### **United States Army**

Fort Monmouth, New Jersey

# Underground Storage Tank Closure and Site Investigation Report

Building 2700 Myers Center

NJDEP UST Registration No. 81515-35 thru 39 Spill Case No. 98-03-26-1023-22

**June 1998** 

### UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT

#### **BUILDING 2700**

# MYERS CENTER NJDEP UST REGISTRATION NO. 81515-35 THRU 39 SPILL CASE NO. 98-03-26-1023-22

#### **JUNE 1998**

PROJECT NO.: 93-0945 CONTRACT NO.: DAAB08-97-C-0027

#### PREPARED FOR:

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

#### PREPARED BY:

ENVIRONMENTAL CONTROL TECHNOLOGIES, INCORPORATED 1100 DEVON COURT MAHWAH, NJ 07430

### **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	iv
1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES	1
1.1 OVERVIEW	1
1.2 SITE DESCRIPTION	2
1.2.1 Geological/Hydrogeological Setting	2
1.3 HEALTH AND SAFETY	3
1.4 REMOVAL OF UNDERGROUND STORAGE TANK	4
1.4.1 General Procedures	4
1.4.2 Underground Storage Tank Excavation and Cleaning	4
1.5 UNDERGROUND STORAGE TANK	
TRANSPORTATION AND DISPOSAL	5
1.6 MANAGEMENT OF EXCAVATED SOILS	5
2.0 SITE INVESTIGATION ACTIVITIES	6
2.1 OVERVIEW	6
2.2 FIELD SCREENING/MONITORING	6
2.3 SOIL SAMPLING	6
2.4 GROUNDWATER SAMPLING	7
3.0 CONCLUSIONS AND RECOMMENDATIONS	8
3.1 SOIL SAMPLING RESULTS	8
3.2 GROUNDWATER SAMPLING RESULTS	8
3.3 CONCLUSIONS AND RECOMMENDATIONS	9

### **TABLE OF CONTENTS (CONTINUED)**

#### **TABLES**

Table 1	<b>Summary of Post-Excavation Sa</b>	mpling Activities
I WID I	Cammary of 1 oot Excavation ou	mpmig Addivided

Table 2 Post-Excavation Soil Sampling Results

Table 3 Groundwater Sampling Results

#### **FIGURES**

Figure 1 Site Location Map

Figure 2 Site Map

Figure 3 Cross Sectional View

Figure 4 Soil Sampling Location Map

Figure 5 Groundwater Sampling Location Map

### **APPENDICES**

Appendix A Figures

Appendix B Site Assessment Summary/NJDEP Standard Reporting Form

Appendix C Waste Manifest

Appendix D UST Disposal Certificate

Appendix E Contaminated Soil Weigh Tickets

Appendix F Soil Analytical Data Package

Appendix G Groundwater Analytical Data Package

#### **EXECUTIVE SUMMARY**

#### **UST Closure**

Between March 23, 1998, and March 26, 1998, five steel underground storage tanks (USTs) were closed at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey, by removal in accordance with the Technical Regulations for the New Jersey Department of Environmental Protection (NJDEP). The USTs, NJDEP Registration Nos. 081515-35 thru 39, were located immediately behind Building 2700, in the Myers Center area of U.S. Army, Fort Monmouth. UST Nos. 081515-35 thru 39 were all 25,000-gallon No. 6 heating oil USTs. The UST fill ports were located directly above the tanks. The tank closures were performed by Environmental Control Technologies, Inc. (ECTI).

#### Site Assessment - Soil

¥.....

The site assessment was performed by ECTI in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual.* The site assessment activities conducted by ECTI were overseen by U.S. Army personnel. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, each UST was inspected for corrosion holes. Some holes were noted in some of the USTs and product piping. Evidence of potentially contaminated soils were observed surrounding each of the former tanks. Most of that contamination appeared to be the result of historic overfilling of the tanks.

Between March 23, 1998, and March 26, 1998, approximately 500 cubic yards of potentially contaminated soil were removed from the excavation.

Following removal of the USTs, it was determined that the bottom of the tanks and the concrete hold-down pad beneath the fuel oil tanks were under approximately four feet of ground water. As a result of the presence of ground water above the bottom of the tanks and the concrete pad, six soil samples were collected around the perimeter of the excavation, approximately six inches above the water line, in accordance with N.J.A.C. 7:26E-3.9(b)1. These soil samples were designated 2700-1 though 2700-6. The samples were collected through a six inch interval, starting at a depth of approximately nine feet below ground surface (BGS). Groundwater was present at approximately 10 feet BGS. Soil in the area of the product piping between the tank excavation and the boiler room was sampled for piping residues. A total of three soil samples were collected and analyzed, these samples were numbered PS-1 though PS-3. All samples were analyzed for total petroleum hydrocarbons (TPHC) by the U.S. Army, Fort Monmouth Environmental Laboratory (NJDEP Certification No. 13461).

### Findings - Soil

All post-excavation soil samples collected from the perimeter of the UST excavation contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/Kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples 2700-1 though 2700-6 contained levels of TPHC ranging in concentration from ND to 264.00 mg/Kg. Samples PS-1 though PS-3 contained levels of TPHC ranging in concentration from ND to 412.09 mg/Kg. No base/neutral analyses were conducted on any of the soil samples.

#### Site Restoration

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

#### Site Assessment Quality Assurance

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

#### Site Assessment Ground Water

In response to the observation of potentially contaminated soil and the potential of groundwater contamination, two (2) groundwater samples were collected at Building 2700. On November 13, 1998, and December 18, 1998, Building 2700 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

No further action is proposed in regard to the closure and site assessment of UST No. 81515-35 thru 39 at Building 2700.

# 1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

#### 1.1 OVERVIEW

ke. : 9

Five underground storage tanks (USTs) were closed at Building 2700, U.S. Army Fort Monmouth, Fort Monmouth, New Jersey, between March 23, 1998, and March 26, 1998. The USTs, NJDEP Registration Nos. 081515-35 thru 39, were located immediately behind Building 2700, off Pearl Harbor Avenue off the Main Post area of U.S. Army, Fort Monmouth. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of a UST Decommissioning/Closure Plan. The USTs were each steel 25,000-gallon tanks containing No. 6 heating oil.

Decommissioning activities for UST Nos. 081515-35 thru 39 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 were posted onsite for inspection. Environmental Control Technologies, Incorporated (ECTI), the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities (Certification No. US00617).

Based on an inspection of the USTs, visual evaluation and field screening of subsurface soils, and analytical results of collected soil samples, the DPW has concluded that an historical discharge was associated with the one or more of the USTs and associated piping. On March 26, 1998, a spill was reported to the NJDEP "Hotline" for UST No. 081515-35 and was assigned Spill Case No. 98-03-26-1023-22. This spill case number was also assigned to Building 2700.

This UST Closure and Site Investigation Report has been prepared by Environmental Control Technologies, Inc. The applicable NJDEP-BUST regulations at the date of closure were the *Requirements for Underground Storage Tank Systems* (N.J.A.C. 7: 14B-1 et seq. Effective December 21, 1987 with all revisions though November 17, 1997).

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

#### 1.2 SITE DESCRIPTION

Building 2700 is located off of the Main Post area of Fort Monmouth, as shown on Figure 1. USTs No. 081515-35 thru 39 were located on the rear (east) of Building 2700 and appurtenant piping ran approximately 30 feet east from an enclosed piping trench perpendicular to Building 2700. The fill port area was located directly above each of the tanks. A site map is provided on Figure 2.

#### 1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 2700. 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 area of activity.

#### 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. More than 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.

#### 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 involved 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 a photoionization detector (PID). 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 at the request of ECTI 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 a PID 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 was present during all Site Assessment activities.

#### 1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was opened to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 15,076 gallons of No. 2 heating oil was transported offsite for reuse by Fuel Tank Maintenance Service, Inc. An additional 1,500 gallons of oil contaminated water was transported by Fuel Tank Maintenance Service, Inc. to New York Oil Recovery, Inc., a NYDEC-approved petroleum recycling and disposal company located in Brooklyn, New York. Refer to Appendix C for copies of waste manifests.

The USTs were cleaned prior to removal from the excavation, in accordance with the NJDEP-BUST regulations. After the USTs were removed from the excavation, they were staged on polyethylene sheeting, examined for holes, and cut up on site for disposal. Some holes were observed in some tanks during the inspection by the Sub-Surface Evaluator. Soils surrounding the USTs above the ground water line were screened visually and with a PID for evidence of contamination. Potentially contaminated soils were observed within the excavation.

#### 1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tanks were cut up on site and transported by Neptune Scrap Metal Company to their yard for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificates.

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

- · Site of origin
- Contact person
- NJDEP UST Facility ID number
- Name of transporter/contact person
- Destination site/contact person

#### 1.6 MANAGEMENT OF EXCAVATED SOILS

Based on weight tickets from the weigh station at Fort Monmouth, approximately 500 cubic yards of potentially contaminated soils were removed from the excavation and staged behind Building 490, at the direction of U.S. Army personnel. These potentially contaminated soils were stockpiled on and covered with polyethylene sheets. 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 U.S. Army DPW personnel and carried out by ECTI. All TPHC analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, Inc., an NJDEP-certified testing laboratory. All sampling was performed under the direct supervision of an 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 Technical Regulations (N.J.A.C. 7:26E), which was the applicable regulation at the time of the closures.

The following Parties participated in Closure and Site Investigation Activities.

Closure Contractor: Environmental Control Technologies, Inc. (ECTI)

Closure Supervisor: Harry H. Elias, P.E.

Phone Number: (201) 236-8448 NJDEP Certification No.: 10510

Subsurface Evaluator: Dinkerrai M. Desai
 Employer: U.S. Army, Fort Monmouth

Phone Number: (908) 532-1475 NJDEP Certification No.: E0002266

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

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

NJDEP Company Certification No.: 13461

#### 2.2 FIELD SCREENING/MONITORING

Field screening was performed by an NJDEP Certified Sub-Surface Evaluator using a PID and visual observations to identify potentially contaminated material. Soils were removed from the UST excavation area until no evidence of contamination remained.

#### 2.3 SOIL SAMPLING

Due to field screening of subsurface soils, approximately 500 cubic yards of potentially contaminated soil were removed from the excavation between March 23, 1998 and March 26,1998.

