pentanone	240	U
108-88-3	Toluene	120	U
10061-02-6	trans-1,3-Dichloropropene	240	U
79-00-5	1,1,2-Trichloroethane	240	U
127-18-4	Tetrachloroethene	120	U
591-78-6	2-Hexanone	240	U
124-48-1	Dibromochloromethane	240	U
108-90-7	Chlorobenzene	120	U
100-41-4	Ethylbenzene	240	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

 Lab Name:
 FMETL
 NJDEP#:
 13461

 Project:
 04-39601
 Case No.:
 40548
 Location:
 B.287
 SDG No.:
 UST

Matrix: (soil/water) SOIL Lab Sample ID: 4054803
Sample wt/vol: 11.4 (g/ml) G Lab File ID: VB017183.D

Level: (low/med) MED Date Received: 7/22/2004

% Moisture: not dec. 26.7 Date Analyzed: 7/28/2004

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

	CONCENTRATION UNITS:						
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG		Q		
1330-20-7	m+p-Xylenes			360	U		
95-47-6	o-Xylene			240	U		
100-42-5	Styrene			240	Ü		
75-25-2	Bromoform			240	U		
79-34-5	1,1,2,2-Tetrach	loroethane		110	J		
541-73-1	1,3-Dichlorober	rzene		360	U		
106-46-7	1,4-Dichlorober	nzene		360	U		
95-50-1	1,2-Dichlorober	nzene		360	U		

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

287-PX3

Lab Name: **FMETL** NJDEP#: 13461

Project: 04-39601 Case No.: 40548 Location: B.287 SDG No.: UST SOIL Matrix: (soil/water) Lab Sample ID: 4054803

(g/ml) G Lab File ID: Sample wt/vol: 11.4 VB017183.D

Level: (low/med) MED Date Received: 7/22/2004 % Moisture: not dec. 26.7 Date Analyzed: 7/28/2004

GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 125 (uL)

CONCENTRATION UNITS:

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

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 002847-72-5	Decane, 4-methyl-	28.78	1200	JN
2. 000095-36-3	1,2,4-Trimethylbenzene	29.36	2000	JN
3.	unknown hydrocarbon	29.52	790	J
4.	unknown hydrocarbon	30.67	860	J
5.	unknown hydrocarbon	30.87	1500	J
6. 002958-76-1	Naphthalene, decahydro-2-methyl	31.61	2500	JN
7. 017312-55-9	Decane, 3,8-dimethyl-	31.96	860	JN
8	unknown hydrocarbon	32.02	920	J
9. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	32.13	790	JN
10. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	32.24	940	JN

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VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

Trip Blank

Lab Name:	FMETL			NJDEP#: 13461	
Project:	04-3960)1	Case No.: 40548	Location: B.287 S	DG No.: UST
Matrix: (soil/v	water)	SOIL		Lab Sample ID:	4054807
Sample wt/vo	ol:	10.0	(g/ml) <u>G</u>	Lab File ID:	VB017182.D
Level: (low/n	ned)	MED		Date Received:	7/22/2004
% Moisture:	not dec.	0		Date Analyzed:	7/28/2004
GC Column:	RTX50	02. ID:	<u>0.25</u> (mm)	Dilution Factor:	1.0
Soil Extract \	/olume:	25000	(ut.)	Soil Aliquot Volu	me: 125 (ul

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q					
107028	Acrolein	700	U					
107131	Acrylonitrile	700	U					
75650	tert-Butyl alcohol	1300	U					
1634044	Methyl-tert-Butyl ether	300	U					
108203	Di-isopropyl ether	200	U					
75718	Dichlorodifluoromethane	400	U					
74-87-3	Chloromethane	100	U					
75-01-4	Vinyl Chloride	300	U					
74-83-9	Bromomethane	200	U					
75-00-3	Chloroethane	300	U					
75-69-4	Trichlorofluoromethane	200	U					
75-35-4	1,1-Dichloroethene	100	U					
67-64-1	Acetone	280	•					
75-15-0	Carbon Disulfide	100	U					
75-09-2	Methylene Chloride	200	U					
156-60-5	trans-1,2-Dichloroethene	200	U					
75-34-3	1,1-Dichloroethane	100	U					
108-05-4	Vinyl Acetate	300	U					
78-93-3	2-Butanone	300	U					
156-59-2	cis-1,2-Dichloroethene	100	Ų					
67-66-3	Chloroform	100	U					
71-55-6	1,1,1-Trichloroethane	100	U					
56-23-5	Carbon Tetrachloride	200	U					
71-43-2	Benzene	100	Ū					
107-06-2	1,2-Dichloroethane	200	U					
79-01-6	Trichloroethene	100	U					
78-87-5	1,2-Dichloropropane	100	U					
75-27-4	Bromodichloromethane	100	Ū					
110-75-8	2-Chloroethyl vinyl ether	200	U					
10061-01-5	cls-1,3-Dichloropropene	100	U					
108-10-1	4-Methyl-2-Pentanone	200	U					
108-88-3	Toluene	100	U					
10061-02-6	trans-1,3-Dichloropropene	200	U					
79-00-5	1,1,2-Trichloroethane	200	U					
127-18-4	Tetrachloroethene	100	U					
591-78-6	2-Hexanone							
124-48-1	Dibromochloromethane							
108-90-7	Chlorobenzene							
100-41-4	Ethylbenzene	200	U					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID:

Trip Blank

Lab Name:	FMETL			_ NJDEP#: _13461	The Stank
Project:	04-396	01	Case No.: 40548	Location: B.287 S	DG No.: UST
Matrix: (soil/	water)	SOIL	<u>.</u>	Lab Sample ID:	4054807
Sample wt/vol: 10.0		10.0	(g/ml) <u>G</u>	Lab File ID:	VB017182.D
Level: (low/r	ned)	MED		Date Received:	7/22/2004
% Moisture:	not dec.	0		Date Analyzed:	7/28/2004
GC Column:	RTX5	02. ID:	0.25 (mm)	Dilution Factor:	1.0
Soil Extract \	Volume:	25000	(uL)	Soil Aliquot Volu	me: 125 (uL

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/K	g) <u>UG/KG</u>	Q
1330-20-7	m+p-Xylenes	300	U
95-47-6	o-Xylene	200	U
100-42-5	Styrene	200	U
75-25-2	Bromoform	200	Ù
79-34-5	1,1,2,2-Tetrachloroethane	200	U
541-73-1	1,3-Dichlorobenzene	300	U
106-46-7	1,4-Dichlorobenzene	300	U
95-50-1	1,2-Dichlorobenzene	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

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Lab Name:	FMETL			NJDEP#: 13461					
Project:	04-3960)1	Case No.: 4054	18 Loca	tion: B.287	G No.: UST			
Matrix: (soil/\	water)	SOIL			Lab Sample	D: 4	4054807		
Sample wt/vo	ol:	10.0	(g/ml) <u>G</u>		Lab File ID:	_	VB017182.D		
Level: (low/r	ned)	MED			Date Receiv	/ed: <u>]</u>	7/22/2004		
% Moisture:	Moisture: not dec. 0 Date Analyzed: 7/						7/28/2004		
GC Column: RTX502. ID: 0.25 (mm) Dilution Facto						tor: _	1.0		
Soil Extract \	√olume:	25000	(uL)		Soil Aliquot	Volum	ne: <u>125</u>	(uL)	
Number TICs	s found:	0		CONCENTF (ug/L or ug/l					
CAS NO.		COMF	POUND NAME		RT	 EST	r. CONC.	Q	

TPHC

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

Client:

U.S. Army

Project #:

40548

DPW. SELFM-PW-EV

Location:

BI.287

Bldg. 173

Ft. Monmouth, NJ 07703

UST Reg. #:

Analysis:

OQA-QAM-025

Date Received:

22-Jul-04

Matrix:

Soil

Date Extracted:

23-Jul-04

Inst. ID. :

GC TPHC INST. #1

Extraction Method:

Shake

Column Type :

RTX-5, 0.32mm ID, 30M

Analysis Complete :

26-Jul-04 B.Patel

Injection Volume:

1uL

Analyst:

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
4054801	287-PX1	1.00	15.08	78.19	192	215.58
4054802	287-PX2	1.00	15.01	74.90	201	580.63
4054803	287-PX3	1.00	15.45	73.30	200	2458.35
4054804	287-PX4	1.00	15.00	79.51	190	ND
4054805	287-PX5	1.00	15.18	72.66	205	ND
4054806	287-PX6	1.00	15.35	74.31	199	ND
METHOD BLANK	MB-072304-01	1.00	15.00	100.00	151	ND

ND = Not Detected

MDL = Method Detection Limit

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

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

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	
2.	Table of Contents submitted	<u> </u>
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	<u> </u>
4.	Document paginated and legible	
5.	Chain of Custody submitted	
6.	Samples submitted to lab within 48 hours of sample collection	<u>_v</u>
7.	Methodology Summary submitted	
8.	Laboratory Chronicle and Holding Time Check submitted	
9. ·	Results submitted on a dry weight basis	
	Method Detection Limits submitted Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	
Date	Laboratory Manager or Environmental Consultant's Signature	

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Authentication Statement

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

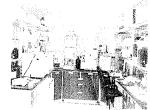
Daniel K. Wright Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL

TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732)532-6224 FAX: (732)532-6263 WET-CHEM - METALS - ORGANICS - FIELD SAMPLING



ANALYTICAL DATA REPORT FOR Directorate of Public Works Fort Monmouth, NJ 07703

PROJECT: DERA/Long Term Monitoring

SAMPLE LOCATION AND IDENTIFICATION

SITE: 287

LABORATORY	MONITOR	NJDEP WELL ID#	SAMPLE
ID #	WELL#	·	DATE
9013003	0287MW01	29-30964	03/27/09

NJDEP Laboratory Certification # 13461

N 11024 (W) (NO) SIMP DACQUELINE Hamer/Date QA/QC Supervisor

METHODOLOGY SUMMARY

PARAMETER	REFERENCE
TARGET ANALYTE LIST METALS	Standard Methods, 18th ed.
Aluminum	3120B
Antimony	3120B
Arsenic	3120B
Barium	3120B
Beryllium	3120B
Cadmium	3120B
Calcium	3120B
Chromium	3120B .
Cobalt	3120B
Copper	3120B
Iron	3120B
Lead	3120B
Magnesium	3120B
Manganese	3120B
Mercury	3112B
Nickel	3120B
Potassium	3120B
Selenium	3120B
Silver	3120B
Sodium	3120B
Thallium	3120B
Vanadium	3120B
Zinc	3120B

PARAMETER	REFERENCE
TARGET COMPOUND LIST	Federal Register 40 CFR Part
ORGANICS	136
	Appendix A
Base/Neutral and Acid	625
Extractables by GC/MS	
Purgeable Organics by	624
GC/MS	
Pesticide and PCB by GC	608

SAMPLING



Fort Monmouth Environmental Testing Laboratory

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

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

Chain of Custody Record

NJDEP Certification #13461

Customer: JOE		Project No:							Comments:				
Phone #: 732-9	532-6273	LOCATION: 25 QUARTER MONITOR WELL SAMPUNG				0	A73V+25						
()DERA ()OMA (SAMPL	MG-	+ +	7						
Samplers Name / Cor	mpany: WALTER FU	NK/T	15	Sample	#	VOAHS	1/3	90					10340
LIMS/Work Order #	Sample Location	Date	Time	Туре	bottles		/)					Remarks / Preservation Method
99/130.01	<u> </u>	03-27-09		AQ	2	\times							
,02	287 FIELD TSLANK	03-27-09	16:00	AQ	4	\times	\leq	\geq					
Q 103	287 MW#01	03-27-09	16:20	AQ	4	X	\times	\geq					
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Relinquished by (signat	ture): Date/Time:	Received by	(signature):		Relin	linquished by (signature): Date/Time: Received by (signature):			(signature):				
. 8)Reduced, (Standard, ()Scr andard 3 wks, ()Rush _Wk., (

print legibly

US ARMY FORT MONMOUTH MONITOR WELL SAMPLING

Sampling Conducted in LOCATION: 287 Accordance with TVS SOP MW #:01 NJDEP ID # 29-30964 SAM-0205 **NJDEP CERT. # 13461** SAMPLING CONTRACTOR: TECOM-VINNELL SERVICES SAMPLER: WALTER FUNK DATE: 03/27/09 WEATHER: Sunny and cool. TIDE: N/A **Initial Readings:** Elevation of Casing Survey Mark: 2.73 ft Depth of Well: 14.55 ft Height of Water in Well: 11.82 ft PID/FID Reading: 0.00 ppm Gallons of Water to be Purged: 23 Gal. Formula: ht.of water x (0.163 for 2" well or 0.65 for 4" well) x = 23.04Purge Method: Peristaltic Pump/Other (Specify) Purge Rate: Not to Exceed Well Draw Down of 0.5' 23/100 Gal/Min. Purge Data: Start Time of Purging: 14:36 End Time of Purging: 16:16 Initial Value **Pre-Sample Post-Sample** 7.09 su 7.07 su pH: 6.92 su Temperature: 10.62 (°C) 9.86 (°C) 9.87 (°C) Specific Conductivity: 2501 us/cm 3508 us/cm 2534 us/cm ORP: 91 mv 94 mv 51 mv DO: 4.02 mg/L 5.08 mg/L 10.41 mg/L Depth to Water Post Purge: 3.00 Depth to Water Post Sampling: 3.12 Sampling Start Time: 14:20 Sampling End Time: 14:26 Comments:

Confinents.

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEP CERTIFICATION # 13461

Definition of Qualifiers

- U: The compound was analyzed for but not detected.
- B: Indicates that the compound was found in the associated method blank as well as in the sample.
- J: Indicates an estimated value. This flag is used:
 - (1) When the mass spec and retention time data indicate the presence of a compound however the result is less than the MDL but greater than zero.
 - (2) When estimating the concentration of a tentatively identified compound (TIC), where a 1:1 response is assumed.
- D: This flag is used to identify all compounds (target or TIC) that required a dilution.
- E: Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.
- N: This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

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

Data File

VA3300,D

Sample Name

MB 4/9/09

Operator Date Acquired ROBERTS 9 Apr 2009 12:02 pm Field ID

METHOD 624 4/9/09

Sample Multiplier 1

01.611	Comme A Nome	m m	70	D 14		Regulatory Level (ug/l)		DY	0 115
CAS#	Compound Name	R.T.	Response	Result	· · · · · · · · · · · · · · · · · · ·		MDL	RL	Qualifiers
107028	Acrolein		ļ		detected	5	2.67 ug/L	10.00 ug/L	
107131	Acrylonitrile				detected	2	2.07 ug/L	10.00 ug/L	
75650	tert-Butyl alcohol				detected	100	3.33 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether				detected	70	0.15 ug/L	2.00 ug/L	
108203	Di-isopropyl ether	. ,		 	detected	20000	0,28 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane				detected	1000	0.21 ug/L	2.00 ug/L	
74-87-3	Chloromethane				detected	nle	0.31 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride				detected	11	0.29 ug/L	2.00 ug/L	
74-83-9	Bromomethane	P			detected	10	0.35 ug/L	2.00 ug/L	
75-00-3	Chloroethane			not	detected	nle	0.22 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane				detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene			not	detected	1 1	0.29 ug/L	2.00 ug/L	
67-64-1	Acetone			not	detected	6000	0.16 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide			not	detected	700	0.22 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride			not	detected	3	0.23 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			not	detected	100	0.18 ug/L	2.00 ug/L	
75-35-3	1,1-Dichloroethane			not	detected	50	0.21 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate			not	detected	7000	0.17 ug/L	2.00 ug/L	
78-93-3	2-Butanone			not	detected	300	0.18 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not	detected	70	0.23 ug/L	2.00 ug/L	
67-66-3	Chloroform				detected	70	0.18 ug/L	2.00 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.22 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride				detected	1	0.20 ug/L	2.00 ug/L	
71-43-2	Benzene				detected	1	0.19 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.22 ug/L	2.00 ug/L	
79-01-6	Trichloroethene				detected	1	0.27 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane				detected	i	0.16 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane				detected	1	0.12 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether		***************************************		detected	nle	0.19 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene				detected	1	0.15 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.20 ug/L	2.00 ug/L	
108-88-3	Toluene				detected	1000	0.15 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1	0.19 ug/L	2.00 ug/L	
79-00-5	1.1.2-Trichloroethane				detected	3	0.20 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene				detected	1	0.18 ug/L	2.00 ug/L	
591-78-6	2-Hexanone				detected	nle	0.09 ug/L	2.00 ug/L	
126-48-1	Dibromochloromethane				detected	nie 1	0.19 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene				detected	50	0.16 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene				detected	700	0.18 ug/L	2.00 ug/L	
630-20-6	1,1,1,2-tetrachloroethane				detected	·	0.18 ug/L	2.00 ug/L	
						<u> </u>	0.18 ppb		
1330-20-7 1330-20-7	m+p-Xylenes				detected detected	nle	0.31 ug/L 0.13 ug/L	4.00 ug/L 2.00 ug/L	
	o-Xylene					nle	0.13 ug/L 0.17 ug/L		
100-42-5	Styrene				detected	100		2.00 ug/L	
75-25-2	Bromoform				detected	4	0.30 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected	1	0.22 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene				detected	600	0.17 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene				detected	75	0.18 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.18 ug/L	2.00 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