Between March 23 and March 26, 1998, following removal of all soil from around and beneath the USTs, all five USTs were removed and shipped off site for disposal. The base of the USTs, as well as the concrete hold-down pad beneath the fuel oil tanks, were under approximately four feet of ground water. Following removal of the tanks, six soil samples

were collected from the soil around the perimeter of the excavation, in accordance with N.J.A.C. 7:26E-3.9(b) 1. These soil samples were collected approximately six inches above ground water and were designated 2700-1 through 2700-6. The samples were collected at a depth of approximately nine feet below ground surface (BGS). Groundwater was present at approximately 10 feet BGS. Product piping soil samples were collected from the piping trench and designated PS-1 though PS-3. All samples were analyzed for total petroleum hydrocarbons (TPHC) by the U.S. Army, Fort Monmouth Environmental Laboratory (NJDEP Certification No. 13461).

The site assessment was performed by ECTI personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual. A summary of sampling activities including parameters analyzed is provided in Table 1. Following soil sampling activities, the TPHC 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

On November 13, 1998, and December 18, 1998, Building 2700 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*. Refer to Appendix G for the field sampling documentation.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

#### 3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the USTs and their associated piping, post-excavation soil samples were collected from a total of 9 locations. The first six samples (numbered 2700-1 thru 2700-6) were collected around the perimeter of the excavation on March 27, 1998. The product piping samples (numbered PS-1 thru PS-3) were collected along the piping trench on March 17, 1998. No excessive TPHC results were found among any of these samples. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/Kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2. The analytical data package is provided in Appendix F.

All post-excavation soil samples collected from the perimeter of the UST excavation, as well as product piping samples associated with the former USTs at Building 2700, contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/Kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Among the 2700 series of soil samples, TPHC concentrations ranged from ND (samples 2700-1, 2, 4, 5, 6) to 264.00 mg/Kg (sample 2700-3). Among the PS series of soil samples, TPHC concentrations ranged from ND (sample PS-3) to 412.09 mg/Kg (sample PS-2). According to the NJDEP Technical Regulations (N.J.A.C. 7:26E2.1(d) and Table 2-1), samples collected for TPHC analyses from excavations which contained USTs holding No. 6 heating oil must analyze one sample in four which contain greater than 100 mg/Kg TPHC for polynuclear aromatic hydrocarbons (PAHs). However, for this site no PAH analyses were conducted on any of the soil samples.

#### 3.2 GROUNDWATER SAMPLING RESULTS

The sample collected from Building 2700 on November 13, 1998, contained cis-1,2-dichloroethene at 1.41ug/l. No other compounds were detected. Cis-1,2-dichloroethene was also detected in the field dup at a concentration of 1.56 ug/l. No other compounds were detected in the field dup. Methylene chloride was detected in the field blank at a concentration of 2.15 ug/l. No other compounds were detected in the field blank. The methylene chloride concentration exceeds the GWQS on account of laboratory contamination.

No compounds were detected in the sample collected from Building 2700 on December 18, 1998. Bis(2-ethylhexyl)phthalate was detected in the field blank at a concentration of 27.53 ug/l. No other compounds were detected in the field blank.

A summary of the analytical results and comparison to the NJDEP groundwater cleanup criteria is provided in Table 3. The analytical data package is provided in Appendix G. The full data package, including quality control, is on file at U.S. Fort Monmouth, DPW.

Groundwater samples collected on November 13, 1998, and December 18,1998, were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

#### 3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 2700 were below the NJDEP soil cleanup criteria for total organic contaminants.

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

Based on the analytical results of the groundwater samples collected at Building 2700 on November 13, 1998, and December 18, 1998, groundwater quality at Building 2700 was either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

No further action is proposed in regard to the closure and site assessment of UST No. 81515-35 thru 39 at Building 2700.

ks u		
r 3		TABLES
k. s		IADELO
f 1		
L 4		

( ) .

r . .

د ع

Γ 1 **L**.u

 $r \rightarrow$ 

b. ...

jr 1

 $r \rightarrow$ 

E 1

F

(ر. بر)

F 1

r 1

F 3

ŗ i

F.:

TABLE 1

# SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES BUILDING 2700, MAIN POST FORT MONMOUTH, NEW JERSEY

Page 1 of 2

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
2700-1	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
2700-2	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
2700-3	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
2700-4	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
2700-5	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
2700-6	3/27/97	3/27/97	Soil	Post-Excavation	TPHC	418.1
PS-1	3/17/97	3/18/98	Soil	Post-Excavation	TPHC	418.1
PS-2	3/17/97	3/18/98	Soil	Post-Excavation	TPHC	418.1
PS-3	3/17/97	3/18/98	Soil	Post-Excavation	TPHC	418.1

Note:

TPHC Total Petroleum Hydrocarbons

TABLE 1

#### SUMMARY OF SAMPLING ACTIVITIES **BUILDING 2700, MAIN POST** FORT MONMOUTH, NEW JERSEY

Page 2 of 2

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Sampling Method**
4052.03	11/13/98	11/17/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4149.01	12/18/98	12/28/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP

Note:

\*VOCs: \*SVOCs:

Volatile Organic Compounds plus 15 tentatively identified compounds Semivolatile organic compounds plus 15 tentatively identified compounds Passively Placed Narrow Diameter Point

\*\*PPNDP:

TABLE 2 PAGE 1 OF 1

# POST-EXCAVATION SOIL SAMPLING RESULTS BUILDING 2700 FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
2700-1 / 9'-0" to 9'-6"	3438.01	3/27/98	3/28/98	Total Solid			83.06 %	N/A	
2700-177-0 107-0	5450.01	3121170	3/20/70	TPHC	90	yes	ND	10,000	
2700-2 / 9'-0" to 9'-6"	3438.02	3/27/98	3/28/98	Total Solid			83.04%	N/A	
				TPHC	93	yes	ND	10,000	<u></u> :
2700-3 / 9'-0" to 9'-6"	3438.03	3/27/98	3/28/98	Total Solid			85.21 %	N/A	
				TPHC	89	yes	264.00	10,000	
2700-4 / 9'-0" to 9'-6"	3438.04	3/27/98	3/28/98	Total Solid			82.37 %	N/A	
				TPHC	95	yes	ND	10,000	
2700-5 / 9'-0" to 9'-6"	3438.05	3/27/98	3/28/98	Total Solid			78.18 %	N/A	
				TPHC	99	yes	ND	10,000	
2700-6 / 9'-0" to 9'-6"	3438.06	3/27/98	3/28/98	Total Solid			85.05 %	N/A	
				TPHC	91	yes	ND	10,000	
PS-1 / 1'-6" to 2'-0"	<u>8</u> 414.01	3/17/98	3/19/98	Total Solid			81.54 %	N/A	
				TPHC	184	yes	405.20	10,000	
PS-2 / 1'6" to 2'0"	8414.02	3/17/98	3/19/98	Total Solid			84.86 %	N/A	
	_		•	TPHC	179	yes	412.09	10,000	
PS-3 / 1'6" to 2'0"	<u>8</u> 414.03	3/17/98	3/19/98	Total Solid			87.99 %	N/A	
				TPHC	175	yes	ND	10,000	

#### Notes:

\* Cleanup criteria for total organics

N/A Not applicable

-- Does not exceed criteria
TPHC Total Petroleum Hydrocarbons

ND None Detected

# Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

Date Sampled: 11/13/98 Location: 2700 Lab Sample ID: 4052.01(Trip Blank)

_					•	•
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	no
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	no
75-09-2	Methylene Chloride	0.24	Not Detected		2	по
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected		6	по
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no
	<del></del>	<u> </u>	<del></del>	<u> </u>	L	

### Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.01(Trip Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected	<u></u>	400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	по
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected	-	3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	по
100-42-5	Styrene	0.56	Not Detected	-	100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected	-	2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	I,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	по

# Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

Date Sampled: 11/13/98 Location: 2700 Lab Sample ID: 4052.02(Field Blank)

Dute Sumpi	<u> </u>		<u>2700</u>			Z(Tiela Diamit)
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected	<del></del>	nle	по
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	по
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	по
74-83-9	Bromomethane	1.10	Not Detected		10	по
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	по
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	no
75-09-2	Methylene Chloride	0,24	2.15	<u>-</u> /	2	yes
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	по
67-66-3	Chloroform	0.30	Not Detected		6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	по
75-27-4	Bromodichloromethane	0.55	Not Detected		1	по
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no

Note:

<sup>\*</sup> Compound exceeds criteria due to laboratory contamination

### Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	по
591-78-6	2-Hexanone	0.71	Not Detected		nle	по
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	по
100-42-5	Styrene	0.56	Not Detected		100	по
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	по
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

### Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.03(Bldg 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	по
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	по
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected	<u></u>	2	no
67-64-1	Acetone	1.36	Not Detected		700	по
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	по
75-09-2	Methylene Chloride	0.24	Not Detected		2	no
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	по
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	по
156-59-2	cis-1,2-Dichloroethene	0.17	1.41		10	no
67-66-3	Chloroform	0.30	Not Detected		6	по
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	по
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no

### Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.03(Bldg 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	no
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

### Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

<u>11/13/98</u>

Location:

<u>2700</u>

Lab Sample ID: 4052.06(DUP 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	I, 1-Dichloroethene	0.24	Not Detected		2	no
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	по
75-09-2	Methylene Chloride	0.24	Not Detected		2	no
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	1.56		10	no
67-66-3	Chloroform	0.30	Not Detected		6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	по
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no

r a

# Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP# 13461 Matrix: (soil/water) WATER

Date Sampled: <u>11/13/98</u> Location: <u>2700</u> Lab Sample ID: <u>4052.06(DUP 2700)</u>

•	<u></u>					
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected	-	10	no
108-90-7	Chlorobenzene	0.39	Not Detected	-	4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	no
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

# Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	по
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	no
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	по
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzyl alcohol	2.09	Not Detected		nle	по
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	по
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	no
67-72-1	Hexachloroethane	2.59	Not Detected		10	no
98-95-3	Nitrobenzene	2.45	Not Detected	-	10	no
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected	-	1	по
91-57-6	2-Methylnaphthalene	2.49	Not Detected	-	nle	no
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	no
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	no
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	по
208-96-8	Acenaphthylene	2.35	Not Detected		nle	no

### Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

لديما

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected	-	10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected		300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected	-	nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected	-	10	no
85-01-8	Phenanthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1.79	Not Detected	-	2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	no
129-00-0	Pyrene	1.02	Not Detected		200	по
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	no
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	по
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	no
218-01-9	Chrysene	2.32	Not Detected		20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	no
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no

### Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.03(Bldg 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	no
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	по
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzyl alcohol	2.09	Not Detected		nle	no
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	no
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	no
67-72-1	Hexachloroethane	2.59	Not Detected		10	no
98-95-3	Nitrobenzene	2.45	Not Detected		10	по
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	по
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	no
91-57-6	2-Methylnaphthalene	2.49	Not Detected		nle	по
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	no
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	по
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	no

£\_1,...}

# Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

Date Sampled: <u>11/13/98</u> Location: <u>2700</u> Lab Sample ID: <u>4052.03(Bldg 2700)</u>

-	<del></del>					<del></del>
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected	_	nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected	-	nle	по
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected		300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected	-	20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected		nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	no
85-01-8	Phenanthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1.79	Not Detected		2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	no
129-00-0	Pyrene	1.02	Not Detected		200	по
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	no
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	no
218-01-9	Chrysene	2.32	Not Detected		20	по
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	по
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	по
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	по
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no

# Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/13/98

Location:

<u>2700</u>

Lab Sample ID: 4052.06(DUP 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	no
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	no
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzyl alcohol	2.09	Not Detected		nle	no
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	no
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	no
67-72-1	Hexachloroethane	2.59	Not Detected		10	по
98-95-3	Nitrobenzene	2.45	Not Detected		10	no
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	no
91-57-6	2-Methylnaphthalene	2.49	Not Detected		nle	no
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	по
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	по
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	nó

X 1 3

### Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

Date Sampled: <u>11/13/98</u> Location: <u>2700</u> Lab Sample ID: <u>4052.06(DUP 2700)</u>

p-			<u>=</u>			
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	по
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected		300	по
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	по
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected		nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	no
85-01-8	Phenanthrene	1.67	Not Detected		nle	по
120-12-7	Anthracene	1.79	Not Detected	-	2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected	-	300	no
92-87-5	Benzidine	4.11	Not Detected		50	no
129-00-0	Pyrene	1.02	Not Detected	-	200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	по
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	по
218-01-9	Chrysene	2.32	Not Detected		20	по
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	no
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no
			l		1	L.,

### Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

13461

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4148.01(Trip Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1,16	Not Detected		30	по
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		пlе	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	no
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	по
75-09-2	Methylene Chloride	0.24	Not Detected		2	по
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	по
75-35-3	1,1-Dichloroethane	0.12	Not Detected	<u></u>	70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	по
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected		6	по
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	по
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	по
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected	<u></u>	1	по
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no

4

 $r : \iota$ 

### Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

13461

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4148.01(Trip Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	по
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	по
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	по
1330-20-7	o-Xylene	0.62	Not Detected		nle	no
100-42-5	Styrene	0.56	Not Detected		100	по
75-25-2	Bromoform	0.70	Not Detected		4	по
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	по

### Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4148.13(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	по
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	по
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	no
75-09-2	Methylene Chloride	0.24	Not Detected		2	no
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected		6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		пle	по

## Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4148.13(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	по
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	по
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	по
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	по

## Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

<u>12/18/98</u>

Location:

<u>2700</u>

Lab Sample ID: 4149.01(Bldg 2700)

zaw zamp	12,10,70	Louin	<u> 2700</u>	Euo o	1111710 1D: <u>1117710</u>	71(Diag 2700)
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no
107131	Acrylonitrile	2.78	Not Detected		50	по
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected		nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	по
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	no
75-35-4	1, I-Dichloroethene	0.24	Not Detected		2	по
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	no
75-09-2	Methylene Chloride	0.24	Not Detected		2	по
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected		6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	по
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	по

## Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4149.01(Bldg 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	по
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	по
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	по
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

## Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4148.13(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	по
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	по
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	по
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected	-	75	no
100-51-6	Benzyl alcohol	2.09	Not Detected		nle	по
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected	·	300	по
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	по
67-72-1	Hexachloroethane	2.59	Not Detected		10	no
98-95-3	Nitrobenzene	2.45	Not Detected		10	no
78-59-1	Isophorone	2.31	Not Detected	-	100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected	-	nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nie	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	no
91-57-6	2-Methylnaphthalene	2.49	Not Detected		nle	no
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	по
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	no
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	no
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	no

## Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

Date Sampled: 12/18/98 Location: 2700 Lab Sample ID: 4148.13(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	по
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected	-	300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	по
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	по
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected		nle	по
118-74-1	Hexachlorobenzene	1.88	Not Detected	-	10	no
85-01-8	Phenanthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1.79	Not Detected		2000	по
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	по
129-00-0	Pyrene	1.02	Not Detected		200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	по
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	по
218-01-9	Chrysene	2.32	Not Detected		20	по
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	27.53		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	no
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	по
	<u> </u>	1		<del></del>		<u> </u>

## Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

**FMETL** 

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

12/18/98

Location:

<u>2700</u>

Lab Sample ID: 4149.01(Bldg 2700)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	no
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	no
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	по
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzył alcohol	2.09	Not Detected		nle	no
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	no
67-72-1	Hexachloroethane	2.59	Not Detected		10	по
98-95-3	Nitrobenzene	2.45	Not Detected		10	no
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected	-	nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		. 1	no
91-57-6	2-Methylnaphthalene	2.49	Not Detected		nle	no
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	по
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	по
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	no

## Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER

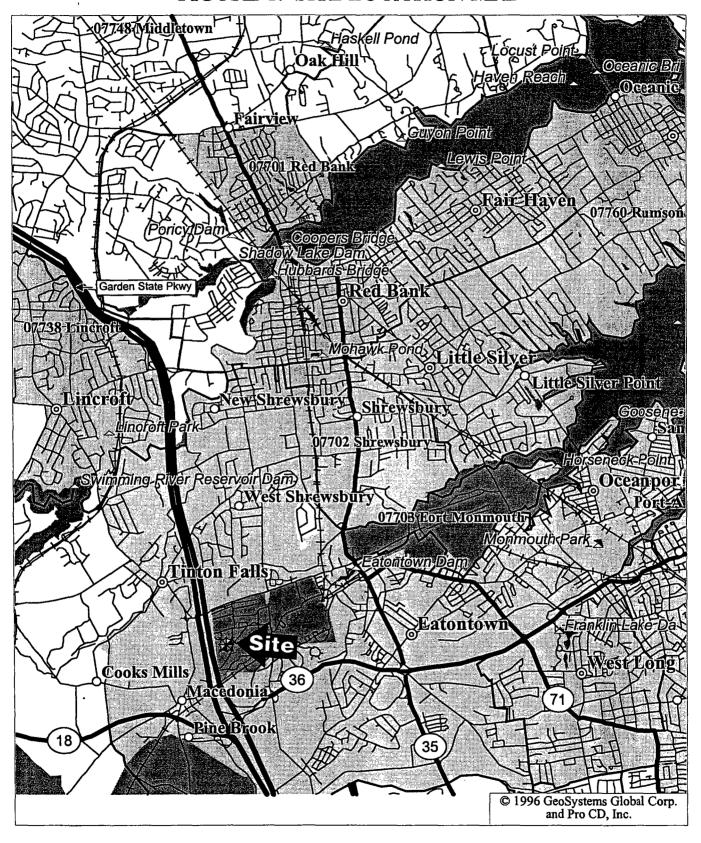
Date Sampled: 12/18/98 Location: 2700 Lab Sample ID: 4149.01(Bldg 2700)

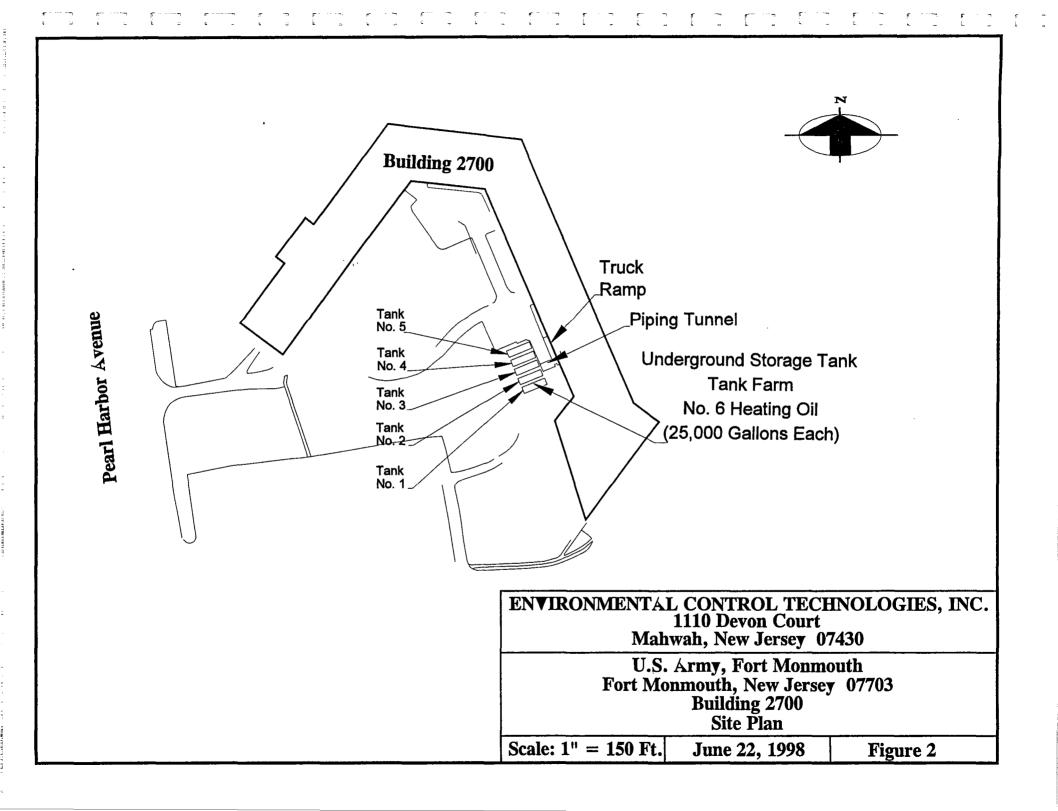
r						
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	по
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected		300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	по
103-33-3	Azobenzene	1.92	Not Detected	<u>-</u>	nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected		nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	по
85-01-8	Phenanthrene	1.67	Not Detected		nle	по
120-12-7	Anthracene	1.79	Not Detected		2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	по
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	no
129-00-0	Pyrene	1.02	Not Detected		200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	по
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	no
218-01-9	Chrysene	2.32	Not Detected		20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	no
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	по
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	по
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no
	<u> </u>	<del></del>	L			L