		1 = 11 17 (1	.veel ibeivi	ii ilb oomi	001100			D 410100	.
Lab Name:	FMETL		ATTE ANT T	Contrac	ot:	,	IVI	B 4/9/09	,
Lab Code:	13461	Ca	se No.: MW	SAS	No.:	SE	DG No.:	90130	
Matrix: (soil/w	vater)	WATER	_		Lab Sampl	e ID:	MB 4/9/	09	
Sample wt/vo	ol:	5.0	(g/ml) ML		Lab File ID	• •	VA3300	.D	
Level: (low/m	ned)	LOW			Date Recei	ved:	3/27/200)9	
% Moisture: r	not dec.				Date Analy	zed:	4/9/2009)	
GC Column:	RTX-V	<u>'M</u> ID: <u>0.</u>	25 (mm)		Dilution Fac	ctor:	1.0	***************************************	
Soil Extract V	olume:		(uL)	:	Soil Aliquot	Volun	ne:	· · · · · · · · · · · · · · · · · · ·	(uL)
				CONCENTR		ITS:			
Number TICs	found:	0		(ug/L or ug/K	(g) UG	/L			
CAS NO.		COMPOL	JND NAME	100 000 000 000 000 000 000 000 000 000	RT	ES	T. CONC	· .	Q

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

Data File

VA3318.D ROBERTS

8.D Sample 1

Sample Name Field ID MB #2 4/09/09 METHOD 624 4/10/09

Operator Date Acquired

10 Apr 2009 10:21 am

Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein		Кезропзе		detected	5	2.67 ug/L	10.00 ug/L	Qualifiers
107131	Acrylonitrile				detected	2	2.07 ug/L	10.00 ug/L	
75650	tert-Butyl alcohol				detected	100	3.33 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether				detected	70	0.15 ug/L	2.00 ug/L	· · · · · · · · · · · · · · · · · · ·
108203	Di-isopropyl ether				detected	20000	0.28 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane				detected	1000	0.28 ug/L	2.00 ug/L	
74-87-3	Chloromethane				detected		0.21 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride				detected	nle	0.31 ug/L 0.29 ug/L	2.00 ug/L	
74-83-9	Bromomethane		······································		detected	10	0.25 ug/L	2.00 ug/L	
75-00-3					detected		0.22 ug/L	2.00 ug/L 2.00 ug/L	
75-69-4	Chloroethane Trichloroflyoromethans				detected	nle	0.23 ug/L	2.00 ug/L	
	Trichlorofluoromethane				detected	2000	0.29 ug/L	2.00 ug/L 2.00 ug/L	
75-35-4	1,1-Dichloroethene				detected	1 (000	0.29 ug/L 0.16 ug/L	2.00 ug/L 2.00 ug/L	
67-64-1 75-15-0	Acetone Carbon Disulfide				detected	6000	0.10 ug/L 0.22 ug/L	2.00 ug/L 2.00 ug/L	
J					detected	700	0.23 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride				detected	3	0.23 ug/L 0.18 ug/L	2.00 ug/L 2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene					100		2.00 ug/L 2.00 ug/L	
75-35-3	1,1-Dichloroethane				detected	50	0.21 ug/L	2.00 ug/L 2.00 ug/L	
108-05-4	Vinyl Acetate				detected detected	7000	0.17 ug/L 0.18 ug/L	2.00 ug/L 2.00 ug/L	
78-93-3	2-Butanone					300	0.18 ug/L 0.23 ug/L		*****
156-59-2	cis-1,2-Dichloroethene				detected	70	0.23 ug/L 0.18 ug/L	2.00 ug/L	
67-66-3	Chloroform				detected	70		2.00 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.22 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride				detected		0.20 ug/L	2.00 ug/L	
71-43-2	Benzene				detected	1	0.19 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.22 ug/L 0.27 ug/L	2.00 ug/L	
79-01-6	Trichloroethene			~	detected			2.00 ug/L	
78-87-5	1,2-Dichloropropane				detected	 	0.16 ug/L 0.12 ug/L	2.00 ug/L 2.00 ug/L	
75-27-4	Bromodichloromethane				detected	<u> </u>	0.12 ug/L 0.19 ug/L	2.00 ug/L 2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.19 ug/L 0.15 ug/L		
10061-01-5	cis-1,3-Dichloropropene				detected	ļ <u>-</u>	0.15 ug/L 0.20 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.20 ug/L 0.15 ug/L	2.00 ug/L 2.00 ug/L	
108-88-3	Toluene				detected detected	1000	0.19 ug/L	2.00 ug/L 2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1	0.19 ug/L 0.20 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.20 ug/L 0.18 ug/L	2.00 ug/L 2.00 ug/L	
127-18-4	Tetrachloroethene				detected	 	0.18 ug/L 0.09 ug/L	2.00 ug/L 2.00 ug/L	
591-78-6 126-48-1	2-Hexanone				detected	nle	0.19 ug/L	2.00 ug/L 2.00 ug/L	
108-90-7	Dibromochloromethane				detected	1 1	0.19 ug/L 0.16 ug/L	2.00 ug/L	
	Chlorobenzene					50	0.18 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene				detected detected	700	0.18 ug/L 0.18 ppb	2.00 ug/L 2.00 ppb	
630-20-6	1,1,1,2-tetrachloroethane					1 .	0.18 pp0 0.31 ug/L	4.00 ug/L	
1330-20-7	m+p-Xylenes				detected	nle	0.31 ug/L 0.13 ug/L	2.00 ug/L 2.00 ug/L	
1330-20-7	o-Xylene				letected letected	nle	0.13 ug/L 0.17 ug/L	2.00 ug/L 2.00 ug/L	
100-42-5	Styrene				letected letected	100	0.17 ug/L 0.30 ug/L	2.00 ug/L	
75-25-2	Bromoform					4	0.30 ug/L 0.22 ug/L	2.00 ug/L 2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				letected letected	1 1	0.22 ug/L 0.17 ug/L	2.00 ug/L 2.00 ug/L	
541-73-1	1,3-Dichlorobenzene				letected	600			
106-46-7	1,4-Dichlorobenzene				letected	75	0.18 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene		L	notjo	letected	600	0.18 ug/L	2.00 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution PQL = Practical Quantitation Limit MDL = Method Detection Limit NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB #2 4/9/09 Lab Name: FMETL Contract: SAS No.: SDG No.: 90130 Lab Code: 13461 Case No.: MW Lab Sample ID: MB #2 4/09/09 Matrix: (soil/water) WATER 5.0 (g/ml) ML Sample wt/vol: Lab File ID: VA3318.D Level: (low/med) LOW Date Received: 3/27/2009 % Moisture: not dec. Date Analyzed: 4/10/2009 GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0 Soil Aliquot Volume: Soil Extract Volume: (uL) (uL) **CONCENTRATION UNITS:** (ug/L or ug/Kg) UG/L Number TICs found: 0 CAS NO. COMPOUND NAME RT EST. CONC. Q

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

Data File

VA3313,D

Sample Name

9013001

Operator Date Acquired ROBERTS 9 Apr 2009 7:09 pm

287 TRIP BLANK Field ID Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Resul	t	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			no	t detected	5	2.67 ug/L	10.00 ug/L	
107131	Acrylonitrile			no	t detected	2	2.07 ug/L	10.00 ug/L	
75650	tert-Butyl alcohol			no	detected	100	3.33 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether			no	t detected	70	0.15 ug/L	2.00 ug/L	
108203	Di-isopropyl ether			no	detected	20000	0.28 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane			no	detected	1000	0.21 ug/L	2.00 ug/L	
74-87-3	Chloromethane				detected	nle	0.31 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride			no		1	0.29 ug/L	2.00 ug/L	
74-83-9	Bromomethane				detected	10	0.35 ug/L	2.00 ug/L	
75-00-3	Chloroethane				detected	nle	0.22 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane				detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1.1-Dichloroethene				detected	1	0.29 ug/L	2.00 ug/L	
67-64-1	Acetone			not		6000	0.16 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide			not		700	0.22 ug/L	2.00 ug/L	,
75-09-2	Methylene Chloride				detected	3	0.23 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene				detected	100	0.23 ug/L	2.00 ug/L	
75-35-3	1.1-Dichloroethane				detected	50	0.18 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate				detected	7000	0.21 ug/L 0.17 ug/L	2.00 ug/L	
78-93-3	2-Butanone				detected		0.17 tig/L 0.18 ug/L	2.00 ug/L	
156-59-2			· · · · · · · · · · · · · · · · · · ·		detected	300	0.18 ug/L 0.23 ug/L	2.00 ug/L 2.00 ug/L	
	cis-1,2-Dichloroethene				detected	70	0.23 ug/L 0.18 ug/L	2.00 ug/L	
67-66-3	Chloroform					70	0.18 ug/L 0.22 ug/L		
75-55-6	1,1,1-Trichloroethane				detected	30	0.22 ug/L 0.20 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride				detected	1	0.20 ug/L 0.19 ug/L	2.00 ug/L	
71-43-2	Benzene				detected	1 1	0.19 ug/L 0.22 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.22 ug/L 0.27 ug/L	2.00 ug/L	
79-01-6	Trichloroethene				detected	1		2.00 ug/L	
78-87-5	1,2-Dichloropropane				detected	1	0.16 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane			not		I I	0.12 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.19 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene				detected	1	0.15 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.20 ug/L	2.00 ug/L	
108-88-3	Toluene					1000	0.15 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1	0.19 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.20 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene				detected	1	0.18 ug/L	2.00 ug/L	
591-78-6	2-Hexanone			~	detected	nle	0.09 ug/L	2.00 ug/L	
126-48-1	Dibromochloromethane				detected	1	0.19 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene				detected	50	0.16 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene				detected	700	0.18 ug/L	2.00 ug/L	
630-20-6	1,1,1,2-tetrachloroethane				detected	1	0.18 ppb	2.00 ppb	
1330-20-7	m+p-Xylenes				detected	nle	0.31 ug/L	4.00 ug/L	
1330-20-7	o-Xylene				detected	nle	0.13 ug/L	2.00 ug/L	
100-42-5	Styrene				detected	100	0.17 ug/L	2.00 ug/L	
75-25-2	Bromoform				detected	4	0.30 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected	1	0.22 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene			not	detected	600	0.17 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene			not	detected	75	0.18 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.18 ug/L	2.00 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution PQL = Practical Quantitation Limit MDL = Method Detection Limit

NLE = No Limit Established R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA	SAM	PLE	NO.
287	TRIP	BLA	NK

Lab Name:	FMETL	· · · · · · · · · · · · · · · · · · ·			Contract:					
Lab Code:	13461	C	ase No.: [ИVV	SAS No	D.:	S	DG No.:	90130	
Matrix: (soil/v	vater)	WATER			La	b Sampl	e ID:	9013001	1	
Sample wt/vo	ol:	5.0	(g/ml)	ML	La	b File ID	:	VA3313	.D	_
Level: (low/n	ned)	LOW	~ 		Da	ite Rece	ived:	3/27/200)9	
% Moisture: i	not dec.				Da	ite Analy	zed:	4/9/2009)	
GC Column:	RTX-V	<u>/M</u> ID: (0.25 (mr	n)	Dil	ution Fa	ctor:	1.0		
Soil Extract V	/olume:	Provide a service of the second	(uL)		So	il Aliquot	: Volu	me:		(uL)
				СО	NCENTRAT	TION UN	IITS:			
Number TICs	found:	0		(ug	'L or ug/Kg)	UG	6/L			
CAS NO.		COMPO	UND NAM	E		RT	ES	T. CONC) .	Q

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

Data File Operator

Date Acquired

VA3314.D ROBERTS

9 Apr 2009 7:41 pm

Sample Name

9013002

Field ID

287 FIELD BLANK

Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Resul	ť	Regulatory Level (ug/l)*	MDL	RL	Oualifiers
107028	Acrolein			no	detected	5	2.67 ug/L	10.00 ug/L	
107131	Acrylonitrile				detected	2	2.07 ug/L	10.00 ug/L	
75650	tert-Butyl alcohol				detected	100	3.33 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether				detected	70	0.15 ug/L	2.00 ug/L	
108203	Di-isopropyl ether				detected	20000	0.28 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane				detected	1000	0.21 ug/L	2.00 ug/L	
74-87-3	Chloromethane				detected	nle	0.31 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride				detected	1	0.29 ug/L	2.00 ug/L	
74-83-9	Bromomethane				detected	10	0.35 ug/L	2.00 ug/L	
75-00-3	Chloroethane				detected	nle	0,22 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane				detected	2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene				detected	1	0.29 ug/L	2.00 ug/L	
67-64-1	Acetone				detected	6000	0.16 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide				detected	700	0.22 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride				detected	3	0.23 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			~~~~~	detected	100	0.18 ug/L	2.00 ug/L	
75-35-3	1,1-Dichloroethane				detected	50	0,21 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate				detected	7000	0.17 ug/L	2.00 ug/L	
78-93-3	2-Butanone				detected	300	0.18 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene				detected	70	0.23 ug/L	2.00 ug/L	
67-66-3	Chloroform				detected	70	0.18 ug/L	2.00 ug/L	
75-55-6	1.1.1-Trichloroethane				detected	30	0.22 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride				detected	1	0.20 ug/L	2.00 ug/L	
71-43-2	Benzene				detected		0.19 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.22 ug/L	2.00 ug/L	······································
79-01-6	Trichloroethene				detected	1 1	0.27 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane				detected	i	0.16 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane				detected	1	0.12 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.19 ug/L	2.00 ug/L	****
10061-01-5	cis-1,3-Dichloropropene				detected	1	0.15 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone					nle	0.20 ug/L	2.00 ug/L	
108-88-3	Toluene			not	detected	1000	0.15 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not	detected	1	0.19 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.20 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene				detected	1	0.18 ug/L	2.00 ug/L	
591-78-6	2-Hexanone				detected	nle	0.09 ug/L	2.00 ug/L	······································
126-48-1	Dibromochloromethane				detected	1 1	0.19 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene				detected	50	0.16 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene				detected	700	0.18 ug/L	2.00 ug/L	
630-20-6	1,1,1,2-tetrachloroethane				detected		0.18 ppb	2.00 ppb	
1330-20-7	m+p-Xylenes				detected	nle	0.31 ug/L	4.00 ug/L	
1330-20-7	o-Xylene				detected	nie	0.13 ug/L	2.00 ug/L	
100-42-5	Styrene				detected	100	0.17 ug/L	2.00 ug/L	
75-25-2	Bromoform				detected	4	0.30 ug/L	2.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected	1	0.22 ug/L	2.00 ug/L	
541-73-1	1,3-Dichlorobenzene				detected	600	0.17 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene				detected	75	0.18 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene				detected	600	0.18 ug/L	2.00 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPI	_E NC
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287 FIELD BLANK Lab Name: FMETL Contract: Case No.: MW Lab Code: 13461 SAS No.: SDG No.: 90130 Matrix: (soil/water) WATER Lab Sample ID: 9013002 5.0 (g/ml) ML Sample wt/vol: Lab File ID: VA3314.D Date Received: 3/27/2009 Level: (low/med) LOW % Moisture: not dec. Date Analyzed: 4/9/2009 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: CAS NO. COMPOUND NAME RT EST. CONC. Q