**APPENDIX A** 

**FIGURES** 

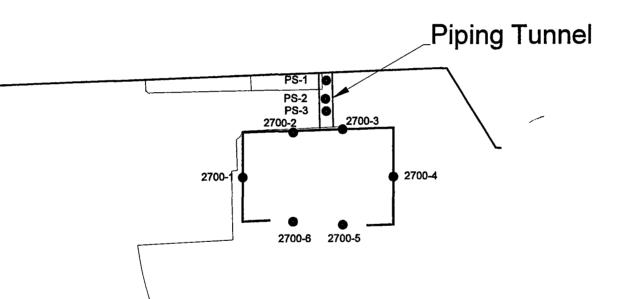
FIGURE 1. SITE LOCATION MAP







### **BUILDING 2700**



ENVIRONMENTAL CONTROL TECHNOLOGIES, INC. 1110 Devon Court Mahwah, New Jersey 07430

U.S. Army, Fort Monmouth
Fort Monmouth, New Jersey 07703
Building 2700
Site Plan - Location of Soil Sampling Points

Scale: 1" = 50 Ft

June 22, 1998

Figure 3

#### **APPENDIX B**

SITE ASSESSMENT SUMMARY/
NJDEP STANDARD REPORTING FORM

#### **Site Remediation Program**

### UST Site/Remedial Investigation Report Certification Form

A. Facility Name: <u>U.S. Army Fort</u>	Monmouth New Jersey		
Facility Street Address : <u>Direct</u>	orate of Public Works	Building 173	
Municipality: Oceanport		County: Monmouth	
Block:Lot(s)	:	Telephone l	Number : 732-532-6224
B. Owner (RP)'s Name:			
Street Address:		City :	
State:	Zip: Tel	ephone Number :	
C. (Check as appropriate)  Site Investigation Report (SIR) \$500 Fee  Remedial Investigation Report (RIR) \$1000 Fee  X_NA - Federal Agreement	UST Registration Number	: Ian Curtis, Federal Case N   er : 81515-35 thru 39   98 - 03 - 26 - 1023 	(7 digits) 22 (10 or 12 digits) 
E. Certification by the Subsurfa The attached report conforms to  Name: Harry H. Elias  Firm: Environmental Control Te	o the specific reporting req	UST (	
Firm Address: 1110 Devon Ct.			
State: NJ Zip:			
(NOTE: Certification numbers requ	ired only if work was cond	ucted on USTs regulated per N.	J.S.A. 58:10A-21 et seq.)
resolution, certified as a true co. 2. For a partnership or sole proprio. 3. For a municipality, State, federa	e signed [according to the authorized by a resolution py by the secretary of the cetorship, by a general part of or other public agency by	requirements of N.J.A.C. 7:14B of the board of directors to storporation, shall be submitted er or the proprietor, respectively	ign the document. A copy of the along with the certification; or y; or ficer or ranking elected Official.
application and all att information, I believ significant civil pen- committing a crime o	ached documents, and that bate that the submitted information for knowingly submit of the fourth degree if I make a	ssed on my inquiry of those individ ation is true, accurate, and compl ting false, inaccurate, or incomp written false statement which I do plation of any statute, I am personal	uals responsible for obtaining the ete. I am aware that there are lete information and that I am not believe to be true. I am also
1 XI A	es Ott  Off	Tit	le: Directorate of Public Works
Signature: U.S.	. Army Fort Monmouth	Da	te: <u>9/4/00</u>

#### **NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION BUREAU OF APPLICABILITY AND COMPLIANCE

Registration and Billing Unit CN 028, Trenton, N.J. 08625-0028 1-609-984-3156

FOR STATE USE ONLY											
Chec	kin [	Yes 🗌	No								
STA Active	TUS Inactive	COMCOD	Œ								

UNDERGROUND STORAGE TANK FACILITY QUESTIONNAIRE	
FACILITY UST # 81515	
Completion of this Registration Questionnaire will satisfy the registration requirements of the Under Hazardous Substances Act, N.J.S.A. 58:10A-21, and the Registration and Billing Regulations N.J.	
[Check appropriate box(es)]  A. Is this a registration of a proposed or newly installed underground storage tank? (This form must be filed B. Is this a registration of an existing underground storage tank not presently registered?  C. X Is this a correction or amendment to an existing facility registration? UST #81515  D. There have been no changes to the facility registration since last submittal. UST #	at least 30 days prior to operation) (Go to certification page for
Facility Name and/or Address Change Owner Name and/or Address Change Facility Operator and/or Address Change Owner Contact Person Change  Type of Product(s) Stored Financial Respons Substantial Modific Tank(s) and/or Piping Changes  Closure (Complete Question #13)  Other (please spec	cation(s) Complete Questions 4,5,6 & 13D
SECTION A - GENERAL FACILITY INFORMATION	
1. Facility Name U.S. Army, - Fort, Monmouth	
2. Facility Location Directorate of Public Works Building 173	
Fort Monmouth	
Monmouth 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	* LOT
3. Facility Operator James Ott, Director DPW Contact 732 Tele. No.	532   3854,
PERSON OR TITLE  Operator Address  (If different than	(Extension)
*2)	<del></del>
CITY OR MUNICIPALITY	
STATE ZIP CODE	
4. Tank Owner . U.S. Army - Fort Monmouth	
5. Tank Owner Same as Item 2 NUMBER AND STREET	
6. Contact Person Charles Appleby Contact 732 Contact 732 Tele. No.(Area Code)	532   6224,
7. EPA ID #	1
8. Total number of regulated underground storage tanks at facility 0005 (Complete Section B for each	ı tank)

								-										
9. Total regulated underground storage to	ank cap	paci	ty at fa	cilit	y (gallo	ns)	11	2	5 0	0	0							
10. Facility Type: A State Commercial/	8×	Co Fe	ounty/M derai	luni	icipal	E F			nce	Put	olic Scho	ool	G [ H [	Other Farm (			in N.J.S	5.A
11. Is a copy of the facility site plan submit	ted wit	h thi	is regis	trat	ion pur	sua	ant to N.	J.A.	C. 7:	148	3-2?	YE	s	NO	J. 1 G	,04.)		
SECTION B. SPECIFIC TANK INFO	NO.14	TIA																
SECTION B - SPECIFIC TANK INFO	JHMA	110	N															
ALL underground tanks, including those tal 9/3/86) must be registered. Report all tank												FRO	M TI	HE GROU	JND P	RIOF	OT F	
1. Tank Identification Number	TA		NO. 3 5		TAN	įΚ ∐:	NO. 3 [6]		TAN		NO. 3 7	7,	ANK	NO. 3 8	Ţ	ANK	( NO.  3 9	
2. CAS Number (hazardous substances only)	بيا			Ц	1.1.1	1	1111		11			<u>.</u> .1. 1.	1.1	1111	1 1	1 1	1 1 1 !	П
3. Date Tank Installed (Month/Day/Year)	Mo. C	ay	Year		Mo. Da	, y	Year	Mc	Day	1	Year	Mo.	Day   ·	Year	Mo. I	Day	Year	
<sup>1</sup> 4. Tank Size (gailons)	2	5	00	ŋ	[2]	5	0 0 0		2	5	000	72	: 5	000	2	5	0 0 0 0	1
5. Tank Contents (Mark one "X" for each tank)		_	1				 1			_				<del></del>				٦
A. Leaded gasoline B. Unleaded gasoline	<del> </del>	+		$\dashv$		Н		╁		$\dashv$		ļ	+		<del>                                     </del>			4
C. Alcohol endriched gasoline	ļ	+	<del> </del>	$\dashv$		Н		+		+		<u> </u>	+		<del> </del>	+-		1
D. Light diesel fuel (No. 1-D)		上																1
E. Medium diesel fuel (No. 2-D)		$\perp$				Ц		4_		$\perp$								]
F. Waste Oil	<del> </del> -	+	<del> </del>	-		Н		╀		$\dashv$				<del> </del>	ļ	4	<del></del>	4
G. Kerosene (No. 1) H. Home heating oil (No. 2)	<del> </del>	╁╌	<del>                                     </del>	+		Н		+-		+		}	+-			++		$\dashv$
J. Heating oil (No. 4)		士														1	<del></del>	7
K. Heavy heating oil (No. 6)													$oxed{\Box}$					]
L. Aviation fuel	<del> </del> -	+	<del> </del>	_			<u> </u>	4-		4						44		4
M. Motor oil N. Lubricating oil	├	+-	<del> </del>			$\vdash$		╀		+			+	<del> </del>		+-1	<del></del>	-
P. Sewage	<del> </del>	+	<del>                                     </del>	$\dashv$				╁		+			+	<del> </del>		+	_	$\dashv$
Q. Sewage sludge		十	1	7			l	1		十			+			+		1
R. Other hazardous substances (specify)																		]
S. Hazardous waste (specify ID number)				_				┸										_
T. Mixtures (please specify)				_				╀							<u> </u>			4
U. Emergency spill tank (specify substance)     V. Other petroleum products (please specify)								+						<del></del>				$\dashv$
W. Other (please specify)	<del>'</del>			-				╁							<del>                                     </del>			┨
6. Tank & Piping Construction	Tan	k	Pipin	a	Tank	_	Piping	15	ank		Piping	Tan	ık	Piping	Tan	 k	Piping	┨
(Mark one each for both tank & piping)		 1	L_J	۱ -				`				_	1	LJ		1		ı
A. Bare Steel B. Cathodically protected steel	++	-	++	-			++-	╁	<del>                                     </del>		+	<del>    -</del>	├~	+			++-	$\dashv$
C. Fiberglass-coated steel	1-1-		++	$\dashv$			++-	1-			11		<del>                                     </del>		1-1-	- <del>-</del> -	+	1
D. Fiberglass-reinforced plastic									$\overline{1}$								$\coprod$	]
E. Internally lined				_				1	Щ		<u> </u>		<u> </u>				سللك	4
F. Other (please specify)	<u> </u>	_						4				<b>!</b>			ļ			4
7. Tank & Piping Structure	Tan	k	Pipin	g	Tank		Piping	1	ſank		Piping	Tan	ık	Piping	Tan	k	Piping	-
(Mark one each for both tank & piping)  A. Single wall		1							$\Box$				7			i		١
B. Double wall	11	$\vdash$	11				11	1	11		1						++	┨
C. Other (please specify)		·						I										
8. Type of Monitoring/Detection System	Tan	k	Pipin	g	Tank	(	Piping	٦	<b>Tank</b>		Piping	Tar	nk	Piping	Tan	ık	Piping	,
(Mark all that apply for both tank & piping)  A. Statistical Inventory Reconciliation	1	1	$\Box$						П			1 _	7		_	7		١
B. Manual Tenk Gauging	++		-++			_		+	<del>     </del>		+ -		1	+ + -	† †	<del>                                     </del>	++	7
C. Inventory Control						_		工		_								J
D. Interstitial						_		I	$\Box$								II	$\Box$
E. Precision Test	1-1-	<del> </del>	44		┝┵┤			4	$\sqcup$			$\vdash$			$\vdash \vdash$		+	4
F. Ground water observation wells G. Vapor observation wells	++	-	-++		- -			+	+-		+	┼┼-	-		+	+	++	$\dashv$
H. In-tank (automatic) monitoring gauge	<del>    -   -</del>	┼	++		┝╍┼╌┤		<del>- - -</del>	+	++	<del></del>	++-	<del>                                     </del>	+-	<del>- - -</del>	+	+-	++	$\dashv$
J. Periodic Tank Test	<del>'  </del> -	+-			┺═╅┤				+		<u> </u>	1	1-		+	+		┨