8.22

1. 000110-54-3 Hexane

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

Data File Operator VA3319.D

ROBERTS

Sample Name

Field ID

9013003 287 MW#01

Date Acquired

10 Apr 2009 10:54 am

Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	t	Regulatory Level (ug/l)	MDL	RL	Qualifiers
107028	Acrolein			not	detected	5	2.67 ug/L	10.00 ug/L	
107131	Acrylonitrile			not	detected	2	2.07 ug/L	10.00 ug/L	
75650	tert-Butyl alcohol			not	detected	100	3.33 ug/L	10.00 ug/L	
1634044	Methyl-tert-Butyl ether			not	detected	70	0.15 ug/L	2.00 ug/L	
108203	Di-isopropyl ether			not	detected	20000	0.28 ug/L	2.00 ug/L	
75718	Dichlorodifluoromethane			not	detected	1000	0.21 ug/L	2.00 ug/L	
74-87-3	Chloromethane			not	detected	nle	0.31 ug/L	2.00 ug/L	
75-01-4	Vinyl Chloride			not	detected	1	0.29 ug/L	2.00 ug/L	
74-83-9	Bromomethane		<u> </u>	not	detected	10	0.35 ug/L	2.00 ug/L	
75-00-3	Chloroethane			not	detected	nle	0.22 ug/L	2.00 ug/L	
75-69-4	Trichlorofluoromethane		<u></u>	not		2000	0.23 ug/L	2.00 ug/L	
75-35-4	1,1-Dichloroethene			not		1	0.29 ug/L	2.00 ug/L	
67-64-1	Acetone		· · · · · · · · · · · · · · · · · · ·		detected	6000	0.16 ug/L	2.00 ug/L	
75-15-0	Carbon Disulfide				detected	700	0.22 ug/L	2.00 ug/L	
75-09-2	Methylene Chloride				detected	3	0.23 ug/L	2.00 ug/L	
156-60-5	trans-1,2-Dichloroethene			***************************************	detected	100	0.18 ug/L	2.00 ug/L	
75-35-3	1,1-Dichloroethane				detected	50	0.21 ug/L	2.00 ug/L	
108-05-4	Vinyl Acetate				detected	7000	0.17 ug/L	2.00 ug/L	
78-93-3	2-Butanone				detected	300	0.18 ug/L	2.00 ug/L	
156-59-2	cis-1,2-Dichloroethene				detected	70	0.23 ug/L	2.00 ug/L	
67-66-3	Chloroform			· · · · · · · · · · · · · · · · · · ·	detected	70	0.18 ug/L	2.00 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.22 ug/L	2.00 ug/L	
56-23-5	Carbon Tetrachloride				detected	1	0.20 ug/L	2.00 ug/L	
71-43-2	Benzene				detected	1	0.19 ug/L	2.00 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.22 ug/L	2.00 ug/L	
79-01-6	Trichloroethene				detected	1	0.27 ug/L	2.00 ug/L	
78-87-5	1,2-Dichloropropane				detected	1	0.16 ug/L	2.00 ug/L	
75-27-4	Bromodichloromethane				detected	1	0.10 ug/L	2.00 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.12 ug/L	2.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene				detected	1	0.15 ug/L	2.00 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.20 ug/L	2.00 ug/L	
108-88-3	Toluene Toluene				detected	1000	0.15 ug/L	2.00 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1	0.19 ug/L	2.00 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.20 ug/L	2.00 ug/L	
127-18-4	Tetrachloroethene				detected	1 1	0.18 ug/L	2.00 ug/L	
591-78-6	2-Hexanone				detected	nle	0.09 ug/L	2.00 ug/L	
126-48-1	Dibromochloromethane				detected	l l	0.19 ug/L	2.00 ug/L	
108-90-7	Chlorobenzene				detected	50	0.19 ug/L	2.00 ug/L	
100-41-4	Ethylbenzene				detected	700	0.18 ug/L	2.00 ug/L	
630-20-6	1,1,1,2-tetrachloroethane				detected	1	0.18 ug/L	2.00 ug/L	
1330-20-7	m+p-Xylenes				detected	1	0.18 ppb 0.31 ug/L	4.00 ug/L	
1330-20-7	o-Xylene				detected	nle	0.13 ug/L	2.00 ug/L	
100-42-5	Styrene Styrene				detected	nle	0.13 ug/L 0.17 ug/L	2.00 ug/L 2.00 ug/L	
75-25-2	Bromoform				detected	100	0.17 ug/L 0.30 ug/L	2.00 ug/L 2.00 ug/L	
79-34-5						·	0.30 ug/L 0.22 ug/L	2.00 ug/L 2.00 ug/L	
	1,1,2,2-Tetrachloroethane				detected	1			
541-73-1	1,3-Dichlorobenzene				detected	600	0.17 ug/L	2.00 ug/L	
106-46-7	1,4-Dichlorobenzene				detected	75	0.18 ug/L	2.00 ug/L	
95-50-1	1,2-Dichlorobenzene			not]c	letected	600	0.18 ug/L	2.00 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank E = Value above linear range

E = Value above linear range D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

287 MW#01 Contract: Lab Name: FMETL SAS No.: SDG No.: 90130 Lab Code: 13461 Case No.: MW Matrix: (soil/water) WATER Lab Sample ID: 9013003 5.0 (g/ml) ML Lab File ID: Sample wt/vol: VA3319.D Level: (low/med) LOW Date Received: 3/27/2009 % Moisture: not dec. Date Analyzed: 4/10/2009 GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0 Soil Aliquot Volume: Soil Extract Volume: (uL) (uL) **CONCENTRATION UNITS:** UG/L (ug/L or ug/Kg) Number TICs found:

RT

EST. CONC.

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COMPOUND NAME

CAS NO.

SEMI-VOLATILE ORGANICS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

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Lab Name:	FMETL				Lab Code	13461	MD03310301		
Project:	90141		Case No.:	90130	Location	n: S	SDG No.:		
Matrix: (soil/w	vater)	WATER	₹		Lal	b Sample ID:	MB03310901		
Sample wt/vo	ot:	1000	(g/ml)	ML	Lal	o File ID:	D581.D		
Level: (low/m	ned)	LOW	Therefore Applications		Da	te Received:	3/27/2009		
% Moisture:		****	decanted:(Y	′/N) N	Da	te Extracted:	3/31/2009		
Concentrated	Extract '	Volume:	1000 ((uL)	Dat	te Analyzed:	4/10/2009		
Injection Volu	me: <u>1</u> .	0 (uL)			Dilu	ıtion Factor:	1.0		
GPC Cleanup	o: (Y/N)	N	pH:						

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	(ug/L or ug/Kg) UG/L			
110-86-1	Pyridine		10	U		
62-75-9	N-nitroso-dimethylamine		10	U		
62-53-3	Aniline		10	U		
108-95-2	Phenol		10	U		
111-44-4	bis(2-Chloroethyl)ether		10	U		
95-57-8	2-Chlorophenol		10	U		
541-73-1	1,3-Dichlorobenzene		10	U		
106-46-7	1,4-Dichlorobenzene		10	U		
100-51-6	Benzyl alcohol		10	U		
95-50-1	1,2-Dichlorobenzene		10	U		
95-48-7	2-Methylphenol		10	U		
39638-32-9	bis(2-chloroisopropyl)ethe	r	10	U		
106-44-5	4-Methylphenol		10	U		
621-64-7	n-Nitroso-di-n-propylamine	Э	10	U		
67-72-1	Hexachloroethane		10	U		
98-95-3	Nitrobenzene		10	U		
78-59-1	Isophorone		10	U		
88-75-5	2-Nitrophenol		10	U		
105-67-9	2,4-Dimethylphenol		10	U		
111-91-1	bis(2-Chloroethoxy)metha	ne	10	U		
120-83-2	2,4-Dichlorophenol		10	U		
65-85-0	Benzoic Acid		10	U		
120-82-1	1,2,4-Trichlorobenzene		10	U		
91-20-3	Naphthalene		10	U		
106-47-8	4-Chloroaniline		10	U		
87-68-3	Hexachlorobutadiene		10	U		
59-50-7	4-Chloro-3-methylphenol		10	U		
91-57-6	2-Methylnaphthalene		10	U		
77-47-4	Hexachlorocyclopentadien	e	10	U		
88-06-2	2,4,6-Trichlorophenol		10	U		
95-95-4	2,4,5-Trichlorophenol		10	U		
91-58-7	2-Chloronaphthalene		10	U		
88-74-4	2-Nitroaniline		10	U		
131-11-3	Dimethylphthalate		10	U		
208-96-8	Acenaphthylene		10	U		
606-20-2	2,6-Dinitrotoluene		10	U		
99-09-2	3-Nitroaniline		10	U		

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

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Lab Name:	FMETL			L	.ab Code	13461	MB033109	01
Project: 90141			ase No.: 90	130	Location	: S	SDG No.:	
Matrix: (soil/w	vater)	WATER			Lab	Sample ID:	MB03310901	
Sample wt/vo	ol:	1000	(g/ml) <u>M</u>	IL	Lab	File ID:	D581.D	
Level: (low/med)		LOW	nak Aller (Marajan)		Date	e Received:	3/27/2009	N-112
% Moisture:		de	ecanted:(Y/N	l) <u>N</u>	Date	e Extracted:	3/31/2009	
Concentrated	Extract \	Volume:	1000 (uL	_)	Date	e Analyzed:	4/10/2009	***
njection Volu	me: <u>1.</u>	0 (uL)			Dilut	ion Factor:	1.0	
GPC Cleanup	o: (Y/N)	Ν	рН:					

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		10	U
132-64-9	Dibenzofuran		10	U
100-02-7	4-Nitrophenol		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
86-73-7	Fluorene		10	U
7005-72-3	4-Chlorophenyl-phenyleth	er	10	U
100-01-6	4-Nitroaniline		10	U
534-52-1	4,6-Dinitro-2-methylpheno)	10	U
86-30-6	n-Nitrosodiphenylamine		10	U
103-33-3	Azobenzene		10	U
101-55-3	4-Bromophenyl-phenyleth	er	10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		10	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
92-87-5	Benzidine		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
56-55-3	Benzo[a]anthracene		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthalate		10	U
117-84-0	Di-n-octylphthalate		10	U_
205-99-2	Benzo[b]fluoranthene		10	U
207-08-9	Benzo[k]fluoranthene		10	U
50-32-8	Benzo[a]pyrene		10	U
193-39-5	Indeno[1,2,3-cd]pyrene		10	U
53-70-3	Dibenz[a,h]anthracene		10	U
191-24-2	Benzo[g,h,i]perylene		10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Field Id:

								MB033	10901
Lab Name:	FMETL				Lab C	ode <u>1346</u>]		
Project:	90141	C	ase No.:	90130	Loc	ation:	SE	DG No.:	
Matrix: (soil/v	vater)	WATER				Lab Samp	ole ID:	MB0331090)1
Sample wt/vo	ol:	1000	(g/ml)	ML		Lab File II	D :	D581.D	·
Level: (low/m	ned)	LOW	uniconnectal Address			Date Rece	eived:	3/27/2009	
% Moisture:	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	de	canted: (Y	′/N)	N	Date Extra	acted:	3/31/2009	
Concentrated	Extract	Volume:	1000	(uL)		Date Anal	yzed: 4	4/10/2009	
Injection Volu	me: <u>1.</u>	0(uL)				Dilution Fa	actor:	1.0	
GPC Cleanup): (Y/N)	N	pH:	······································					
					CONCE	ENTRATIO	u UNIT	S:	
Number TICs	found:	1			(ug/L or	ug/Kg)	UG/L		
CAS NUMBI	ΞR	СОМРО	UND NAM	IE .		RT	EST	CONC.	Q
1.		unknown	ketone	· · · · · · · · · · · · · · · · · · ·		6.10		27	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

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Lab Name:	FMETL				Lab Cod	e 13461	[2	287 FIELD BLA	ANK
Project:	90141		Case No.: 9	90130	Locati	on:	SDG	No.:	
Matrix: (soil/v	vater)	WATER			L	ab Sample II	D: 90	13002	
Sample wt/vc	ol:	1000	(g/ml)	ML	L	ab File ID:	D6	654.D	
Level: (low/med)		LOW			D	ate Received	d: 3/2	27/2009	
% Moisture:		(decanted:(Y/	/N)I	N D	ate Extracted	d: <u>3/</u> 3	31/2009	
Concentrated	Extract \	Volume:	1000 (uL)	, D	ate Analyzed	: 5/4	4/2009	
njection Volu	me: <u>1.</u>	0 (uL)			D	ilution Factor	: 1.0		
GPC Cleanup	o: (Y/N)	N	pH:	4040					

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
110-86-1	Pyridine		10	U
62-75-9	N-nitroso-dimethylamine		10	U
62-53-3	Aniline		10	U
108-95-2	Phenol		10	U
111-44-4	bis(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol	7,700	10	U
39638-32-9	bis(2-chloroisopropyl)ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	n-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	bis(2-Chloroethoxy)methane	9	10	U
120-83-2	2,4-Dichlorophenol		10	U .
65-85-0	Benzoic Acid		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		10	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		10	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

-	le:	ld l	d

Lab Name:	FMETL				La	b Code 13461	287 FIELD BLAN
Project:	90141		Case No.:	90130	~~~	Location:	SDG No.:
Matrix: (soil/v	vater)	WATER	₹			Lab Sample ID:	9013002
Sample wt/vo	ol:	1000	(g/ml)	ML		Lab File ID:	D654.D
_evel: (low/n	ned)	LOW				Date Received:	3/27/2009
% Moisture:	34.00		decanted:(`	Y/N)	N	Date Extracted:	3/31/2009
Concentrated	l Extract	Volume:	1000	(uL)		Date Analyzed:	5/4/2009
njection Volu	me: <u>1</u>	.0 (uL))			Dilution Factor:	1.0
GPC Cleanup	o: (Y/N)	N	pH:				

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		10	U
132-64-9	Dibenzofuran		10	U
100-02-7	4-Nitrophenol		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
86-73-7	Fluorene		10	U
7005-72-3	4-Chlorophenyl-phenylethe	r	10	U
100-01-6	4-Nitroaniline		10	U
534-52-1	4,6-Dinitro-2-methylphenol		10	U
86-30-6	n-Nitrosodiphenylamine		10	U
103-33-3	Azobenzene		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		10	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
92-87-5	Benzidine		10	· U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
56-55-3	Benzo[a]anthracene		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthalate		10	U
117-84-0	Di-n-octylphthalate	The state of the s	. 10	U
205-99-2	Benzo[b]fluoranthene		10	U
207-08-9	Benzo[k]fluoranthene		10	U
50-32-8	Benzo[a]pyrene		10	U
193-39-5	Indeno[1,2,3-cd]pyrene		10	U
53-70-3	Dibenz[a,h]anthracene		10	U
191-24-2	Benzo[g,h,i]perylene		10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Fiel	d ld:	
287	FIELD	BLANK

Lab Name:	FMETL			Lab C	ode 13	3461	LOTTILLO DEANN
Project:	90141	(Case No.: 90130	Loc	ation:	SI	DG No.:
Matrix: (soil/w	vater)	WATER			Lab Sa	ample ID:	9013002
Sample wt/vo	d:	1000	(g/ml) ML		Lab Fi	le ID:	D654.D
Level: (low/m	ned)	LOW	444 - Agricon		Date F	Received:	3/27/2009
% Moisture:		d	ecanted: (Y/N)	N	Date E	Extracted:	3/31/2009
Concentrated	Extract \	Volume:	1000 (uL)		Date A	nalyzed:	5/4/2009
Injection Volu	me: <u>1.0</u>	<u>)</u> (uL)			Dilutio	n Factor:	1.0
GPC Cleanup): (Y/N)	N	pH:				
				CONC	ENTRA	TION UNIT	S:
Number TICs	found:	2	and the state of t	(ug/L o	r ug/Kg)	UG/L	•
							2

			and half-half-half-half-half-half-half-half-	and the state of t
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown carboxylic acid	20.33	5	J
2.	unknown ketone	7.15	18	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

eld	Id
	eld

	02	VOLVINEE GIVEN WINGS AND EACH BOX TAX CONTECT	287 MW#01
Lab Name:	FMETL	Lab Code 13461	207 111117701

Project:	90141	C	ase No.: 90130)	Location: S	DG No.:
Matrix: (soil/v	vater)	WATER			Lab Sample ID:	9013003
Sample wt/vc	ol:	1000	(g/ml) ML		Lab File ID:	D584.D
Level: (low/n	ned)	LOW			Date Received:	3/27/2009
% Moisture:		d	ecanted:(Y/N)	N	Date Extracted:	3/31/2009
Concentrated	I Extract	Volume:	1000 (uL)		Date Analyzed:	4/10/2009
njection Volu	ıme: <u>1</u>	0 (uL)			Dilution Factor:	1.0
GPC Cleanur	o: (Y/N)	N	pH·			

CONCENTRATION UNITS:

		CONCENTIAL	ON UNITS.	
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
110-86-1	Pyridine		10	U
62-75-9	N-nitroso-dimethylamine		10	U
62-53-3	Aniline		10	U
108-95-2	Phenol		10	U
111-44-4	bis(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
39638-32-9	bis(2-chloroisopropyl)ethe	er	10	U
106-44-5	4-Methylphenol		10	U
621-64-7	n-Nitroso-di-n-propylamin	ie	10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene	A STATE OF THE STA	10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	bis(2-Chloroethoxy)metha	ane	10	U
120-83-2	2,4-Dichlorophenol		10	U
65-85-0	Benzoic Acid		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadier	ne	10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		10	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		10	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		10	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

F	iel	Ы	ld
		u	10

	(E1010 D1	THE OTTEL	287 MW#01
FMETL	Lab Code	13461	

Lab Name: Project: 90141 Case No.: 90130 Location: SDG No.: WATER Matrix: (soil/water) Lab Sample ID: 9013003 Sample wt/vol: 1000 (g/ml) ML Lab File ID: D584.D Level: (low/med) LOW Date Received: 3/27/2009 % Moisture: Date Extracted: 3/31/2009 decanted:(Y/N) Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/10/2009 Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		10	U
132-64-9	Dibenzofuran		10	U
100-02-7	4-Nitrophenol		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
86-73-7	Fluorene	4.4	10	U
7005-72-3	4-Chlorophenyl-phenyle	ther	10	U
100-01-6	4-Nitroaniline		10	U
534-52-1	4,6-Dinitro-2-methylphe	nol	10	U
86-30-6	n-Nitrosodiphenylamine		10	U
103-33-3	Azobenzene		10	U
101-55-3	4-Bromophenyl-phenyle	ther	10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		10	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
92-87-5	Benzidine		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
56-55-3	Benzo[a]anthracene		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthala	te	10	U
117-84-0	Di-n-octylphthalate		10	U
205-99-2	Benzo[b]fluoranthene		10	U
207-08-9	Benzo[k]fluoranthene		10	U
50-32-8	Benzo[a]pyrene		10	U
193-39-5	Indeno[1,2,3-cd]pyrene		10	U
53-70-3	Dibenz[a,h]anthracene		10	U
191-24-2	Benzo[g,h,i]perylene		10	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

H	le	d	l	d	:

		,		25 001111 001120		007 8884404
Lab Name:	FMETL			Lab Code 13461		287 MW#01
Project:	90141	C	ase No.: 90130	Location:	S	DG No.:
Matrix: (soil/v	water)	WATER		Lab Sampl	e ID:	9013003
Sample wt/vo	ol:	1000	(g/ml) ML	Lab File ID		D584.D
Level: (low/n	ned)	LOW	Addr-man-	Date Recei	ved:	3/27/2009
% Moisture:		de	canted: (Y/N)	N Date Extra	cted:	3/31/2009
Concentrated	d Extract	Volume:	1000 (uL)	Date Analy	zed:	4/10/2009
Injection Volu	ıme: <u>1.</u> 0) (uL)		Dilution Fac	ctor:	1.0
GPC Cleanup	o: (Y/N)	N	pH:			
				•		
				CONCENTRATION	UNI	ΓS:
Number TICs	found:	3		(ug/L or ug/Kg)	UG/L	<u> </u>

				-1
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown ketone	6.10	20	J
2.	unknown carboxylic acid	19.38	5	J
3.	unknown carboxylic acid	21.00	4	J

LEAD

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

Site:

Ft. Monmouth

287 Wells

Lab ID #: 90130

Sample Received: 03/27/09

Analysis Start: 04/15/09

Analysis Completed: 04/15/09

Matrix: AQ

Method of Analysis:

Std Methods 18th, Method 3120B

Method of Digestion:

E.P.A SW-846, Method 3010A

TEST PARAMETER: Lead

Laboratory ID	Sample Location Identification	Result (ug/L)	GW Criteria (ug/L)*	MDL (ug/L)	RL (ug/L)
9013002	287 Field Blank	ND	5.0	0.700	5.00
9013003	287 MW01	ND	5.0	0.700	5.00
Method Blank	Method Blank	ND	5.0	0.700	5.00

Estimated results between MDL & R.L

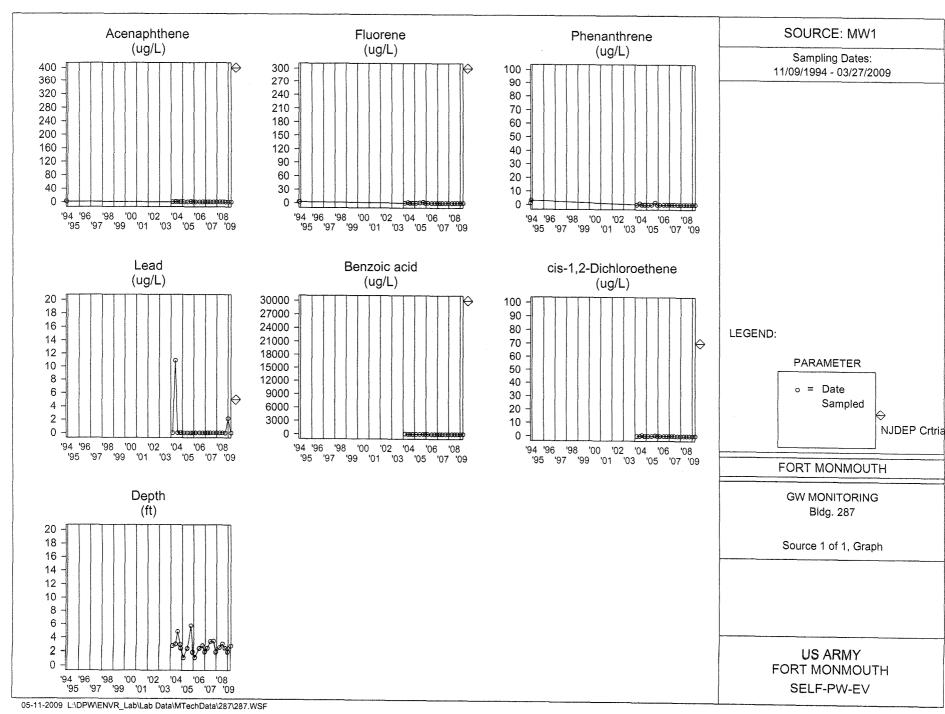
ND = Not Detected, NA = Not Applicable

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9c 11/07/05 RL = Reporting Limit.

LTM

	Lab	Acenaph- thene	Fluorene	Phenan- threne	Lead	Benzoic acid	cis-1,2-Di chloro	Depth	Notes	SOURCE: MW1 Sampling Dates:
11-:4-		//	/1	/1	/1	110/1	ethene	ft		11/09/1994 - 03/27/2009
Units: NJDEP Crtria	,	ug/L 400	ug/L 300	ug/L NLE	ug/L 5	ug/L 30000	ug/L 70	11		NOTES:
11/09/1994	Nytest	2	2	1		30000	70		A	
12/01/1994	Nytest	1	2	3					B	VOCs & semi-VOCs analyzed.
02/23/2004	FMETL	ND	ND	ND	ND	72.15	ND	2.77	V,S,Pb,T	A - Dimethylphthalate in Trip /
05/25/2004	FMETL	1.06	1.44	0.97	10.9	ND	ND	2.99	V,S,Pb,T	. Field blanks.
08/05/2004	FMETL	ND	ND	ND	ND	ND	0.76	4.84	V,S,Pb,T	B - Di-n-butylphthalate in Trip /
10/21/2004	FMETL	ND	ND	ND	ND	ND	ND	2.95	V,S,Pb,T	. Field blanks.
11/19/2004	FMETL	ND	ND	ND	ND	ND	ND	2.38	V,S,Pb,T	
02/18/2005	FMETL	ND	ND	ND	ND	ND	ND	1.11	V,S,Pb,T	
06/10/2005	FMETL	ND	0.84	ND	ND	ND	ND	2.38	V,S,Pb,T	
09/29/2005	FMETL	1.29	2.31	1.58	ND	ND	0.50	5.71	V,S,Pb,T	
12/05/2005	FMETL	ND	ND	ND	ND	ND	ND	1.86	V,S,Pb,T	
02/17/2006	FMETL	ND	ND	ND	ND	ND	ND	1.11	V,S,Pb,T	
06/30/2006	FMETL	ND	ND	ND	ND	ND	ND	2.37	V,S,Pb,T	
09/29/2006	FMETL	ND	ND	ND	ND	ND	ND	2.78	V,S,Pb,T	
12/28/2006	FMETL	ND	ND	ND	ND	ND	ND	1.91	V,S,Pb,T	
03/14/2007	FMETL	ND	ND	ND	ND	ND	ND	2.40	V,S,Pb	
05/31/2007	FMETL	ND	ND	ND	ND	ND	ND	3.38	V,S,Pb,T	
09/17/2007	FMETL	ND	ND	ND	ND	ND	ND	3.45	V,S,Pb,T	
12/20/2007	FMETL	ND	ND	ND	ND	ND	ND	1.91	V,S,Pb,T	
03/31/2008	FMETL	ND	ND	ND	ND	ND	ND	2.50	V,S,Pb	
06/27/2008	FMETL	ND	ND	ND	ND	ND	ND	3.05	V,S,Pb	
09/25/2008	FMETL		ND	ND	ND	12	ND	2.46	V,S,Pb	
12/29/2008	FMETL		ND	ND	2.14	ND	ND	1.91	V,S,Pb	
03/27/2009	FMETL	ND	ND	ND	ND	ND	ND	2.73	V,S,Pb	FORT MONMOUTH
										GW MONITORING Bldg. 287
										Source 1 of 1
										US ARMY FORT MONMOUTH SELF-PW-EV





FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

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

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING



ANALYTICAL DATA REPORT FOR Directorate of Public Works Fort Monmouth, NJ 07703

PROJECT: DERA/ Long Term Monitoring

SAMPLE LOCATION AND IDENTIFICATION

SITE: 287

LABORATORY ID#	MONITOR WELL#	NJDEP WELL ID#	SAMPLE DATE
9023104	0287MW01	29-30964	06/11/09

NJDEP Laboratory Certification # 13461

Jeon May 7/28/09

Jacqueline Hamer/Date: For J.H.

QA/QC Supervisor

METHODOLOGY SUMMARY

PARAMETER	REFERENCE
TARGET ANALYTE LIST	Standard Methods, 18th ed.
METALS	
Aluminum	3120B
Antimony	3120B
Arsenic	3120B
Barium	3120B
Beryllium	3120B
Cadmium	3120B
Calcium	3120B
Chromium	3120B
Cobalt	3120B
Copper	3120B
Iron	3120B
Lead	3120B
Magnesium	3120B
Manganese	3120B
Mercury	3112B
Nickel	3120B
Potassium	3120B
Selenium	3120B
Silver	3120B
Sodium	3120B
Thallium	3120B
Vanadium	3120B
Zinc	3120B

PARAMETER	REFERENCE
TARGET COMPOUND LIST	Federal Register 40 CFR Part
ORGANICS	136
	Appendix A
Base/Neutral and Acid	625
Extractables by GC/MS	
Purgeable Organics by	624
GC/MS	
Pesticide and PCB by GC	608

SAMPLING

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703 Tel (732)532-4359 Fax (732)532-6263 EMail:jacqueline.hamer@us.army.mil NJDEP Certification #13461

Chain of Custody Record

Customer: JoE	FA	LLON	Project No:					X	Anal	ysis P	aramet	ers			Comments:
Phone #: 732 - 9	332	-6223	Location: 2				Ŋ	25							
()DERA ()OMA		لسمين بيني بيسيسي	MONITOR		SAMPI	7,170-	+	ナ							
Samplers Name / Co	mpany:	WALTER F	UNIC/-	tvs	Sample	#	VOA+IS	4BN +25	6 b						
LIMS/Work Order#		ample Location	Date	Time	Туре	bottles	<u> </u>	Q.	0						Remarks / Preservation Method
90231.01	1	TRIP BLANK			AQ	2	\geq								
		FIELD BLANK	and the second s		AQ	4	\geq	X	\times						
Contract to the second		DOG.			AQ	4	\geq	X	\geq						
04	287	MW#01	06-11-09	13/30	AQ	4	\geq	\times	\geq						29-30964
		A							ļ						
Andreas Control of the Control of th						<u> </u>									
	ļ	The second secon							<u> </u>						
						ļ			<u> </u>						
					ļ	ļ									
						<u> </u>			ļ						
							<u> </u>		ļ	ļ	ļļ.				
Relinquished by (signated)		Date/Time:	Received by	(signature):	W.	Relin	quishe	d by (si	gnature	e): 	Date/T	ime:	Receiv	ed by	(signature):
Relinquished by (signat		Date/Time:	Received by	(signature):		Relin	•		gnature					•	(signature):
Report Type: ()Full, (Turnaround time: ()Sta							A	BN	CAI	uce	elled		Sel	Pr	ageet 90244

SAMPLE RECEIPT FORM

Date Received:	<u>le</u>	-18-09	Work Order	ID#:	10244
Site/Proj. Name:	284	BUDGIR-CA	Cooler Temp	(°C):	3.0°
Received By: 6 (Print name)	J.W	enguna	Sign:	<u>M</u>	yma
		Check the app	<u>ropriate box</u>	6)
1. Did the sample	s com	e in a cooler?		yes yes	□ no □ n/a
2. Were samples	rec'd ii	n good condition?		☑ yes	□ no
3. Was the chain	of cust	tody filled out correct	ly and legibly?	🛮 yes	no no
4. Was the chain	of cust	ody signed in the ap	propriate place? 🍃	🛮 yes	□ no
5. Did the labels a	agree v	with the chain of cust	ody?	☑ yes	∕□ no
6. Were the corre	ct cont	tainers/preservatives	used?	yes	⊂ no
7. Was a sufficien	t amou	unt of sample supplie	ed?	🛭 yes	□ no
8. Were air bubble	es pres	sent in VOA vials?	ĺ	□ yes	☑ no □ n/a
9. Were samples	receive	ed on ice?		2 yes	□ no
10. Were analyze	-imme	diately tests perform	within 15 minutes [∃ yesl	□ no ☑ n/a
					*
Fill out the fo	llowi	ng table for eac	h sample bottle	е	
Lims ID,	рН	Preservative (Sample ID	рН	Preservative
Lims ID 90244 // 2	рН	Preservative	Sample ID	рН	Preservative
Lims ID 40244/12	pH N/A	Preservative (Sample ID	рН	Preservative
Lims ID 40244/	рН - <i>/</i> ////	Preservative (Sample ID	рН	Preservative
Lims ID 402444 /1 2	рН - <i>N</i> ///	Preservative (Sample ID	pH	Preservative
Lims ID 40344/13	pH - <i>∿//</i> /	Preservative (Sample ID	рН	Preservative
Lims ID.	рН <i>W/H</i>	Preservative (Sample ID	рН	Preservative
Lims ID 40344/13	pH N/H	Preservative (Sample ID	рН	Preservative
Lims ID 40244/3	рН - <i>\v\/</i>	Preservative (Sample ID	рН	Preservative
Lims ID 402444 / 2	pH N/A	Preservative (Sample ID	pH	Preservative
Lims ID 40244/12	pH -N/H	Preservative (Sample ID	pH	Preservative
Lims ID.	pH -N/H	Preservative	Sample ID	pH	Preservative
Lims ID 40244/12	pH N/H	Preservative	Sample ID	pH	Preservative
Lims ID 40244 / 1-2	pH -N/H	Preservative	Sample ID	pH	Preservative
Lims ID 40244/12	pH N/H	Preservative	Sample ID	pH	Preservative
Lims ID 40244/12	pH -N/H	Preservative	Sample ID	pH	Preservative
90244/12	NH	ACINA	Sample ID	pH	Preservative
Lims ID ADSHILL Comments:	NH	ACINA	Sample ID	pH	Preservative
90244/12	NH	ACINA	Sample ID	pH	Preservative
90244/12	NH	ACINA	Sample ID	pH	Preservative



print legibly

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:jacqueline.hamer@us.army.mil

Chain of Custody Record

new coc..XLS6/2/2009

NJDEP Certification #13461

Customer: Joe /	Project No:				Analysis Parameters						Comments:			
Phone #: 732 3	Location: 2/LD GTR DG MONITON WELL SAME				2									
()DERA ()OMA ())Other:	MOALIT	ton Ul	<u>415</u>	and	ABNITAS								
Samplers Name / Comp	pany: GEONAL	BOYE.	e 170	Sample	#	BK								
LIMS/Work Order #	Sample Location	Date	Time	Туре	bottles	Ā								Remarks / Preservation Method
90244 01	F.B	6/18/09	0920	A	2	X							-	
Q 020	284MW01	6/18/09	0930	A	2	X								
03	SIP.	Ce/18/09	0430	A	2	X								
													···	