Tank Identification Number	1	TAN	K NO.	TANK NO.			TANK NO.				TAN	K NO.	TAN	TANK NO.	
8. Type of Monitoring/Detection System	Ta	nk	Piping	Ta	nk	Piping	Tai	nk	Piping	Tai	nk	Piping	Tank	Piping	
K. None		l.		<u> </u>	1			ï.			<u> </u>				
L Other (please specify)  9. Overfill Protection (tank only) (Mark one X for each tank)  A. Yes			า			٦			٦				ſ		
B. No		_	<del> </del>		-	+	$\vdash$		<del> </del>			<del>                                     </del>			
10. Spill Containment Around Fill Pipe (Mark one X for each tank) A. Yes		<del></del>	1						<u> </u>		 [	7			
B. No 11. Tank Status (Mark one X for each tank)	Ta	 <u>n</u> k	Piping	Т <u>а</u>	nk	Piping	Ta	nik	Piping	Ta	nk	Piping	Tank	Piping	
A. In-use B. Empty less than 12 months C. Empty 12 months or more D. Emergency spill tank (sump)											-				
E. Emergency backup generator tank							$\prod$								
F. Abandoned in Place	П						П								
G. Removed	Ш						Ш			Ш					
H. Other (please specify)	-			<b> </b>			<del> </del>		<del></del>	-					
12. If box 11B, C, or D above has been marked, indicate the estimated date last used (month/day/year)	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo. Day	Year	
13. Closure Information - Tank ID No.			К NO. [3]5]		$\Box$	( NO.  3 6			3 7			1K NO.  3 8  V : Year		3 9	
A. Date abandoned in place	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year 	Mo	Da	y tear	Mo. Da	Year	
B. Date taken temporarily out of service	1	Ц.					L.		111	1	11	111			
C. Date removed	03	2 5	1998	0 3	2 5	1998	03	2 5	1 9 9 8	0 :	3 21	5191918	0  32	5 1 9 9 8	
D. Date of Sale or Transfer	۱.		1,11	۱,		1111	1	1	111	1	1,			1:11	
E. TMS # (if applicable) N/A	Γ	FEI	DERAL	C/	\SE	MANA	GE	ME	NT						
F. ISRA # (if applicable)															
SECTION C - FINANCIAL RESPONS	LIBII	IΤV	7												
Does this facility have a Financial Responsit Please list the appropriate financial informations	oility	Assu	rance Med	chani	sm a				280? [		'ES	NO	N/	' <b>A</b> .	
Туре	-						Vall		sauling Ag	, or ic	,	•			
Effective Date Expiration D	_ / eate					Policy N	lumb	er .				\$ An	nount	<del></del>	
SECTION D - MONITORING SYSTE	MS	]	•											•-	
Does this facility have a release detection m if "No", please be aware that the facility mus	t me	et the	appropri									· []	YES [	NO NO	
SECTION E - RECORDKEEPING/CO	OMP	LIA	ICE												
Please answer all the questions in this section.  1. Does this facility have cathodic protein if "Yes", are the systems properly of the systems properly of the things and document to N.J.A.C. 7:14B-5?  3. Are the proper monitoring, testing, so N.J.A.C. 7:14B-5 and 6?	ction perate umer ampli	systed an atation	ems for all d maintain n of monite epair and	l stee ned p oring inven	il tani oursu syste	ks and pipi ant to N.J. ems maint records ke	ing? A.C. ained pt on	7:14E d by ti	3-5? he owner	or o			YES YES YES YES 2	00 NO NO NO	
<ul><li>4. Is the proper Release Response Pla</li><li>5. Does the facility have spill and over t</li><li>6. Have all Fill Ports been permanently</li></ul>	ill pro	otecti	on system	ıs pu	rsuar	nt to N.J.A.	.C. 7:	14B~	47 14B-5?				YES 7 YES 7	<del>ori</del>	

u. s

b. of

**F** 3

TARORTA	VT INFORMATION
processing. Registration and Billing Sche	er, State of New Jersey". Use of the enclosed return envelope will expedite dule can be found in N.J.A.C. 7-14B
All Initial Registration fees are \$100 per f	acility.
ENALTY: Failure by owner or operator of a regulate	d underground storage tank to comply with any requirement of the State UST
Act or regulations may result in the penalt	
MERGENCY: If a discharge or spill occurs, the NIDEP I PGRADE EXEMPTION: Residential heating oil underground storage	Hotline at (609) 292-7172 must be called IMMEDIATELY - 24 hours a day.
	OW (critical deadlines)
	s must have cathodic protection and spill/overfill protection.
•	ms must have cathodic protection and spill/overfill protection.
December 22, 1990 — All federally regulated piping must have February 19, 1993 — All federally regulated tank systems mu	e begun teak detection. Ist maintain financial responsibility assurance.
December 22, 1993 — All federally regulated tank systems mu	· · · · · · · · · · · · · · · · · · ·
December 22, 1998 — All regulated tanks shall install cathodic	
	TIFICATIONS
NOTE: IF THE PERSON SIGNING CERTIFICATION NO. 2 IS TO CERTIFICATION NO. 2 NEED NOT BE SIGNED. (If different p	THE SAME AS THE PERSON SIGNING CERTIFICATION NO. 1, THEN persons are required to sign No. 1 and No. 2, then they must do so.)
CERTIFICATION NO. 1:	
Must be signed by the highest ranking individual at the facility	with overall responsibility
"I certify under penalty of law that the information provide	ed in this document is true, accurate and complete to the best of m
	significant civil and criminal penalties for knowingly submitting false
	a crime of the fourth degree if I make a written false statement which
	direct or authorize the violation of any statute, I am personally liable for
the penalties."  James Ott	
(Typed / Printed Name)	(Signature)
Director, DPW	(Oignatur)
(Title)	(Date)
CERTIFICATION NO. 2:	• •
Must be signed as follows:	
• For a corporation, by a principal executive officer of at least	the level of vice president
• For a partnership or sole proprietorship, by a general partner	
• For a municipality, State, Federal or other public agency, by	
• For persons other than indicated above, by the person with le	
	and am familiar with the information submitted herein and all attache
	immediately responsible for obtaining the information. I believe that the that there are significant civil and criminal penalties for knowingles.
	t I am committing a crime of the fourth degree if I make a written fals
	that if I knowingly direct or authorize the violation of any statute, I at
personally liable for the penalties."	
(Typed / Printed Name)	
·	(Signature)
(Title)	
(Title)	(Signature) (Date)
(Title) CERTIFICATION NO. 3:	(Date)
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified	(Date)
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provided to the infor	(Date)  I to perform services.  ed in this document is true, accurate and complete to the best of m
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are	(Date)  I to perform services.  The distribution of the best of me significant civil and criminal penalties for knowingly submitting fals.
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are inaccurate or incomplete information and that I am committing	(Date)  I to perform services.  ed in this document is true, accurate and complete to the best of no significant civil and criminal penalties for knowingly submitting false g a crime of the fourth degree if I make a written false statement which
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are inaccurate or incomplete information and that I am committing do not believe to be true. I am also aware that if I knowingly the penalties."	(Date)  I to perform services.  ed in this document is true, accurate and complete to the best of me significant civil and criminal penalties for knowingly submitting false a crime of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the control of
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are inaccurate or incomplete information and that I am committing do not believe to be true. I am also aware that if I knowingly	(Date)  I to perform services.  ed in this document is true, accurate and complete to the best of me significant civil and criminal penalties for knowingly submitting false a crime of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the control of
(Title)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are inaccurate or incomplete information and that I am committing do not believe to be true. I am also aware that if I knowingly the penalties."  Harry H. Elias, P.E. Operations Mgr (Typed/Printed Name)	(Date)  I to perform services.  I to perform services.
(Tide)  CERTIFICATION NO. 3:  If applicable, must be signed by the individual who is certified "I certify under penalty of law that the information provide knowledge, information and belief. I am aware that there are inaccurate or incomplete information and that I am committing do not believe to be true. I am also aware that if I knowingly the penalties."  Harry H. Elias, P.E. Operations Mgr	(Date)  I to perform services.  The direction of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the direction of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the direction of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the direction of the fourth degree if I make a written false statement which direct or authorize the violation of any statute, I am personally liable for the direction of the

UST-021 (9/94)

APPENDIX C
WASTE MANIFESTS



# State of New Jersey Department of Environmental Protection Hazardous Waste Regulation Program Manifest Section CN 421, Trenton, NJ 08625-0421