Relinquished by (signatur	/ /	Received by	(signature):	M	Relin	quished	l by (si	gnature):	Date	Time:	Recei	ved by	(signature):
Relinquished by (signature): Date/Time:					Relin	nquished by (signature): Date/Time:				/Time:	Received by (signature):			
Report Type: ()Full, ()	Reduced, Standard, Scr	en / non-certi	fied, ()EDD											
Turnaround time: ()Stand	dard 3 wks, ()Rush Wk.,_()ASAP Verba	lHrs.		,	<u> </u>								

SAMPLE RECEIPT FORM

Date Received:	_a	-11-66	Work Order	ID#: _	10/231
Site/Proj. Name	28	1/208000	Cooler Temp	(°C):	4.6
Received By: (Print name)	J. 6	1 e roju M	Sign:	eli	MIN
		Check the app	ropriate box	1	, , , , , , , , , , , , , , , , , , ,
1. Did the sample			/	Lilyes	□ no □ n/a
•		n good condition?	/		no no
3. Was the chain	of cust	tody filled out correct	tly and legibly?	Ø ye€	∏ no
4. Was the chain	of cust	tody signed in the ap	propriate place? 🖊	🛭 yes	□ no
5. Did the labels	agree v	with the chain of cust	ody?	D yes	no
6. Were the corre	ct cont	tainers/preservatives	used?	🛭 yes	no
7. Was a sufficier	it amoi	unt of sample supplie	ed?	☑ yes	□ no
8. Were air bubbl	es pres	sent in VOA vials?	,	□ yes	☑ no □ n/a
9. Were samples	receive	ed on ice?		 yes	□ no /
10. Were analyze	-imme	diately tests perform	within 15 minutes	□ yesl	□ no lo n/a
Fill out the fo	llowi	ng table for eac	h sample bottl	е	
Lims ID	pН	Preservative	Sample ID	pH	Preservative
	Pii	i rescribative	Sample 1D	P.,	1 1 CSCI Vacive
	p	T reservative	Sample 15	B.,	11CSCIVACIVE
	Pii	reservative	Sumple 15	P	Treservative
	Pii	reservative	Sample 15		Treservative
		reservative	Sample 12		Treservative
	Pii	T C C C T C C C C C C C C C C C C C C C	Jampie 12		
		·			
		·			
Comments:					

US ARMY FORT MONMOUTH MONITOR WELL SAMPLING

Sampling Conducted in LOCATION: 287 Accordance with TVS SOP MW #:01 NJDEP ID # 29-30964 SAM-0205 NJDEP CERT. # 13461 SAMPLING CONTRACTOR: TECOM-VINNELL SERVICES SAMPLER: WALTER FUNK DATE: 06/18/09 WEATHER: Rain and cool. TIDE: N/A Initial Readings: Elevation of Casing Survey Mark: 2.09 ft Depth of Well: 14.55 ft Height of Water in Well: 12.46 ft PID/FID Reading: 0.00 ppm Gallons of Water to be Purged: 26 Gal. Formula: ht.of water x (0.163 for 2" well or 0.65 for 4" well) x = 24.29Purge Method: Peristaltic Pump/Other (Specify) Purge Rate: Not to Exceed Well Draw Down of 0.5 26/113 Gal/Min. Purge Data: Start Time of Purging: 07:32 End Time of Purging: 09:23 Initial Value **Pre-Sample Post-Sample** pH: 7.32 su 7.40 su 7.45 su Temperature: 17.42 (°C) 17.67 (°C) 17.43 (°C) Specific Conductivity: 2991 us/cm 2332 us/cm 2309 us/cm ORP: -67 mv -84 mv -188 mv DO: 1.12 mg/L 1.18 mg/L 1.10 mg/L Depth to Water Post Purge: 2.46 Depth to Water Post Sampling: 2.49 Sampling Start Time: 13:30

Comments:	Semi-Volatiles resampled on 6/18/09 as 90244 due to breakage.

13:38

Sampling End Time:

CONFORMANCE/ NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

			Indicate Yes, No, N/A
1.	Chromatograms labeled/	Compounds identified	
	(Field samples and a	•	yes
2.	Retention times for chro	matograms provided	405
3.	GC/MS Tune Specificati	ions	
	a. B	FB Meet Criteria	loes
		FTPP Meet Criteria	Les
4.		cy – Performed every 24 hours for 600	-9
	series and 12 hours for 8	2000 series	<u> yes</u>
5.	analysis and continuing	itial Calibration performed before sample calibration performed within 24 hours of series and 12 hours for 8000 series	<u>yes</u>
6.	GC/MS Calibration requ	irements	v
	a. Ca	alibration Check Compounds Meet Criteria	201
		ystem Performance Check Compounds Meet Criteria	LIES
7.	Blank Contamination – I	f yes, List compounds and concentrations in each blank:	100
	a. V	OA Fraction	
		N Fraction	
		cid Fraction	
8.	Surrogate Recoveries Me	eet Criteria	yes
	If not met, list those outside the acceptab	compounds and their recoveries, which fall le range:	·
	a. Ve	OA Fraction	
		N Fraction	
	c. Ac	cid Fraction	
	If not met, were the as "estimated"?	calculations checked and the results qualified	
9.	Matrix Spike/Matrix Spi	ke Duplicate Recoveries Meet Criteria	yes
- •		mpounds and their recoveries, which fall	
	outside the acceptable ra		
	a. Ve	OA Fraction	
	b. B/	/N Fraction	
	c. Ac	cid Fraction	

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

		Indicate Yes, No, N/A
10.	Internal Standard Area/Retention Time Shift Meet Criteria (If not met, list those compounds, which fall outside the acceptable range)	yes.
	a. VOA Fraction	
	b. B/N Fraction c. Acid Fraction	
11.	Extraction Holding Time Met	yes
	If not met, list the number of days exceeded for each sample:	
12.	Analysis Holding Time Met	408
	If not met, list the number of days exceeded for each sample:	· ·
Add	litional Comments:	
Lab	oratory Manager: Jung Wille Date: 10 07 09	

METALS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY REPORT

				Indicate Yes, No, N/	Ά
	Initial and Continuing Calibration Verifications Meet Criteri	a 		yes	
	ICP Interference Check Sample Results Meet Criteria	denden		4es	
	Serial Dilutions Meet Criteria	_		425	
	Laboratory Control Samples Meet Criteria			15	
	Preparation, Method and Calibration Blank Contamination If yes, list compounds and concentrations in each blank			NO	
	Spike Sample Recoveries Meet Criteria	_		Yec,	
	Duplicates Meet Criteria	****		Yes_	
	Analysis Holding Time Met If not met, list number of days exceeded for each sample			yes	
'n	al Comments				
	ory Manager: January Jene Hower	_ _Date: _	10/0	7/03	

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEP CERTIFICATION # 13461

Definition of Qualifiers

- U: The compound was analyzed for but not detected.
- B: Indicates that the compound was found in the associated method blank as well as in the sample.
- J: Indicates an estimated value. This flag is used:
 - (1) When the mass spec and retention time data indicate the presence of a compound however the result is less than the reporting limit but greater than the MDL.
 - (2) When estimating the concentration of a tentatively identified compound (TIC), where a 1:1 response is assumed.
- D: This flag is used to identify all compounds (target or TIC) that required a dilution.
- E: Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.
- N: This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

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

Data File

Date Acquired

VA3763.D

Sample Name

MB06150901

Operator F

ROBERTS

15 Jun 2009 10:53 am

Field ID

METHOD 624 6/15/09

Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein				detected	5	2.09 ug/		
107131	Acrylonitrile				detected	2	1.64 ug/		
75650	tert-Butyl alcohol				detected	100	1.89 ug/		
1634044	Methyl-tert-Butyl ether				detected	70	0.18 ug/		
108203	Di-isopropyl ether				detected	20000	0.12 ug/		
75718	Dichlorodifluoromethane				detected	1000	0.22 ug/		
74-87-3	Chloromethane				detected	nle	0.10 ug/		
75-01-4	Vinyl Chloride				detected	nie l	0.22 ug/		
74-83-9	Bromomethane				detected	10	0.25 ug/		
75-00-3	Chloroethane				detected	nle	0.22 ug/		
75-69-4	Trichlorofluoromethane				detected	2000	0.18 ug/l		
75-35-4	1,1-Dichloroethene				detected	2000	0.18 ug/l		
67-64-1	Acetone				detected		0.20 ug/l		
75-15-0	Carbon Disulfide				detected	6000	0.18 ug/1		
75-09-2	Methylene Chloride			·	detected	700	0.16 ug/l		
156-60-5					detected		0.16 ug/1		
	trans-1,2-Dichloroethene					100			
75-35-3	1,1-Dichloroethane				detected	50	0.19 ug/I		
108-05-4	Vinyl Acetate				detected	7000	0.20 ug/l		
78-93-3	2-Butanone				detected	300	0.16 ug/1		
156-59-2	cis-1,2-Dichloroethene				detected	70	0.14 ug/l		
67-66-3	Chloroform				detected	70	0.21 ug/l		
75-55-6	1,1,1-Trichloroethane				detected	30	0.17 ug/I		***************************************
56-23-5	Carbon Tetrachloride				detected	1	0.27 ug/l		
71-43-2	Benzene				detected		0,16 ug/l		
107-06-2	1,2-Dichloroethane				detected	2	0.19 ug/I		
79-01-6	Trichloroethene				detected		0.18 ug/I		
78-87-5	1,2-Dichloropropane				detected	1	0.16 ug/l		
75-27-4	Bromodichloromethane				detected	1	0.14 ug/l		
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.25 ug/I		
10061-01-5	cis-1,3-Dichloropropene			not	detected	1	0.16 ug/I		
108-10-1	4-Methyl-2-Pentanone			not	detected	nle	0.26 ug/l		
108-88-3	Toluene			not	detected	1000	0.15 ug/I		
10061-02-6	trans-1,3-Dichloropropene			not	detected	1	0.12 ug/l	. 0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not	detected	3	0.14 ug/I	. 0.50 ug/L	
127-18-4	Tetrachloroethene			not	detected	<u> </u>	0.18 ug/l		
591-78-6	2-Hexanone			not	detected	nle	0.20 ug/I	. 0.50 ug/L	
126-48-1	Dibromochloromethane			not	detected	1	0.14 ug/I	. 0.50 ug/L	
108-90-7	Chlorobenzene			not	detected	50	0.15 ug/I	. 0.50 ug/L	
100-41-4	Ethylbenzene			not	detected	700	0.16 ug/l	. 0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not	detected	1	0.15 ppt	0.50 ppb	
1330-20-7	m+p-Xylenes				detected	nle	0.27 ug/l		
1330-20-7	o-Xylene				detected	nle	0.14 ug/I		
100-42-5	Styrene			not	detected	100	0.12 ug/I	. 0.50 ug/L	
75-25-2	Bromoform				detected	4	0.14 ug/I		***************************************
79-34-5	1,1,2,2-Tetrachloroethane				detected	1	0.12 ug/L		
541-73-1	1,3-Dichlorobenzene				detected	600	0.12 ug/I		W
106-46-7	1,4-Dichlorobenzene		<u> </u>		detected	75	0.12 ug/I		
95-50-1	1,2-Dichlorobenzene				detected	600	0.12 ug/I		

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank E = Value above linear range D = Value from dilution PQL = Practical Quantitation Limit MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB06150901

CAS NO.		COMP	OUND NAM	E		RT E	ST. CONC	D .	Q
Number TICs	s found:	0			ONCENTRATI g/L or ug/Kg)				
Soil Extract V	olume:		(uL)		Soil	Aliquot Vol	ume:		(uL)
GC Column:	RTX-V	M ID:	0.25 (mr	n)	Dilu	tion Factor:	1.0		
% Moisture: r	not dec.				Date	e Analyzed:	6/15/200)9	
Level: (low/n	ned)	LOW			Date	e Received:	6/11/200)9	
Sample wt/vo	ol:	5.0	(g/ml)	ML	Lab	File ID:	VA3763	.D	
Matrix: (soil/v	vater)	WATER	₹		Lab	Sample ID	MB0615	0901	P70
Lab Code:	13461		Case No.: N	ΛW	SAS No.	;	SDG No.:	90231	****
Lab Name:	FMEIL				Contract:		<u>L</u>		

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

Data File Operator

Date Acquired

VA3782.D

ROBERTS

15 Jun 2009 9:33 pm

Sample Name 9023101

Field ID 287 TRIP BLANK Sample Multiplier 1

Regulatory Level (ug/l)*

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not	detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not	detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not	detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not	detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not	detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not	detected	1000	0.22 ug/L	0.50 ug/L	
74-87-3	Chloromethane				detected	nle	0.10 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	0.25 ug/L	0.50 ug/L	
75-00-3	Chloroethane			not	detected	nle	0.22 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not	detected	2000	0.18 ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not	detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not	detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not	detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not	detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not	detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not	detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not	detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not	detected	300	0.16 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene			not	detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not	detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not	detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not	detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not	detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not	detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not	detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not	detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not	detected	ı	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not	detected	nle	0.25 ug/L	0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not	detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not	detected	nle	0.26 ug/L	0.50 ug/L	
108-88-3	Toluene			not	detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not	detected	1	0.12 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	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not	detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not	detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not	detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene				detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not	detected	1	0.15 ppb	0.50 ppb	
1330-20-7	m+p-Xylenes			not	detected	nle	0,27 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	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform				detected	4	0.14 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene				detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			~~~~	detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.12 ug/L	0.50 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

NLE = No Limit Established

MDL = Method Detection Limit

D = Value from dilution

R.T. = Retention Time

PQL = Practical Quantitation Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

287 TRIP BLANK

Lab Name:	FMETL			Contract:		L	
Lab Code:	13461	C	Case No.: MV	V SAS No).:	SDG No.: 9023	1
Matrix: (soil/w	vater)	WATER	maga manamadah Andra	Lal	b Sample ID:	9023101	The state of the s
Sample wt/vo	ol:	5.0	(g/ml) M	LLal	b File ID:	VA3782.D	
Level: (low/n	ned)	LOW		Da	te Received:	6/11/2009	
% Moisture: r	not dec.		ALP/PERSONAL PROPERTY OF THE PERSONAL PROPERTY	Da	te Analyzed:	6/15/2009	
GC Column:	RTX-V	/M ID:	0.25 (mm)	Dili	ution Factor:	1.0	
Soil Extract V	olume:		(uL)	Soi	il Aliquot Volu	ume:	(uL)
Number TICs	s found:	0		CONCENTRAT (ug/L or ug/Kg)			
CAS NO.		COMPO	OUND NAME		RT E	ST. CONC.	0
CAS NO.		COMPO	JUND NAME		KI E	ST. CONC.	Q

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

Data File Operator

Date Acquired

VA3783.D

ROBERTS

15 Jun 2009 10:06 pm

Sample Name Field ID 9023102

287 FIELD BLANK

Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL		RL	Qualifiers
107028	Acrolein			not	detected	5	2.09	ug/L	5.00 ug/L	
107131	Acrylonitrile			not	detected	2	1.64	ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not	detected	100	1.89	ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not	detected	70	0.18	ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not	detected	20000	0.12	ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not	detected	1000	0.22	ug/L	0.50 ug/L	
74-87-3	Chloromethane			not	detected	nle	0.10	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		ug/L	0.50 ug/L	
75-00-3	Chloroethane			not	detected	nle	0.22	ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane			not	detected	2000		ug/L	0.50 ug/L	
75-35-4	1,1-Dichloroethene				detected	1		ug/L	0.50 ug/L	
67-64-1	Acetone				detected	6000		ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not	detected	700		ug/L	0.50 ug/L	
75-09-2	Methylene Chloride				detected	3		ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene				detected	100	0.20		0.50 ug/L	
75-35-3	1,1-Dichloroethane				detected	50	0.19		0.50 ug/L	
108-05-4	Vinyl Acetate				detected	7000	0.20		0.50 ug/L	
78-93-3	2-Butanone				detected	300		ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene	***			detected	70	0.14		0.50 ug/L	
67-66-3	Chloroform				detected	70	0.21	ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.17		0.50 ug/L	
56-23-5	Carbon Tetrachloride				detected	1	0.27		0.50 ug/L	
71-43-2	Benzene				detected		0.16		0.50 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.19		0.50 ug/L	
79-01-6	Trichloroethene				detected	1	0.18		0.50 ug/L	
78-87-5	1,2-Dichloropropane	***************************************			detected		0.16		0.50 ug/L	
75-27-4	Bromodichloromethane				detected		0.14		0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.14		0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene	***************************************			detected	nie	0.16		0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.16		0.50 ug/L	***
108-88-3	Toluene Toluene				detected	1000	0.15		0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1000	0.13		0.50 ug/L	
79-00-5	1,1,2-Trichloroethane				detected		0.12		0.50 ug/L 0.50 ug/L	
127-18-4	4				detected	3	0.14		0.50 ug/L	
591-78-6	Tetrachloroethene				detected	1	0.18		0.50 ug/L 0.50 ug/L	
	2-Hexanone					nle	0.20			
126-48-1	Dibromochloromethane				detected		0.14		0.50 ug/L	
108-90-7	Chlorobenzene				detected	50			0.50 ug/L	
100-41-4	Ethylbenzene				detected	700	0.16		0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane				detected		0.15		0.50 ppb	
1330-20-7	m+p-Xylenes				detected	nle	0.27		1.00 ug/L	
1330-20-7	o-Xylene				detected	nle	0.14		0.50 ug/L	
100-42-5	Styrene				detected	100	0.12		0.50 ug/L	
75-25-2	Bromoform				detected	4	0.14		0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected		0.12		0.50 ug/L	
541-73-1	1,3-Dichlorobenzene				detected	600	0.12		0.50 ug/L	
106-46-7	1,4-Dichlorobenzene				detected	75	0.12		0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.12	ug/L	0.50 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution PQL = Practical Quantitation Limit MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

287 FIELD BLANK

Lab Name:	FMEIL			Contract	•	L		
Lab Code:	13461		Case No.: MV	SAS N	10.:	SDG No.:	90231	
Matrix: (soil/w	vater)	WATER		L	ab Sample II	D: 9023102	2	
Sample wt/vo	ol:	5.0	(g/ml) ML		ab File ID:	VA3783	.D	
Level: (low/m	ned)	LOW		D	ate Receive	d: 6/11/200)9	
% Moisture: r	not dec.		maga marana a marana a marana da da da marana da da da marana da da da da marana da	D	ate Analyze	d: 6/15/200)9	
GC Column:	RTX-V	M ID:	0.25 (mm)	· D	ilution Facto	r: 1.0		
Soil Extract V	olume:		(uL)	S	oil Aliquot V	olume:		(uL)
Number TICs	s found:	0		CONCENTRA (ug/L or ug/Ko				
1								
CAS NO.		COMP	OUND NAME		RT	EST. CONC	5 . (Q

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

 Data File
 VA3784.D
 Sample Name
 9023103

 Operator
 ROBERTS
 Field ID
 287 DUP

Date Acquired 15 Jun 2009 10:37 pm Sample Multiplier 1

197028	CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
197131 Aerybentribe	107028	Acrolein			not	detected	5	2.09 ug/L		
156104 Methylect-stayl ether Do	107131	Acrylonitrile			not	detected				
1034044 Metholenet-Buryl other	75650	tert-Butyl alcohol			not	detected				
Designerant elbers Designe	1634044	Methyl-tert-Butyl ether			not	detected			· · · · · · · · · · · · · · · · · · ·	
1.5718	108203	Di-isopropyl ether			not	detected				
74.87-3	75718									
73-01-4	74-87-3	Chloromethane			not	detected				
74.83-9 Bronnentlane not detected not 0.25 ug/L 0.50 ug/L 75.09-3 Trichlorubromethine not detected not 0.22 ug/L 0.50 ug/L 75.49-4 Trichlorubromethine not detected not 0.20 ug/L 0.50 ug/L 75.55-4 1.1-Dichlorushene not detected not 0.20 ug/L 0.50 ug/L 75.15-5 1.1-Dichlorushene not detected not 0.20 ug/L 0.50 ug/L 75.15-10 Carbon Disalfide not detected not 0.20 ug/L 0.50 ug/L 75.15-10 Carbon Disalfide not detected not 0.20 ug/L 0.50 ug/L 75.09-2 Methylene Climide not detected not 0.20 ug/L 0.50 ug/L 156.00-5 trans-1_2-Obelfornethine not detected 100 0.20 ug/L 0.50 ug/L 156.00-5 trans-1_2-Obelfornethine not detected 100 0.20 ug/L 0.50 ug/L 178.25-3 1.1-Dichlorushene not detected 100 0.20 ug/L 0.50 ug/L 178.25-3 2-Batanone not detected 100 0.20 ug/L 0.50 ug/L 178.25-3 2-Batanone not detected 100 0.16 ug/L 0.50 ug/L 179.55-5 0.11-11 1.1-Tickhorothane not detected not 0.16 ug/L 0.50 ug/L 179.55-5 0.11-11 1.1-Tickhorothane not detected not 0.16 ug/L 0.50 ug/L 179.55-5 0.11-11 1.1-Tickhorothane not detected not 0.21 ug/L 0.50 ug/L 179.55-5 0.1-11 1.1-Tickhorothane not detected not 0.27 ug/L 0.50 ug/L 179.6-2 1.2-Dichlorushane not detected not 0.27 ug/L 0.50 ug/L 179.0-2 1.2-Dichlorushane not detected 1 0.71 ug/L 0.50 ug/L 179.0-2 1.2-Dichlorushane not detected 1 0.10 ug/L 0.50 ug/L 179.0-2 1.2-Dichlorushane not detected 1 0.16 ug/L 0.50 ug/L 179.0-2 1.2-Dichlorushane not detected 1 0.16 ug/L 0.50 ug/L 179.0-3 1.2-Dichlorushane not detected 1 0.16 ug/L 0.50 ug/L 179.0-3 1.2-Dichlorushane not detected 1 0.16 ug/L 0.50 ug/L 179.0-3 1.1-Tickhorothane not detected 1 0.16 ug/L 0.50 ug/L 179.0-5 1.2-Dichlorushane not detect	75-01-4	Vinyl Chloride			not	detected				
T5-00-3	74-83-9	Bromomethane			not	detected				
75-69-4	75-00-3	Chloroethane								
1.1-Dichloroschame	75-69-4	Trichlorofluoromethane								
Fig. 2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	75-35-4	1.1-Dichloroethene				<u> </u>			·	
75.15-0 Carbon Disulfide	67-64-1									
150-60-5 mass-1,2-Dichloroethane not detected 3 0.16 ug/L 0.50 ug/L 150-60-5 mass-1,2-Dichloroethane not detected 100 0.20 ug/L 0.50 ug/L 108-05-4 Vimyl Acetate not detected 700 0.20 ug/L 0.50 ug/L 108-05-4 Vimyl Acetate not detected 700 0.20 ug/L 0.50 ug/L 158-05-2 cis-1,2-Dichloroethane not detected 700 0.14 ug/L 0.50 ug/L 156-59-2 cis-1,2-Dichloroethane not detected 70 0.14 ug/L 0.50 ug/L 156-59-2 cis-1,2-Dichloroethane not detected 70 0.14 ug/L 0.50 ug/L 156-59-2 Carbon Terrachloride not detected 70 0.17 ug/L 0.50 ug/L 156-59-2 Carbon Terrachloride not detected 10 0.17 ug/L 0.50 ug/L 156-23-5 Carbon Terrachloride not detected 1 0.27 ug/L 0.50 ug/L 156-23-5 Carbon Terrachloride not detected 1 0.16 ug/L 0.50 ug/L 157-06-2 1,2-Dichloroethane not detected 1 0.16 ug/L 0.50 ug/L 157-06-2 1,2-Dichloroethane not detected 1 0.16 ug/L 0.50 ug/L 157-06-2 1,2-Dichloroethane not detected 1 0.16 ug/L 0.50 ug/L 157-06-2 1,2-Dichloropropane not detected 1 0.16 ug/L 0.50 ug/L 157-07-14 Biromodichloromethane not detected 1 0.16 ug/L 0.50 ug/L 157-07-15 Biromodichloromethane not detected 1 0.16 ug/L 0.50 ug/L 157-07-16 Carbon Terrachloride not detected 1 0.16 ug/L 0.50 ug/L 157-07-18 Biromodichloromethane not detected 1 0.16 ug/L 0.50 ug/L 157-07-18 Carbon Terrachloride not detected 1 0.16 ug/L 0.50 ug/L 157-07-18 Carbon Terrachloride not detected 1 0.16 ug/L 0.50 ug/L 157-07-18 Carbon Terrachloride not detected 1 0.16 ug/L 0.50 ug/L 157-07-18 Carbon Terrachloroethane not detected not detected 1 0.16 ug/L 0.50 ug/L 158-83 Toluene not detected not detected 1 0.16 ug/L 0.50 ug/L 157-18-4 Tetrachloroethane not detected not detected 1 0.18 ug/L 0.50 ug/L 157-18-4 Tetrachloroet									<u> </u>	
156-60-5									†	
108-05-4 Vimyl Acetate not detected 50 0.19 ug/L 0.50 ug/L 108-05-4 Vimyl Acetate not detected 7000 0.20 ug/L 0.50 ug/L 156-59-2 cst-12-Dichloroethene not detected 70 0.14 ug/L 0.50 ug/L 156-59-2 cst-12-Dichloroethene not detected 70 0.14 ug/L 0.50 ug/L 167-66-3 Chloroform not detected 70 0.14 ug/L 0.50 ug/L 175-55-6 1.1.1-Trichloroethane not detected 30 0.17 ug/L 0.50 ug/L 156-23-5 Carbon Tetrachloride not detected 1 0.27 ug/L 0.50 ug/L 167-60-2 Batzene not detected 1 0.16 ug/L 0.50 ug/L 107-06-2 1.2-Dichloroethane not detected 2 0.19 ug/L 0.50 ug/L 107-06-2 1.2-Dichloroethane not detected 1 0.18 ug/L 0.50 ug/L 107-06-2 1.2-Dichloroethane not detected 1 0.18 ug/L 0.50 ug/L 107-07-2 1.2-Dichloroethane not detected 1 0.18 ug/L 0.50 ug/L 107-08-2 1.2-Dichloropropane not detected 1 0.16 ug/L 0.50 ug/L 107-08-2 1.2-Dichloropropane not detected 1 0.16 ug/L 0.50 ug/L 108-10-1 4-Methyl-2-Pentanone not detected not 0.12 ug/L 0.50 ug/L 108-10-1 4-Methyl-2-Pentanone not detected not 0.16 ug/L 0.50 ug/L 108-88-3 Tollene not detected not 0.16 ug/L 0.50 ug/L 108-10-1 4-Methyl-2-Pentanone not detected not 0.16 ug/L 0.50 ug/L 108-88-3 Tollene not detected not 0.12 ug/L 0.50 ug/L 108-88-3 Tollene not detected not 0.12 ug/L 0.50 ug/L 109-10-2 1.1.2-Trichloroethane not detected not 0.12 ug/L 0.50 ug/L 109-10-3 1.1.2-Trichloroethane not detected not 0.12 ug/L 0.50 ug/L 109-10-3 1.1.2-Trichloroethane not detected not 0.12 ug/L 0.50 ug/L 109-10-3 1.1.2-Trichloroethane not detected not 0.12 ug/L 0.50 ug/L 100-41-4 Eluylbenizee not detected not 0.12 ug/L 0.50 ug/L 100-41-4 Eluylbenizee not detected not 0.12 ug/L 0.50 ug/L 100-41-3 Eluylbenizee not										
108-05-4										
78-93-3 2-Butanene				***************************************					†	
156-59-2 cis-1,2-Diciltoroethene not detected 70 0.14 ug/L 0.50 ug/L										
67-66-3 Chloroform									***************************************	
75-55-6										
S6-23-5 Carbon Tetrachloride		·· ·								
71-43-2 Benzene										
107-06-2	······									
Trichloroethene									·	
78-87-5 1,2-Dichloropropane not detected 1 0.16 ug/L 0.50 ug/L 75-27-4 Bromodichloromethane not detected 1 0.14 ug/L 0.50 ug/L 110-75-8 2-Chloroethyl vinyl ether not detected nle 0.25 ug/L 0.50 ug/L 10061-01-5 cis-13-Dichloropropene not detected 1 0.16 ug/L 0.50 ug/L 108-10-1 4-Methyl-2-Pentanone not detected nle 0.26 ug/L 0.50 ug/L 108-88-3 Toluene not detected 1000 0.15 ug/L 0.50 ug/L 1061-02-6 trans-1,3-Dichloropropene not detected 1 0.12 ug/L 0.50 ug/L 127-18-4 Tetrachloroethane not detected 3 0.14 ug/L 0.50 ug/L 591-78-6 2-Hexanone not detected nle 0.20 ug/L 0.50 ug/L 108-90-7 Chlorobenzene not detected 1 0.14 ug/L 0.50 ug/L 100-41-4 Ethylbenzene not detected 5 0.15 ug/L 0.50 ug/L <		_ 								
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10061-02-6 trans-1,3-Dichloropropene not detected 1 0.12 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 0.18 ug/L 0.50 ug/L 591-78-6 2-Hexanone not detected nle 0.20 ug/L 0.50 ug/L 126-48-1 Dibromochloromethane not detected 1 0.14 ug/L 0.50 ug/L 108-90-7 Chlorobenzene not detected 50 0.15 ug/L 0.50 ug/L 100-41-4 Ethylbenzene not detected 700 0.16 ug/L 0.50 ug/L 630-20-6 1,1,1,2-tetrachloroethane not detected 1 0.15 ppb 0.50 ppb 1330-20-7 m+y-Xylenes not detected nle 0.27 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 0.12 ug/L 0.50 ug/L 79-34-5 1,1,2,2-Tetrachloroethane not detected 1 0.12 ug/L 0.50 ug/L 541-73-1										
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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 0.12 ug/L 0.50 ug/L 541-73-1 1,3-Dichlorobenzene not detected 600 0.12 ug/L 0.50 ug/L 106-46-7 1,4-Dichlorobenzene not detected 75 0.12 ug/L 0.50 ug/L										
79-34-5 1,1,2,2-Tetrachloroethane not detected 1 0.12 ug/L 0.50 ug/L 541-73-1 1,3-Dichlorobenzene not detected 600 0.12 ug/L 0.50 ug/L 106-46-7 1,4-Dichlorobenzene not detected 75 0.12 ug/L 0.50 ug/L					-					
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106-46-7 1,4-Dichlorobenzene not detected 75 0.12 ug/L 0.50 ug/L										
		·								·····

^{*}Results between MDL and RL are estimated values

Qualifiers

 $B = Compound found in related blank \\ E = Value above linear range \\ D = Value from dilution \\ PQL = Practical Quantitation Limit \\ R.L. = Reporting Limit \\ R.L. = Reporting Limit$

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

287 DUP Lab Name: FMETL Contract: SAS No.: Lab Code: Case No.: MW SDG No.: 90231 13461 Matrix: (soil/water) WATER Lab Sample ID: 9023103 Sample wt/vol: Lab File ID: VA3784.D 5.0 (g/ml) ML Level: (low/med) LOW Date Received: 6/11/2009 % Moisture: not dec. Date Analyzed: 6/15/2009 GC Column: RTX-VM ID: 0.25 Dilution Factor: 1.0 (mm) Soil Aliquot Volume: (uL) Soil Extract Volume: (uL) **CONCENTRATION UNITS:** (ug/L or ug/Kg) UG/L Number TICs found:

RT

EST. CONC.

Q

COMPOUND NAME

CAS NO.