UNIFORM HAZARDOUS  1. Generator's US	المأسيعة بالمسا	Manifest	2. Page	I minoris	3 No. 2050-003 ation in the s	
WASTE MANIFEST  Generator's Name and Mailing Address	10030377	Document No.	of A. Stat		required by	
Generator's Name and Mailing Address  V.S.A.C.A.Y. Community of Technology  Community of Technol	Comme					
Many Post the Lough Folk Bld 12	b 		8 30			
ATTU SCHENZEN EN FOR MOREN	* 1 ( 1/4 )		And Se			
Transporter 1 Company Name	6. US EPA ID Num	ber	CON			
	MINDERDELLA		F 195 35 2			
Transporter 2 Company Name	8. US ÉPA ID Num			ispariar's Phon		
1		1 1 1 1	The second second	e Trees Read	DESCRIPTION AND LABOUR VIEW AND	
Designated Facility Name and Site Address	10. US EPA ID Num	ber	200	and the same	A COLUMN TO A COLU	
LORCO			F. Tra	nsparier's Phon		
ROI POBOSA			1000	e Facility of 10		
OID BURY NJ GORD	MIDIORIUM	INDIPATED	78 4 7 W 10 10 10 10 10 10 10 10 10 10 10 10 10		7 3	
2		12. Conta		13.	14.	
<ol> <li>US DOT Description (Including Proper Shipping Name, Hazard C ID Number and Packing Group)</li> </ol>	dass of Division,	No.	Type	Total Quantity	Unit   Wt/Vol	Waste No.
WASK COMBUSTIBLE LIGE	11 N.O.S.	-			1	
X Comborlish Line Artes	143 PHCIII	XYI	77	YINI SIMI	AA	
		14.14	* -	A LATE		
		1				
		1 1 1 1		1111		1 4 7
		1 11				1276
				,,, <del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		seet.
						466
				4414		
	10 mm 1 m		<b>9</b>			
5. Special Handling Instructions and Additional Information	COLUMN TEN TENTRE	. 101.53/6.100/6.13/5.101				2.5.7
* NJ SPECIE WAR			- FA	MA KAL		
**	•			TANHY		
Liver Dist Police					5	
C CENEDATODIS CERTIFICATION. I barabu doctors that the annu	ents of this consignment are	ومريمو والمالية	alu dasa	ribed above by	proper shippin	g name and
D. GENERATOR 3 CENTIFICATION: I flereby declare that the cont	- !	iuny and accurat	ely desc	nding to conflic		
<ul> <li>GENERATOR'S CENTIFICATION: I nereby declare that the control classified, packed, marked, and labeled, and are in all respects government regulations.</li> </ul>	s in proper condition for trai	nsport by highw	ay acco	rding to applica	DIO INTERNATION	eal and natio
government regulations.  If I am a large quantity generator, I certify that I have a program i	in place to reduce the volume	and toxicity of v	ay acco vaste ge	rding to applica	egree I have d	etermined to
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable.	in place to reduce the volume method of treatment, storage	and toxicity of v	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d ich minimizes	letermined to the present a
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is	in place to reduce the volume method of treatment, storage small quantity generator. I ha	and toxicity of v	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d ich minimizes	letermined to the present a
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a second control of the process of the practicable future.	in place to reduce the volume method of treatment, storage small quantity generator. I ha	and toxicity of v	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener	etermined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a state best waste management method that is available to me and	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener	etermined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program i economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a the best waste management method that is available to me and Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener	etermined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program i economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a the best waste management method that is available to me and Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener	letermined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program i economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a sthe best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener <i>Mon</i>	determined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am as the best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener <i>Mon</i>	determined to the present a ration and sel
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am as the best waste management method that is available to me and Printed/Typed Name  7. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have d lich minimizes ny waste gener <i>Mon</i>	th Day Y
classified, packed, marked, and labeled, and are in all respect government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am as the best waste management method that is available to me and Printed/Typed Name  7. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.  Signature  Signature	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respect government regulations.  If I am a large quantity generator, I certify that I have a program i economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am as the best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.  Signature  Signature	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a state best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.  Signature  Signature	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a state best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.  Signature  Signature	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a stree best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I ha that I can afford.  Signature  Signature	and toxicity of v or disposal currier made a good	ay acco vaste ge ently av	rding to applica nerated to the d allable to me wh	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am a stree best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials  Printed/Typed Name	in place to reduce the volume method of treatment, storage small quantity generator. I hat that I can afford.    Signature     Signature     Signature	asport by highw and toxicity of v , or disposal currive made a good	ay acco vaste ge ently av faith effo	rding to applica nerated to the d ailable to me wh ort to minimize n	egree I have dich minimizes ny waste gener Mon Mon	th Day Y
classified, packed, marked, and labeled, and are in all respects government regulations.  If I am a large quantity generator, I certify that I have a program is economically practicable and that I have selected the practicable future threat to human health and the environment; OR, if I am as the best waste management method that is available to me and Printed/Typed Name  17. Transporter 1 Acknowledgement of Receipt of Materials  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Materials  Printed/Typed Name  19. Discrepancy Indication Space	in place to reduce the volume method of treatment, storage small quantity generator. I hat that I can afford.    Signature     Signature     Signature	asport by highw and toxicity of v , or disposal currive made a good	ay acco vaste ge ently av faith effo	rding to applica nerated to the d ailable to me wh ort to minimize n	egree I have dich minimizes ny waste gener Mon Mon	the present a ration and sel



## State of New Jersey Department of Environmental Protection Hazardous Waste Regulation Program Manifest Section



Crype or print in block letters. (Form designed for use on	N 421, Trenton, NJ 08		Form App	royed OMR No	. 2050-0039. Expires 9-30-96
والمناوي والمناوي والمناوي والمناوي والمناوي والمناوي والمناول والمناوي والمناوي والمناوي والمناوي والمناوي	ator's US EPA ID No.	Manifest No.	2. Page 1	Informatio	n in the shaded areas juired by Federal law.
Many Party Classificated Particy: IS	nucs Commond Ide 173 nmouth, NO 07703		N		nt Number 199899 ien. Site Address)
Ansporter 1 Company Name  AUMBE EXPRESS  Transporter 2 Company Name	6. US EPA IC 8. US EPA IC	07380	D. Transpo	Decal No rter's Phone (4 ans. ID-NJDEP	73987
Designated Facility Name and Site Address LOKCV RP1, P.O.Boy 5A	10. US EPA II		F. Transpo G. State Fa	Decal No rter's Phone ( acility's ID	
US DOT Description (Including Proper Shipping Name, F. ID Number and Packing Group)	Azard Class or Division,	12. Cont	ainers		14. Unit Waste No.
X COMBUSTIBLE LIQUID, A	LIQUID, N.O.S.	III XIXII		Quantity V	6 X 72 2
					_   .   .   .   .
Additional Descriptions for Materials Listed Above			K. Handlir	ng Codes for W	astes Listed Above
С.			a	1	e 1 L
Special Handling Instructions and Additional Information  *** F. J. Special Wask*  ***License Plake**	# ARID.T	BIHC.	<b>₹</b> 700	TANA 1 Tanh 2 TANA 3	980 Gol 320 Gol 300 Gol 40 Gol
GENERATOR'S CERTIFICATION: I hereby declare that classified, packed, marked, and labeled, and are in all government regulations.  If I am a large quantity generator, I certify that I have a peconomically practicable and that I have selected the prafuture threat to human health and the environment; OR,	respects in proper condition to program in place to reduce the validation method of treatment, so if I am a small quantity generated	or transport by highwood olume and toxicity of torage, or disposal cui	vay according waste genera rently availat	to applicable ated to the degre ale to me which	international and national ee I have determined to be minimizes the present and
Printed Typed Name  Printed Typed Name  Transporter 1 Acknowledgement of Receipt of Materials	Signature	50	*		Month Day Year
Printed Typed Name  Printed Typed Name  Transporter 2 Acknowledgement of Receipt of Materials	Signature	1 h	4		Magin Day Year
Printed/Typed Name  Discrepancy Indication Space	Signature				Month Day Year
. Diec. spansy materials space					
Facility Owner or Operator: Certification of receipt of ha     Printed/Typed Name     .	zardous materials covered by the Signature	nis manifest except as	noted in Iter	n 19.	Month Day Year
Form \$700-22 (Rev. 9/88) Previous editions are obsolete	SIGNATUR	RE AND INFORMA	TION MUS	ST 5	E ON ALL COPIES

#### **NON-HAZARDOUS WASTE MANIFEST**

WASTE MANIFEST	1. Generator's US EPA ID No.	xx20978		Manifest Document No.	007	2. Page 1 of
3. Generator's Name and Mailing Address US Grmy Commun Charles Watt Araci			d			
Chat his word Arriva	Clo Jai Fall	lon, BV5 173	_ ,,=	07703		
4. Generator's Phone (732) 532- 5. Transporter 1 Company Name	6.	US EPA ID Number	C W	A. State Trans	porter's ID TA 3	76
Fiel Tank Maintan	ianze Survice	NJ01577176	46		1 Phone 201-44	0-7672
7. Transporter 2 Company Name	8.	US EPA ID Number		C. State Trans	porter's ID	
9. Designated Facility Name and Site Address	10.	US EPA ID Number		D. Transporter  E. State Facility		<del></del>
New YORK (), I Rue				C State Facility	7510	
New York Oil Rug 94 Haugman Sta Brooklyn My 112	rent	1 - 6 - 11 - 12 - 12	,	F. Facility's Ph		
5 res Klyn NY 112	122 1	140 381141372		2718	) 599-512	
TI. WASTE DESCRIPTION			No.	ntainers Type	13. Total Quantity	14. Unit Wt./Vol
a.			001			<del>                                     </del>
wat oilles	1/2 1 -11	1. L - AND.2	1 1	TT	1750	$\langle   G \rangle$
Waste O.I CNas	1 Windustris	14 MIGUICI NOTFICE	10		.1 120	<u> </u>
			1			}
c.					•	
•						
d.						
F. Additional Descriptions for Materials Listed Abo	ove		<u>.l</u>	G. Handling Co	des for Wastes Listed Abov	<del>l</del>
1 1 10 10 1	3. Homs			-		
Liquel Tank (	JU HOND					
U						
					·	
15. Special Handling Instructions and Additional I					·	
15. Special Handling Instructions and Additional I		5		·.		·
		5				
		5				
16. GENERATOR'S CERTIFICATION: I hereby	certify that the contents of this shi	pment are fully and accurately describe	d and are in	all respects		
NIT Dixig! No. 5	certify that the contents of this shi	pment are fully and accurately describe	d and are in regulations.	all respects		
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material	certify that the contents of this shi	ipment are fully and accurately describe not subject to federal hazardous waste	nd and are in regulations.	all respects		Date  The Day Year
16. GENERATOR'S CERTIFICATION: I hereby	certify that the contents of this shi	pment are fully and accurately describe	id and are in regulations.	all respects  7. Fa	Olm 2	
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  TOGOPH F9 1100  17. Transporter 1 Acknowledgement of Receipt of	certify that the contents of this shi	ipment are fully and accurately describe not subject to federal hazardous waste of Signature	ad and are in regulations.	all respects	Olon Z	th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  Toggin Fallon	certify that the contents of this shi	ipment are fully and accurately describe not subject to federal hazardous waste	ed and are in regulations.	all respects	Olm Z	th Day Year Date th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  TOGOPH F9 1100  17. Transporter 1 Acknowledgement of Receipt of	certify that the contents of this shi is described on this manifest are n	ipment are fully and accurately describe not subject to federal hazardous waste of Signature	d and are in regulations.	all respects	llen 2	th Day Year   27   98
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  TOGOPH FG IION  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name	certify that the contents of this shi is described on this manifest are n	ipment are fully and accurately describe not subject to federal hazardous waste of Signature	ad and are in regulations.	all respects	llen 2	th Day Year    Z7   98  Date th Day Year  Date
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  703cph F9/lon  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Printed/Typed Name	certify that the contents of this shi is described on this manifest are n	pment are fully and accurately describe not subject to federal hazardous waste of Signature  Signature	d and are in regulations.	n. Fa	Slen 2	th Day Year 27 98 Date th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  TOJUPH FG // ON  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name	certify that the contents of this shi is described on this manifest are n	pment are fully and accurately describe not subject to federal hazardous waste of Signature  Signature	ad and are in regulations.	all respects	Slen 2	th Day Year 27 98 Date th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  703cph F9/lon  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Printed/Typed Name	certify that the contents of this shi is described on this manifest are n	pment are fully and accurately describe not subject to federal hazardous waste of Signature  Signature	ed and are in regulations.	n. Fa	Slen 2	th Day Year 27 98 Date th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  703cph F9/lon  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Printed/Typed Name	certify that the contents of this shi is described on this manifest are not materials	pment are fully and accurately describe not subject to federal hazardous waste of Signature    Signature   Signatu	egulations.	all respects	Slen 2	th Day Year 27 98 Date th Day Year
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  Totach Fg IIon  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Printed/Typed Name  19. Discrepancy Indication Space	certify that the contents of this shi is described on this manifest are not materials	priment are fully and accurately describe not subject to federal hazardous waste of Signature  Signature  Signature	egulations.	all respects	Mon  Mon	th Day Year  Date th Day Year  Date th Day Year  Date
16. GENERATOR'S CERTIFICATION: I hereby in proper condition for transport. The material Printed/Typed Name  TOBUPH FG IION  17. Transporter 1 Acknowledgement of Receipt of Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Printed/Typed Name  19. Discrepancy Indication Space	certify that the contents of this shi is described on this manifest are not materials	pment are fully and accurately describe not subject to federal hazardous waste of Signature    Signature   Signatu	egulations.	all respects	Slen 2	th Day Year  Date th Day Year  Date th Day Year