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

 Data File
 VA3785.D
 Sample Name
 9023104

 Operator
 ROBERTS
 Field ID
 287 MW#01

Date Acquired 15 Jun 2009 11:10 pm Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not	detected	5	2.09 ug/L		I
107131	Acrylonitrile			·····	detected	2	1.64 ug/L		
75650	tert-Butyl alcohol	, , , , , , , , , , , , , , , , , , , ,		not	detected	100	1.89 ug/L		
1634044	Methyl-tert-Butyl ether	***************************************			detected	70	0.18 ug/L		
108203	Di-isopropyl ether				detected	20000	0.12 ug/L		
75718	Dichlorodifluoromethane				detected	1000	0.22 ug/L		
74-87-3	Chloromethane	***************************************			detected	nle	0.10 ug/L		
75-01-4	Vinyl Chloride				detected	1	0.22 ug/L	0.50 ug/L	
74-83-9	Bromomethane				detected	10	0.25 ug/L		
75-00-3	Chloroethane				detected	nle	0.22 ug/L	0.50 ug/L	
75-69-4	Trichlorofluoromethane				detected	2000	0.18 ug/L		
75-35-4	1,1-Dichloroethene				detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone				detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide				detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride				detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene				detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane				detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate				detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone				detected	300	0.16 ug/L	0.50 ug/L	
156-59-2	cis-1,2-Dichloroethene				detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform				detected	70	0.14 ug/L 0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride				detected	30	0.17 ug/L 0.27 ug/L	0.50 ug/L	
71-43-2	Benzene				detected		0.27 ug/L 0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane				detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene				detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane				detected		0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane				detected		0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether				detected	nle	0.14 ug/L 0.25 ug/L	0.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene				detected	nie j	0.25 ug/L 0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone				detected	nle	0.16 ug/L 0.26 ug/L	0.50 ug/L	
108-88-3	Toluene Toluene				detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene				detected	1000	0.13 ug/L 0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.14 ug/L	0.50 ug/L	~~~
127-18-4	Tetrachloroethene				detected	1	0.14 ug/L	0.50 ug/L	
591-78-6	2-Hexanone				detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane				detected	nie	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene				detected	50	0.14/ug/L 0.15/ug/L	0.50 ug/L	
100-41-4					detected	700	0.15 ug/L 0.16 ug/L	0.50 ug/L	
630-20-6	Ethylbenzene 1,1,1,2-tetrachloroethane				detected	1	0.15 ppb	0.50 ug/L	
1330-20-7					detected		0.13 pp0	1.00 ug/L	
1330-20-7	m+p-Xylenes o-Xylene				detected	nle	0.27 ug/L 0.14 ug/L	0.50 ug/L	
100-42-5					detected detected	nle	0.14 ug/L 0.12 ug/L	0.50 ug/L	
75-25-2	Styrene					100	0.12 ug/L 0.14 ug/L		
	Bromoform				detected detected	4	0.14 ug/L 0.12 ug/L	0.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane				detected	1 1		0.50 ug/L	
541-73-1	1,3-Dichlorobenzene				detected detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene				detected	75	0,12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.12 ug/L	0.50 ug/L	

^{*}Results between MDL and RL are estimated values

Qualifiers

 $B = Compound found in related blank \\ E = Value above linear range \\ D = Value from dilution \\ PQL = Practical Quantitation Limit \\ R.L. = Reporting Limit \\ R.L. = Reporting Limit$



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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

287 MW#01

Lab Name:	FMETL			Contract:			
Lab Code:	13461	The state of the s	Case No.: MV	SAS No).:	SDG No.: 90231	
Matrix: (soil/v	vater)	WATER	2	La	b Sample ID	9023104	
Sample wt/vo	ol:	5.0	(g/ml) ML	La	b File ID:	VA3785.D	-
Level: (low/r	ned)	LOW		Da	ite Received	: 6/11/2009	
% Moisture:	not dec.			Da	ite Analyzed:	: 6/15/2009	
GC Column:	RTX-V	/M ID:	0.25 (mm)	Dil	ution Factor:	1.0	enem
Soil Extract \	/olume:		(uL)	So	il Aliquot Vol	lume:	(uL)
				CONCENTRA	TION UNITS	:	
Number TICs	s found:	0		(ug/L or ug/Kg)	UG/L		
CAS NO.		COMP	OUND NAME		RT E	EST. CONC.	Q

SEMI-VOLATILE ORGANICS

Semi-Volatile Analysis Report

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

Data File NameD926.DSample NameMB06220901 B/NOperatorROBERTSMisc InfoMETHOD 625 7/7/09

Date Acquired 9-Jul-09 Sample Multiplier 1

Regul	latory
Le	vel

					Level				
CAS#	Name	R.T.	Response	Result	(ug/L)*	MDL	RL		Qualifie
110-86-1	Pyridine	_		not detected	NLE	1.56	5.00	ug/L	ļ
62-75-9	N-nitroso-dimethylamine			not detected	0.8	3.57	5.00	ug/L	
62-53-3	Aniline			not detected	6	2.75	5.00	ug/L	
108-95-2	Phenol			not detected	2000	0.81	5.00	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	3.23	5.00	ug/L	
95-57-8	2-Chlorophenol			not detected	40	1.80	5.00	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.97	5.00	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	3.05	5.00	ug/L	
100-51-6	Benzyl alcohol			not detected	2000	1.49	5,00	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.92	5.00	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.55	5.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	2.67	5.00	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.64	5.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	2.61	5.00		
67-72-1	Hexachloroethane			not detected	7	2.75	5.00		
98-95-3	Nitrobenzene			not detected	6	2.91	5.00		
78-59-1	Isophorone			not detected	40	2.93	5.00	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	2.06	5.00		
105-67-9	2,4-Dimethylphenol			not detected	100	1.97	5.00		 .
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.74	5.00		
120-83-2	2,4-Dichlorophenol			not detected	20	2,11	5.00		
65-85-0	Benzoic Acid			not detected	30000	5.27	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.99	5.00		
91-20-3	Naphthalene			not detected	300	3.06	5.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	3.72	5.00		
87-68-3	Hexachlorobutadiene			not detected	1	3.07	5.00	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	2.36	5.00		
91-57-6	2-Methylnaphthalene			not detected	NLE	3.35	5,00		
77-47-4	Hexachlorocyclopentadiene			not detected	40	2.07	10.00		
88-06-2	2,4,6-Trichlorophenol			not detected	20	2.95	5.00		
95-95-4	2,4,5-Trichlorophenol			not detected	700	3.36	5.00		
91-58-7	2-Chloronaphthalene			not detected	600	3.99	5.00 t		
88-74-4	2-Nitroaniline			not detected	NLE	3.46	5.00 t		
131-11-3	Dimethylphthalate			not detected	NLE	3.26	5.00 ι		
208-96-8	Acenaphthylene			not detected	NLE	3.46	5.00 t		
606-20-2	2,6-Dinitrotoluene			not detected	10	3.47	5.00 t		
99-09-2	3-Nitroaniline			not detected	NLE	4.12	5.00 t		
83-32-9	Acenaphthene	1 1		not detected	400	3.58	5.00 u		
51-28-5	2,4-Dinitrophenol	1 1		not detected	40	4.02	10.00 t		
132-64-9	Dibenzofuran			not detected	NLE	2.94	5.00 t		
100-02-7	4-Nitrophenol			not detected	NLE	1.14	5.00 t		

Page 1 of 2

Semi-Volatile Analysis Report Page 2

Data File Name D926.D MB06220901 B/N Sample Name ROBERTS Operator Misc Info METHOD 625 7/7/09

Date Acquired 9-Jul-09 Sample Multiplier 1

Regulatory Level (ug/L)* CAS# Name R.T. Response Result MDL RL Qualifier 121-14-2 2,4-Dinitrotoluene 5.00 ug/L not detected 3.47 84-66-2 5.00 ug/L Diethylphthalate 6000 3.54 not detected 86-73-7 Fluorene not detected 300 3.64 5.00 ug/L 7005-72-3 4-Chlorophenyl-phenylether not detected NLE 3.74 5.00 ug/L 5.00 ug/L 100-01-6 2.92 4-Nitroaniline not detected **NLE** 534-52-1 4,6-Dinitro-2-methylphenol not detected NLE 2.22 5.00 ug/L 86-30-6 10 3.49 5.00 ug/L n-Nitrosodiphenylamine not detected 103-33-3 3.43 5.00 ug/L Azobenzene not detected NLE 101-55-3 4-Bromophenyl-phenylether NLE 3.98 5.00 ug/L not detected 5.00 ug/L 118-74-1 Hexachlorobenzene not detected 0.02 3.73 87-86-5 Pentachlorophenol 0.3 2.70 5.00 ug/L not detected 5.00 ug/L 85-01-8 Phenanthrene not detected NLE 3.42 3.27 5.00 ug/L 120-12-7 Anthracene not detected 2000 84-74-2 5.00 ug/L Di-n-butylphthalate not detected 700 2.83 206-44-0 Fluoranthene 300 3.08 5.00 ug/L not detected 92-87-5 16.11 5.00 ug/L Benzidine not detected 20 129-00-0 Pyrene not detected 200 2.59 5.00 ug/L 85-68-7 2.57 5.00 ug/L Butylbenzylphthalate 100 not detected 56-55-3 Benzo[a]anthracene not detected 0.1 2.71 5.00 ug/L 91-94-1 3,3'-Dichlorobenzidine 30 11.62 5.00 ug/L not detected 218-01-9 2.47 5.00 ug/L Chrysene not detected 5 117-81-7 bis(2-Ethylhexyl)phthalate not detected 3.74 5.00 ug/L 3 117-84-0 Di-n-octylphthalate 100 2.41 5.00 ug/L not detected 205-99-2 0.2 2.28 5.00 ug/L Benzo[b]fluoranthene not detected 207-08-9 0.5 2.56 5.00 ug/L Benzo[k]fluoranthene not detected 50-32-8 5.00 ug/L Benzo[a]pyrene not detected 0.1 2.60 193-39-5 Indeno[1,2,3-cd]pyrene not detected 0.2 2.67 5.00 ug/L 53-70-3 0.3 2.68 5.00 Dibenz[a,h]anthracene not detected ug/L 191-24-2 5.00 ug/L

Qualifiers

not detected

NLE

E= Value Exceeds Linear Range MDL= Method Detection Limit D= Value from dilution NLE= No Limit Established B= Compound in Related Blank R.T.=Retention Time

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

Benzo[g,h,i]perylene

Page 2 of 2

3.16

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: MB06220901

Lab Name: FMETL	-		Lab Code 1346	1		
Project:	(Case No.: 90251	Location:	S	DG No.:	
Matrix: (soil/water)	WATER	10 11/A 144444	Lab Sam	ple ID:	MB0622090	1 B/N
Sample wt/vol:	1000	(g/ml) ML	Lab File I	D:	D926.D	
Level: (low/med)	LOW	and opposed the	Date Rec	eived:	6/15/2009	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
% Moisture:	de	ecanted: (Y/N)	N Date Extr	acted:	6/22/2009	
Concentrated Extract	Volume:	1000 (uL)	Date Ana	lyzed:	7/9/2009	
Injection Volume: 1.	0 (uL)		Dilution F	actor:	1.0	
GPC Cleanup: (Y/N)	<u>N</u>	pH:				
			CONCENTRATIO	N UNI	TS:	
Number TICs found:	1		(ug/L or ug/Kg)	UG/I		
CAS NUMBER	COMPO	OUND NAME	RT	ES	T. CONC.	Q
1. 000123-42-2	2-Pentar	none. 4-hvdroxv-4-	methyl 7.12	2	7	JN

Semi-Volatile Analysis Report

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

Data File Name **D930.D**

Date Acquired

Sample Name

9024401 B/N

Operator

ROBERTS 9-Jul-09

Misc Info

287 FIELD BLANK

Sample Multiplier 1

Regulatory

0.0"	N	D (D		n . t.	Level (ug/L)*		ъ.		
CAS#	Name	R.T.	Response	Result	I	MDL	RL	1	Qualifier
110-86-1	Pyridine			not detected	NLE	1.56	5.00	1	
62-75-9	N-nitroso-dimethylamine			not detected	0.8	3.57		ug/L	
62-53-3	Aniline			not detected	6	2.75		ug/L	
108-95-2	Phenol			not detected	2000	0.81		ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	3,23		ug/L	
95-57-8	2-Chlorophenol			not detected	40	1.80		ug/L	
541-73-1	1,3-Dichlorobenzene	_		not detected	600	2.97		ug/L	
106-46-7	1,4-Dichlorobenzene	_		not detected	75	3.05	5.00	ug/L	
100-51-6	Benzyl alcohol			not detected	2000	1.49		ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.92	5.00	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.55	5.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether	ļ		not detected	300	2.67	5.00	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.64	5.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	2.61	5.00	ug/L	
67-72-1	Hexachloroethane			not detected	7	2.75	5.00	ug/L	
98-95-3	Nitrobenzene			not_detected	6	2.91	5.00	ug/L	
78-59-1	lsophorone			not detected	40	2.93	5.00	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	2.06	5.00	ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	1.97	5.00	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.74	5.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	2.11	5.00	ug/L	
65-85-0	Benzoic Acid			not detected	30000	5.27	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.99	5.00	ug/L	
91-20-3	Naphthalene			not detected	300	3.06	5.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	3.72	5.00	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	3.07	5.00	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	2.36	5.00	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	3.35	5.00	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	40	2.07	10.00	ug/L	
88-06-2	2,4,6-Trichlorophenol			not detected	20	2.95	5.00	ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	3.36	5.00	ug/L	
91-58-7	2-Chloronaphthalene			not detected	600	3.99	5.00		
88-74-4	2-Nitroaniline			not detected	NLE	3.46	5.00		
131-11-3	Dimethylphthalate			not detected	NLE	3.26	5.00		
208-96-8	Acenaphthylene			not detected	NLE	3.46	5.00		
606-20-2	2,6-Dinitrotoluene			not detected	10	3.47	5.00		
99-09-2	3-Nitroaniline			not detected	NLE	4.12	5.00		
83-32-9	Acenaphthene			not detected	400	3.58	5.00		
51-28-5	2,4-Dinitrophenol			not detected	40	4.02	10.00		
132-64-9	Dibenzofuran	1		not detected	NLE	2.94	5.00		
100-02-7	4-Nitrophenol	1	· · · · · · · · · · · · · · · · · · ·	not detected	NLE	1.14	5.00		

Semi-Volatile Analysis Report Page 2

Data File Name **D930.D**

Sample Name

9024401 B/N

Operator

Date Acquired

ROBERTS

9-Jul-09

Misc Info

287 FIELD BLANK

Sample Multiplier 1

Regulatory Level

CAS#	Name	R.T.	Response	Result	(ug/L)*	MDL	RL		Qualifier
121-14-2	2,4-Dinitrotoluene			not detected	10	3.47	5.00	ug/L	
84-66-2	Diethylphthalate			not detected	6000	3.54	5.00	ug/L	
86-73-7	Fluorene			not detected	300	3.64	5.00	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	3.74	5.00	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.92	5.00	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol		****	not detected	NLE	2.22	5.00	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	10	3.49	5.00	ug/L	
103-33-3	Azobenzene			not detected	NLE	3.43	5.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	3.98	5.00	ug/L	
118-74-1	Hexachlorobenzene			not detected	0.02	3.73	5.00	ug/L	
87-86-5	Pentachlorophenol			not detected	0.3	2.70	5.00	ug/L	
85-01-8	Phenanthrene			not detected	NLE	3.42	5.00	ug/L	
120-12-7	Anthracene			not detected	2000	3.27	5.00	ug/L	
84-74-2	Di-n-butylphthalate			not detected	700	2.83	5.00	ug/L	
206-44-0	Fluoranthene			not detected	300	3.08	5.00	ug/L	
92-87-5	Benzidine			not_detected	20	16.11	5.00	ug/L	
129-00-0	Pyrene			not detected	200	2.59	5.00	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	2.57	5.00	ug/L	
56-55-3	Benzo[a]anthracene			not detected	0.1	2.71	5.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	30	11.62	5.00	ug/L	
218-01-9	Chrysene			not detected	5	2.47	5.00	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	3	3.74	5.00	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	2.41	5.00	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	0.2	2.28	5.00	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	0.5	2.56	5.00	ug/L	
50-32-8	Benzo[a]pyrene			not detected	0.1	2.60	5.00	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not_detected	0.2	2.67	5.00	ug/L	
53-70-3	Dibenz[a,h]anthracene			not_detected	0.3	2.68	5.00	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	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

MDL= Method Detection Limit

D= Value from dilution

NLE= No Limit Established

B= Compound in Related Blank

R.T.=Retention Time

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

Page 2 of 2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Fiel	d ld:		۲		
287	FIFI	ח	RI	ΔΝΙ	k

Lab Name: FMETL			Lab Co	de 13461		L	
Project:		Case No.: 90251	Loca	tion:	SD	G No.:	** A second of the second of t
Matrix: (soil/water)	WATER			Lab Sample	ID: §	9024401 B/I	V
Sample wt/vol:	1000	(g/ml) ML	·······idaanalallad	Lab File ID:]	D930.D	
Level: (low/med)	LOW			Date Receiv	ed: 6	6/15/2009	
% Moisture:	de	ecanted: (Y/N)	N	Date Extract	ed: 6	6/22/2009	
Concentrated Extract	Volume:	1000 (uL)		Date Analyze	ed: _7	7/9/2009	
Injection Volume: 1.	0 (uL)			Dilution Fact	or:	1.0	ANALYSIS STORY
GPC Cleanup: (Y/N)	N	pH:					
			CONCE	NTRATION	TINL:	S:	
Number TICs found:	1		(ug/L or	ug/Kg)	JG/L		
CAS NUMBER	COMPO	DUND NAME		RT	EST	CONC.	Q
1. 000123-42-2	2-Pentar	none, 4-hvdroxv-4-	-methyl	7.12		7	JN