#### **NON-HAZARDOUS WASTE MANIFEST**

leas	print or type (Form designed for use on elite (12 p	nich) typewriter)					
	WASTE MANIFEST	. Generator's US EPA ID No. NJ 2210020			Manifest Document No.	008	Page 1 of 1
J	3. Generator's Name and Mailing Address US Army Communication Charles Wood Area, c/ Attn: SELFM-PW-EV, Fo	s Electronics	s Command				
	Charles Wood Area, c/ Attn: SELFM-PW-EV, Fo	o Joseph Fall rt Monmouth,	lon, B1dg. 17: NJ 07703	3			
	4. Generator's Phone ( 732 532-622	3				·.	
3	5. Transporter 1 Company Name Fuel Tank Maintenance	Service   Inc	US EPA ID Number  . NJD1577176	46	A. State Trans B. Transporter	700111	-7672
ď	7. Transporter 2 Company Name	8.	US EPA ID Number		C. State Trans		1.00
7	Designated Facility Name and Site Address	10.	US EPA ID Number		Transporter     E. State Facilit	2 Phone	ing property
4	New York Oil Recovery		OO EFA ID HOMBOI		E. State Paciet	y s iu	
	94 Hausman Street Brooklyn, NY 11222	ı N'	YD981141872		F. Facility's Ph	one ) 599-5120	
_}	11. WASTE DESCRIPTION			Co	ntainers // 1.0	13. Total	illa:
	··			No.	Туре	Ouantity	Wt./Val.
	Waste Oil (NOS) Combu	stible Liquio	d NA1270	001	TТ	349	G
G	b. ·						
				-			
R	c.						
	•			l i			
Ř	d.						
	F. Additional Descriptions for Materials Listed Above				G. Handling Co	odes for Wastes Listed Above	
e: : 4	Liquid Tank Bottoms						
~ =	15. Special Handling Instructions and Additional Inform	ation			-		
Carte	NJ Decal No. SNJ86775				•		
ì							
_							
7	16. GENERATOR'S CERTIFICATION: I hereby certify in proper condition for transport. The materials des	that the contents of this shipmer cribed on this manifest are not su	t are fully and accurately described object to federal hazardous waste n	d and are in egulations.	ali respects		
							Date
	Printed/Typed Name Joseph Fallon		Signature Danela	m	FO M	Month (73	Day Year
	17. Transporter 1 Acknowledgement of Receipt of Mat	erials	pag.			0.1	Ozate
R A	Printed/Typed Name	EPINS/1	Signature	R	0-	Month 03	20 99
)(	18. Transporter 2 Acknowledgement of Receipt of Mat		1 min	_/\		= 2, 00	Date
)cc-u	Printed/Typed Name		Signature			Month	Pay Year
1	19. Discrepancy Indication Space						
A							
at_7J	20. Facility Owner or Operator, Certification of receipt	of the waste materials covered by	y this manifest, except as noted in i	tem 19.			Date
T	Printed/Typed Name		Signature		<u> </u>	Month	Day Year
ι.			L				

# APPENDIX D UST DISPOSAL CERTIFICATES

TANKS

### Neptune Iron & Metal Recycling Co., Inc.

Ferrous & Non-Ferrous Metals - Container Service 101 MEMORIAL DRIVE at 11th Avenue NEPTUNE, N.J. 07753

(908) 774-4100

	()	
	A DATE	-9£
SOLD TO:	Fort Menon	Xh
ADDRESS:	PHONE:	
OUANTITY	DESCRIPTION	PRICE
•		- 11102
		[
500	165. Heavy lin	1
		ĺ
	@ #2.00/	-
	0/	
	•	1
		{
	\	1
- {	•	ł
j	-	- [
	T.	da 80
1	· ,	M/ 1 UV

REFUND POLICY: Refunds will only be given if we cannot replace wrong or defe Deposits not refundable. Electrical items not returnable.

#### Neptune Iron & Metal Recycling Co., Inc.

Ferrous & Non-Ferrous Metals - Container Service 101 MEMORIAL DRIVE at 11th Avenue

> **NEPTUNE, N.J. 07753** (908) 774-4100

ADDRESS: QUANTITY DESCRIPTION PRICE (1400 IBS. ( \$ 2.00

REFUND POLICY: Refunds will only be given if we cannot replace wrong or de Deposits not refundable. Electrical items not returnable.

Nep	otune Iron & Metal Recycling Co., 1	inc.
	Ferrous & Non-Ferrous Metals - Container Service  101 MEMORIAL DRIVE at 11th Avenue  NEPTUNE, N.J. 07753  (908) 774-4100  DATE	98
SOLD TO:	topt Monmouth	
ADDRESS:	PHONE:	
QUANTITY	DESCRIPTION	PRICE
	Heavy Iron	
-	10,000 lbs at \$2.00 per/hund. 16.	200. <sup>00</sup>
REFUND	POLICY: Refunds will only be given if we cannot replace wrong or defection Deposits not refundable. Electrical items not returnable.	ve part. 01F424

Neptune Iron & Metal Recycling Co., Inc.			
	Ferrous & Non-Ferrous Metals - Container Service 101 MEMORIAL DRIVE at 11th Avenue NEPTUNE, N.J. 07753 (908) 774-4100	PS	
SOLD TO:	FORT Monmonth		
ADDRESS	PHONE:	••	
QUANTITY	DESCRIPTION	PRICE	
8900	Heavy Iron  @ \$ 2.00/hund. 165.	178.00	
REFUND	POLICY: Retunds will <b>only</b> be given if we cannot replace wrong or defect Deposits <b>not</b> retundable. Electrical items <b>not</b> returnable.	ive part. 01F424	

Nep	tune Iron & Metal Recycling Co., Inc.
	Ferrous & Non-Ferrous Metals - Container Service  101 MEMORIAL DRIVE at 11th Avenue  NEPTUNE, N.J. 07753  (908) 774-4100  DATE
SOLD TO:	Part Momenth
AODRESS:	PHONE:
QUANTITY	DESCRIPTION PRICE
1100	O & E 2.00/her Cred
REFUND	POLICY: Refunds will only be given if we cannot replace wrong or defective part.  Deposits not refundable. Electrical items not returnable.

Nep	tune Iron & Metal Recycling Co., In	с.
<del>)                                    </del>	Ferrous & Non-Ferrous Metals - Container Service 101 MEMORIAL DRIVE at 11th Avenue NEPTUNE, N.J. 07753 (908) 774-4100	<del></del>
-	DAIE	<del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>
SOLD TO:	But Warry 11 Min	<u> </u>
ADDRESS:	PHONE:	
QUANTITY	DESCRIPTION	PRICE >
3	tuel tants	
lbs.	(O \$1.00/ 14.00)	2
		4.00
REFLIND	POLICY: Refunds will only be given if we cannot replace wrong or defective	nart

REFUND POLICY: Refunds will **only** be given if we cannot replace wrong or defective part.

Deposits **not** refundable. Electrical items **not** returnable.

D1F424

Nep	tune Iron & Metal Recycling Co., Inc.
SOLD TO:	Ferrous & Non-Ferrous Metals - Container Service  101 MEMORIAL DRIVE at 11th Avenue NEPTUNE, N.J. 07753 (908) 774-4100  DATE  DATE  MOMMONTAL
ADDRESS:	PHONE:
QUANTITY	DESCRIPTION PRICE
11,600	Heavy Dron  182.00 per hund. 232.00
REFUND	POLICY: Refunds will only be given if we cannot replace wrong or defective part.  Deposits not refundable. Electrical items not returnable.  01F424

Nep	tune Iron & Metal Recycling Co., I	nc.
SOLD TO:	Ferrous & Non-Ferrous Metals - Container Service  101 MEMORIAL DRIVE at 11th Avenue NEPTUNE, N.J. 07753 (908) 774-4100  DATE  OR  OR  OR  OR  OR  OR  OR  OR  OR  O	98
ADDRESS:	PHONE	-
QUANTITY	DESCRIPTION	PRICE .
8100	Heavy Iron at \$2.00 per/hund 165.	162 —
REFUND	POLICY: Refunds will only be given if we cannot replace wrong or defect Deposits not refundable. Electrical items not returnable.	tive part.

## APPENDIX E CONTAMINATED SOIL WEIGH TICKETS

## APPENDIX F SOIL ANALYTICAL DATA PACKAGE

#### Report of Analysis

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

Client:

U.S. Army

Lab. 1D#:

3414

DPW. SELFM-PW-EV

Ft. Monmouth, NJ 07703

Date Rec'd:

17-Mar-98

Bidg. 173

Analysis Start:

18-Mor-98 19-Mar-98

Analysis:

OQA-QAM-025

UST Reg. #:

Analysis Complete:

Matrix:

Soil

Closure #:

Analyst:

D.DEINHARDT

DICAR#:

Ext. Moth:	Shako	var 144 bir 14		2700		
Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
8414.01	PS-1	1.00	15.67	81.54	184	405.20
3414.02	PS-2	1.00	15.45	84.86	179	412.09
3414.03	PS-3	1.00	15.27	87.99	175	ND
METHOD BLANK	18-Mar-98	1.00	15.00	100.00	157	ND

ND = Not Detected

. MDL = Method Detection Limit

Daniel K. Wright

Laboratory Director

1.