Semi-Volatile Analysis Report

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

Data File Name **D934.D**

Date Acquired 9-Jul-09

Sample Name 9024403 B/N

Operator

ROBERTS

Misc Info 287 DUP

Sample Multiplier 1

Regulatory Level

					Level				
CAS#	Name	R.T.	Response	Result	(ug/L)*	MDL	RL	γ	Qualifie
110-86-1	Pyridine			not detected	NLE	1.56	5.00	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	0.8	3.57	5.00	ug/L	
62-53-3	Aniline			not detected	- 6	2.75	5.00	ug/L	
108-95-2	Phenol			not detected	2000	0.81	5.00	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	3.23	5.00	ug/L	
95-57-8	2-Chlorophenol			not detected	40	. 1.80	5.00	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.97	5.00	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	3.05	5.00	ug/L	
100-51-6	Benzyl alcohol			not detected	2000	1.49	5.00	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.92	5.00	ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.55	5.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	2.67	5.00	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1,64	5.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	2.61	5.00	ug/L	
67-72-1	Hexachloroethane			not detected	7	2.75	5.00	ug/L	
98-95-3	Nitrobenzene			not detected	6	2.91	5.00	ug/L	
78-59-1	Isophorone			not detected	40	2.93	5.00	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	2.06		ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	1.97	5.00	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.74	5.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	2.11	5.00	ug/L	
65-85-0	Benzoic Acid			not detected	30000	5.27	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.99	5.00	ug/L	
91-20-3	Naphthalene			not detected	300	3.06	5.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	3.72	5.00	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	3.07	5.00	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	2.36	5.00	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	3.35	5.00	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	40	2.07	10.00	ug/L	
88-06-2	2,4,6-Trichlorophenol			not detected	20	2.95	5.00	ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	3.36	5.00	ug/L	
91-58-7	2-Chloronaphthalene			not detected	600	3.99	5.00	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	3.46	5.00	ug/L_	
131-11-3	Dimethylphthalate			not detected	NLE	3.26	5.00	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	3.46	5.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	10	3.47	5.00		
99-09-2	3-Nitroaniline			not detected	NLE	4.12	5.00		
83-32-9	Acenaphthene			not detected	400	3,58	5.00		~
51-28-5	2,4-Dinitrophenol			not detected	40	4.02	10.00		
132-64-9	Dibenzofuran			not detected	NLE	2.94	5.00		
100-02-7	4-Nitrophenol			not detected	NLE	1.14	5.00		

Semi-Volatile Analysis Report Page 2

Data File Name **D934.D**

Sample Name

9024403 B/N

Operator

191-24-2

ROBERTS

Misc Info

287 DUP

Date Acquired

9-Jul-09

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	RL		Qualifier
121-14-2	2,4-Dinitrotoluene			not detected	10	3.47	5.00	ug/L	
84-66-2	Diethylphthalate			not detected	6000	3.54	5.00	ug/L	
86-73-7	Fluorene			not detected	300	3.64	5.00	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	3.74	5.00	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.92	5.00	ug/L	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	2.22	5.00	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	10	3.49	5.00	ug/L	
103- <u>33</u> -3	Azobenzene			not detected	NLE	3.43	5.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	3.98	5.00	ug/L	
118-74-1	Hexachlorobenzene			not detected	0.02	3.73	5.00	ug/L	
87-86-5	Pentachlorophenol			not detected	0.3	2.70	5.00	ug/L	
85-01-8	Phenanthrene			not detected	NLE	3.42	5.00	ug/L	
120-12-7	Anthracene			not detected	2000	3.27	5.00	ug/L	
84-74-2	Di-n-butylphthalate			not detected	700	2.83	5.00	ug/L	
206-44-0	Fluoranthene			not detected	300	3.08	5.00	ug/L	
92-87-5	Benzidine			not detected	20	16.11	5.00	ug/L	
129-00-0	Pyrene			not detected	200	2.59	5.00	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	2.57	5.00	ug/L	
56-55-3	Benzo[a]anthracene			not detected	0.1	2.71	5.00	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not_detected	30	11.62	5.00	ug/L	
218-01-9	Chrysene			not detected	5	2.47	5.00	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	3	3.74	5.00	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	2.41	5.00	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	0.2	2.28	5.00	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	0.5	2.56	5.00	ug/L	
50-32-8	Benzo[a]pyrene			not_detected	0.1	2.60	5.00	ug/L	<u> </u>
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	0.2	2.67	5.00	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	0.3	2.68	5.00	ug/L	
	I .			1 '					

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

Qualifiers

E= Value Exceeds Linear Range

MDL= Method Detection Limit

D= Value from dilution

Benzo[g,h,i]perylene

NLE= No Limit Established

B= Compound in Related Blank

R.T.=Retention Time

not detected

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

Page 2 of 2

5.00 ug/L

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Field Id:	
007.0110	_

Lab Name: FMETI			Lab Co	de <u>13461</u>		201 0	0.
Project:	Ca	ase No.: 90251	Loca	tion:	SE	G No.:	
Matrix: (soil/water)	WATER			Lab Sampl	e ID:	9024403 B/N	1
Sample wt/vol:	1000	(g/ml) ML		Lab File ID		D934.D	resource was and his dish dish.
Level: (low/med)	LOW			Date Rece	ved:	6/15/2009	
% Moisture:	ded	canted: (Y/N)	N	Date Extra	cted: (6/22/2009	
Concentrated Extrac	t Volume:	1000 (uL)		Date Analy	zed:	7/9/2009	
Injection Volume: 1	.0 (uL)			Dilution Fa	ctor:	1.0	
GPC Cleanup: (Y/N)	N	pH:					
			CONCE	NTRATION	I UNIT	S:	
Number TICs found:	2		(ug/L or	ug/Kg)	UG/L		
CAS NUMBER	COMPO	UND NAME		RT	EST	Γ. CONC.	Q
1. 000123-42-2	2-Pentand	one, 4-hydroxy-4-	methyl	7.12		7	JN
2.	unknown			26.05		11	J

Semi-Volatile Analysis Report

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

Data File Name **D943.D**

Sample Name

9024402 B/N

Operator

ROBERTS

Misc Info

287 MW#01

Date Acquired 9-Jul-09

Sample Multiplier 1

CASU.	N	n m	D	n k	Regulatory Level (ug/L)*	MDI	D.F.		6
CAS#	Name In the	R.T.	Response	Result	T	MDL	RL	Τ ,,	Qualifier
110-86-1	Pyridine	 	**************************************	not detected	NLE	1.56	5.00	1	<u> </u>
62-75-9	N-nitroso-dimethylamine			not detected	0.8	3.57		ug/L	
62-53-3	Aniline	-	· · · · · · · · · · · · · · · · · · ·	not detected	6	2.75		ug/L	
108-95-2	Phenol			not detected	2000	0.81		ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	7	3.23		ug/L	
95-57-8	2-Chlorophenol			not detected	40	1.80		ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.97		ug/L	
106-46-7	1,4-Dichlorobenzene	-		not detected	75	3.05		ug/L	
100-51-6	Benzyl alcohol	 		not detected	2000	1.49		ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.92		ug/L	
95-48-7	2-Methylphenol			not detected	NLE	1.55	5.00	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	2.67	5.00	ug/L	
106-44-5	4-Methylphenol			not detected	NLE	1.64	5.00	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	10	2.61	5.00	ug/L	
67-72-1	Hexachloroethane			not detected	7	2.75	5.00	ug/L	
98-95-3	Nitrobenzene			not detected	6	2.91	5.00	ug/L	
78-59-1	Isophorone			not detected	40	2.93	5.00	ug/L	
88-75-5	2-Nitrophenol			not detected	NLE	2.06	5.00	ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	1.97	5.00	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.74	5.00	ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	2.11	5.00	ug/L	
65-85-0	Benzoic Acid			not detected	30000	5.27	10.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.99	5.00	ug/L	
91-20-3	Naphthalene			not detected	300	3.06	5.00	ug/L	
106-47-8	4-Chloroaniline			not detected	30	3.72	5.00	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	3.07	5.00	ug/L	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	2.36	5.00	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	3.35	5.00	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	40	2.07	10.00		
88-06-2	2,4,6-Trichlorophenol			not detected	20	2.95	5.00		
95-95-4	2,4,5-Trichlorophenol			not detected	700	3.36	5.00	ug/L	
91-58-7	2-Chloronaphthalene			not detected	600	3.99	5.00		
88-74-4	2-Nitroaniline			not detected	NLE	3.46	5.00		
131-11-3	Dimethylphthalate			not detected	NLE	3.26	5.00		
208-96-8	Acenaphthylene			not detected	NLE	3.46	5.00		[
606-20-2	2,6-Dinitrotoluene			not detected	10	3.47	5.00		
99-09-2	3-Nitroaniline			not detected	NLE	4.12	5.00		
83-32-9	Acenaphthene			not detected	400	3.58	5.00		
51-28-5	2,4-Dinitrophenol		***************************************	not detected	40	4.02	10.00		
132-64-9	Dibenzofuran			not detected	NLE	2.94	5.00		
100-02-7	4-Nitrophenol		······································	not detected	NLE	1.14	5.00		

Semi-Volatile Analysis Report Page 2

Data File Name D943.D Sample Name 9024402 B/N Operator ROBERTS Misc Info 287 MW#01

Date Acquired 9-Jul-09 Sample Multiplier 1

Regulatory Level (ug/L)* CAS# R.T. Result MDL Response RL Name Qualifier 121-14-2 2,4-Dinitrotoluene not detected 10 3.47 5.00 ug/L 5.00 ug/L 84-66-2 Diethylphthalate not detected 6000 3.54 86-73-7 3.64 5.00 ug/L not detected 300 Fluorene 3.74 7005-72-3 5.00 ug/L 4-Chlorophenyl-phenylether not detected **NLE** 100-01-6 4-Nitroaniline not detected 2.92 5.00 ug/L NIE 534-52-1 NLE 2.22 5.00 ug/L 4,6-Dinitro-2-methylphenol not detected 3.49 5.00 ug/L 86-30-6 n-Nitrosodiphenylamine not detected 10 103-33-3 5.00 ug/L 3.43 Azobenzene not detected **NLE** 101-55-3 4-Bromophenyl-phenylether not detected NLE 3.98 5.00 ug/L 118-74-1 0.02 3.73 5.00 ug/L Hexachlorobenzene not detected 2.70 5.00 ug/L 87-86-5 Pentachlorophenol not detected 0.3 85-01-8 Phenanthrene NLE 3.42 5.00 ug/L not detected 3.27 2000 5.00 ug/L 120-12-7 Anthracene not detected 84-74-2 Di-n-butylphthalate 700 2.83 5.00 ug/L not detected 5.00 ug/L 206-44-0 Fluoranthene 300 3.08 not detected 5.00 ug/L 92-87-5 Benzidine 20 16.11 not detected 129-00-0 2.59 5.00 ug/L Pyrene not detected 200 2.57 85-68-7 not detected 5.00 ug/L Butylbenzylphthalate 100 2.71 5.00 ug/L 56-55-3 Benzo[a]anthracene not detected 0.1 91-94-1 5.00 ug/L 30 11.62 3,3'-Dichlorobenzidine not detected 5.00 ug/L 218-01-9 Chrysene 5 2.47 not detected 117-81-7 bis(2-Ethylhexyl)phthalate not detected 3 3.74 5.00 ug/L 2.41 5.00 117-84-0 Di-n-octylphthalate not detected 100 ug/L 2.28 205-99-2 Benzo[b]fluoranthene not detected 0.2 5.00 ug/L 207-08-9 0.5 2.56 5.00 ug/L Benzo[k]fluoranthene not detected 50-32-8 0.1 2.60 5.00 ug/L Benzo[a]pyrene not detected 193-39-5 Indeno[1,2,3-cd]pyrene not detected 0.2 2.67 5.00 ug/L 53-70-3 Dibenz[a,h]anthracene not detected 0.3 2.68 5.00 ug/L

Qualifiers

not detected

NLE

E= Value Exceeds Linear Range MDL= Method Detection Limit
D= Value from dilution NLE= No Limit Established
B= Compound in Related Blank R.T.=Retention Time

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

191-24-2

Benzo[g,h,i]perylene

Page 2 of 2

3.16

5.00 ug/L

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

287 MW#01 Lab Name: **FMETL** Lab Code 13461 Project: Case No.: 90251 Location: SDG No.: Matrix: (soil/water) **WATER** Lab Sample ID: 9024402 B/N 1000 Lab File ID: Sample wt/vol: (g/ml) ML D943.D Level: (low/med) LOW Date Received: 6/15/2009 % Moisture: decanted: (Y/N) Ν Date Extracted: 6/22/2009 Concentrated Extract Volume: 1000 Date Analyzed: 7/9/2009 (uL) Injection Volume: 1.0 Dilution Factor: 1.0 (uL) GPC Cleanup: (Y/N) pH: Ν **CONCENTRATION UNITS:** Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl	7.12	7	JN
2.	unknown	26.04	12	J

METALS

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 #: 90231

Sample Received: 06/11/09 Analysis Start: 06/19/09

Analysis Completed: 06/19/09

Site:

Ft. Monmouth

287 Wells

Matrix: AQ

Method of Analysis:

Std Methods 18^{th} , Method 3120B

Method of Digestion:

E.P.A SW-846, Method 3010A

TEST PARAMETER: Lead

Laboratory ID	Sample Location	Result (ug/L)	GW Criteria	MDL (ug/L)	RL (ug/L)
	Identification		(ug/L)*		
9023102	287 Field Blank	ND	5.0	0.700	5.00
9023103	287 DUP.	ND	5.0	0.700	5.00
9023104	287 MW01	ND	5.0	0.700	5.00
Method Blank	Method Blank	ND	5.0	0.700	5.00

Estimated results between MDL & R.L

ND = Not Detected, NA = Not Applicable

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9c 11/07/05 RL = Reporting Limit.

LTM

	Lab	Acenaph- thene	Fluorene	Phenan- threne	Lead	Benzoic acid	cis-1,2-Di chloro ethene	Depth	Notes	SOURCE: MW1 Sampling Dates:
Units:		ug/L	ua/L	ug/L	ug/L	ua/L	ug/L	ft		11/09/1994 - 06/11/2009
NJDEP Crtria	 :	400	300	NLE	<u>ug,</u> 5	30000	70			NOTES:
11/09/1994	Nytest	2	2	1					A	VOCs & semi-VOCs analyzed.
12/01/1994	Nytest	1 1	2	3					В	•
02/23/2004	FMETL	ND	ND	ND	ND	72.15	ND	2.77	V,S,Pb,T	A - Dimethylphthalate in Trip /
05/25/2004	FMETL	1.06	1.44	0.97	10.9	ND	ND	2.99	V,S,Pb,T	Field blanks.
08/05/2004	FMETL	ND	ND	ND	ND	ND	0.76	4.84	V,S,Pb,T	B - Di-n-butylphthalate in Trip /
10/21/2004	FMETL	ND	ND	ND	ND	ND	ND	2.95	V,S,Pb,T	. Field blanks.
11/19/2004	FMETL	ND	ND	ND	ND	ND	ND	2.38	V,S,Pb,T	
02/18/2005	FMETL	ND	ND	ND	ND	ND	ND	1.11	V,S,Pb,T	
06/10/2005	FMETL	ND	0.84	ND	ND	ND	ND	2.38	V,S,Pb,T	
09/29/2005	FMETL	1.29	2.31	1.58	ND	ND	0.50	5.71	V,S,Pb,T	
12/05/2005	FMETL	ND	ND	ND	ND	ND	ND	1.86	V,S,Pb,T	
02/17/2006	FMETL	ND	ND	ND	ND	ND	ND	1.11	V,S,Pb,T	
06/30/2006	FMETL	ND	ND	ND	ND	ND	ND	2.37	V,S,Pb,T	
09/29/2006	FMETL	ND	ND	ND	ND	ND	ND	2.78	V,S,Pb,T	
12/28/2006	FMETL	ND	ND	ND	ND	ND	ND	1.91	V,S,Pb,T	
03/14/2007	FMETL	ND	ND	ND	ND	ND	ND	2.40	V,S,Pb	
05/31/2007	FMETL	ND	ND	ND	ND	ND	ND	3.38	V,S,Pb,T	
09/17/2007	FMETL	ND	ND	ND	ND	ND	ND	3.45	V,S,Pb,T	
12/20/2007	FMETL	ND	ND	ND	ND	ND	ND	1.91	 V,S,Pb,T	
03/31/2008	FMETL	ND	ND	ND	ND	ND	ND	2.50	V,S,Pb	
06/27/2008	FMETL	ND	ND	ND	ND	ND	ND	3.05	V,S,Pb	
09/25/2008	FMETL	ND	ND	ND	ND	12	ND	2.46	 V,S,Pb	
12/29/2008	FMETL	ND	ND	ND	2.14	ND	ND	1.91	V,S,Pb	
03/27/2009	FMETL	ND	ND	ND	ND	ND	ND	2.73	V,S,Pb	FORT MONMOUTH
06/11/2009	FMETL	ND	ND	ND	ND	ND	ND	2.23	V,S,Pb	
										GW MONITORING Bldg. 287
										Source 1 of 1
										US ARMY FORT MONMOUTH SELF-PW-EV