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

Client :

U.S. Army

Lab. ID#:

3438

DPW. SELFM-PW-EV

Date Rec'd:

27-Mar-98

Bldg. 173

Analysis Start:

27-Mar-08

Ft. Monmouth, NJ 07703

Analysis Complete:

28-Mar-98

Analysis:

OQA-QAM-025

UST Reg. #:

Matrix:

Soil

Closure#;

Analyst:

D.DEINHARDT

DICAR #:

Ext. Meth:	Shako			B. 1220/ 2700		
Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
3488.01	2700-1	1.00	15.67	83.06	90	ND
\$488.02	2700-2	1.00	15.03	83.64	93	ND
3438.03	2700-3	1.00	15.48	85.21	89	264.00
3438.04	2700-4	1.00	15.04	82.37	95	ND
3438.05	2700-5	1.00	15.16	78.18	99	ND
3438.06	2700-6	1.00	15.10	85.05	91	ND
METHOD BLANK	27-Mar-98	1.00	15.00	100.00	157	ND

ND = Not Detocted

. MDL = Method Detection Limit

Daniel K. Wright

Laboratory Director

## APPENDIX G GROUNDWATER ANALYTICAL DATA PACKAGE

### FORT MONMOUTH ENVIRONMENTAL

### **TESTING LABORATORY**

**DIRECTORATE OF PUBLIC WORKS** 

PHONE: (732)532-6224 FAX: (732)532-3484

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

**NJDEP LABORATORY CERTIFICATION # 13461** 



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

#### **BLDG. 2700**

Field Location No. & Laboratory		Matrix	Date and Time	Date Received
Location	Sample ID#		Of Collection	
Trip Blank	4052.01	Aqueous	13-Nov-98	11/13/98
Field Blank	4052.02	Aqueous	13-Nov-98 09:30	11/13/98
Bldg. 2700 8-11'	4052.03	Aqueous	13-Nov-98 10:00	11/13/98
Field Dup	4052.06	Aqueous	13-Nov-98	11/13/98

ANALYSIS: FORT MONMOUTH ENVIRONMENTAL LAB. VOA+15, BN+15

Daniel Wright/Date
Laboratory Director

ENCLOSURE: CHAIN OF CUSTODY FIELD DOCUMENTATION RESULTS

### **Table of Contents**

Section	Pages Pages
Chain of Custody	1-2
Field Documentation	3-5
Methodology Review	6-7
Conformance/Non-Conformance Summary	8-10
Laboratory Chronicle	11-12
Volatile Organics	13-14
Analytical Results Summary	15-24
Tune Results Summary	25-28
Method Blank Results Summary	29
Calibration Summary	30-33
Surrogate Recovery Summary	34
MS/MSD Results Summary	35-36
Internal Standard Area & RT Summary	37
Chromatograms	38-47
Base Neutrals	48
Analytical Results Summary	49-60
Tune Results Summary	61-64
Method Blank Results Summary	65
Calibration Summary	66-70
Surrogate Recovery Summary	71
MS/MSD Results Summary	72
Internal Standard Area & RT Summary	73-74
Chromatograms	75-82
Laboratory Deliverables Checklist	83
Laboratory Authentication Statement	84

## CHAIN OF CUSTODY

## Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil
NJDEP Certification #13461

### **Chain of Custody Record**

	<i>3</i>	1986						Τ				·				
Customer: CHAS. APPLEBY/VERSAR		Project No:			Analysis Parameters							Comments:				
Phone #: x 26 224		Location: 8	3cags 2:	700		,	•									
( )DERA ( )OMA ( )Other:		270 + 27/		V A +	BN											
Samplers Name /	/ Con	npany:				Sample	.#		+							
Lab Sample I.D. Sample Location		Date	Time	Туре	bottles	15	15							Remarks / Preservation Method		
40,52.	/	TRIP	BLANK	11-13 gg		AQ.	2	×								LICL
	2	FIELD	BLANK	11	930	11	3	×	×							HOL/2402
<del></del>	3	BLDG.	2700-8-11	11	1000	- (1	91	×	×						<u></u>	11
	4	BLOG,	270 = 8-11'	<b>\'</b>	1450	(t	<i>h</i> .	×	X		L					11
2	5	BLDG.	271-13-15'	l)	1515	11	11	×	X							11
	6	FIELD	DUP	11		11	11	×	X	ļ						[1
							<u></u>	<u> </u>								
Relinquished by (signature):  Date/Time:  Received by (signature):  1540		signature):	Relinquished by (signature):			):	Date/	Date/Time: Received by (signature):			(signature):					
Relinquished by (signature):  Date/Time:		Received by (signature): Relin		quished by (signature):		):	Date/Time: Received by (s		ved by	(signature):						
Report Type: (_)Full, (YReduced, (_)Standard, (_)Screen / non-certified				Rema	rks:											
Furnaround time: (Standard 4 wks, () Rush Days, () ASAP Verbal Hrs.																

# FIELD DOCUMENTATION

## Post Remedial Groundwater Sampling at Former Underground Storage Tank Site [ # 2 fuel oil ]

#### FOR BLDG. # 2700

Ground Water Sampling with the use of a Passively Placed Narrow Diameter Point (PPNDP)

#### Objective:

To collect a representative groundwater sample utilizing a narrow diameter point [PPNDP] This is a small diameter [1-inch OD] screened casing passively placed in a borehole. The casing is of p.v.c. construction.

#### 1. Methods

A. A solid push - rod (bull point) is used to create a narrow diameter hole to a depth below the water table. A piece of schedule 40 PVC screen with 0.010-inch slots and an end cap is placed to the bottom of the hole. Glues or adhesives are not used for joining the casing. Threaded PVC casing is used. No filter or gravel pack is used.

#### 2. Installation

- A. Using a Geoprobe, a borehole was advanced with a pre-probe with a diameter slightly larger than the casing. The hole was made to a depth of 12 feet. The water table was at 9 feet below ground surface.
- B. The screened section of PVC was placed into the borehole so the screened section was across the ground water table from 7 12 feet. Riser casing from 7 +3 feet.

#### 3. Purging

A. Three volumes of the standing water in the point were purged. The amount of water extracted was app. 0.123 gal. Three to five volumes are purged due to the potential for cross contamination of the screen from upper soil horizons. This was accomplished utilizing a peristaltic pump, and utilizing food grade tubing.

#### 4. Sampling

A. Sampling methods, sample preservation requirements, sample handling times, decontamination procedure for field equipment, and frequency for field blanks, field duplicates and trip blanks conform to applicable industry methods such as those specified in the NJDEP "Field Sampling Procedures Manual" in effect as of the date on which sampling is performed. Any deviations from the methods in the "Field Sampling Procedures Manual" pursuant to N.J.A.C. 7:26E-1.6(c) has been approved by the person responsible for conducting the remediation.

All samples were preserved in the field immediately after collection and submitted to the laboratory as soon as possible and no later than 48 hours after sample collection.

The acquisition of samples and water level measurements were performed as recommended and described in the May 1992 edition of NJDEP Field Sampling Procedures Manual.

#### 5. Quality Assurance/Quality Control

#### A. Decontamination

The associated equipment (bull point, riser pipe, etc.) was decontaminated between borings using the following procedure:

- 1. Remove all adherent soil material.
- 2. Wash with a laboratory grade glassware detergent.
- 3. Rinsed with potable water.
- 4. Rinse with distilled and deionized ASTM Type II water.

#### B. Field Blanks

- 1 Field blank was taken at this location.
- C. Sample bottles: Supplied by Environmental Sampling Supply, Oakland, Calif. The sample bottles are certified clean and are sealed upon delivery.

Mashim 12-2-98 Mark Laura / Date

D. P.V.C. Screens: Supplied by Bedrock Enterprises, Forked River N.J.

Geoprobe Operator: Mark Laura

Employer: U.S. Army, Fort Monmouth

Phone Number: [732] 532-8990

NJDEP License #: J-1486

0005

# METHODOLOGY SUMMARY

#### **Methodology Summary**

## EPA Method 624 Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5 ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

# EPA Method 3510/8270 Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to a measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene Chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

# CONFORMANCE/ NON-CONFORMANCE SUMMARY

#### GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

			Indicate Yes, No, N/A
1.	Chromatograms lal	beled/Compounds identified	
		s and method blanks)	Yes
2.	Retention times for	chromatograms provided	400
3.	GC/MS Tune Spec	ifications	•
	<b>a</b> _	BFB Meet Criteria	1100
	b.	DFTPP Meet Criteria	POST
4.	GC/MS Tuning Fro	equency – Performed every 24 hours for 600	
	series and 12 hours	s for 8000 series	-ycs
5.		n – Initial Calibration performed before sample	
		using calibration performed within 24 hours of	\ 0.05
	sample analysis for	600 series and 12 hours for 8000 series	40
6.	GC/MS Calibration	n requirements	·
	a.	Calibration Check Compounds Meet Criteria	Vas
	b.	System Performance Check Compounds Meet Criteria	Yes
7.	Blank Contamination	on - If yes, List compounds and concentrations in each blank:	<u> </u>
	<b>a</b> .	VOA Fraction	
		B/N Fraction	
	c.	Acid Fraction NA	
8.	Surrogate Recoveri	es Meet Criteria	yes
	If not met, list outside the acc	those compounds and their recoveries, which fall ceptable range:	•
	a.	VOA Fraction	
	ъ.	B/N Fraction	
	C.	Acid Fraction At A	
	If not met, wer as "estimated"	re the calculations checked and the results qualified?	
9.	Matrix Spike/Matri	ix Spike Duplicate Recoveries Meet Criteria	yes
		se compounds and their recoveries, which fall	<i>t</i>
	outside the accepta	ble range)	
	a.	VOA Fraction	
	ь.	B/N Fraction	
	c.	Acid Fraction NY	

#### 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)	423
	(11 not niet, nist mose compounds, which tan outside the acceptable range)	l
	a. VOA Fraction	
	b. B/N Fraction	
	c. Acid Fraction NO	
11.	Extraction Holding Time Met	425
	If not met, list the number of days exceeded for each sample:	
12.	Analysis Holding Time Met	428
	If not met, list the number of days exceeded for each sample:	'
Add	Field dup performed on 4052.03 Bldg 2700 8-11	
	3-4-55	/
Lab	oratory Manager:Date:Date:	•

# VOLATILE ORGANICS

#### US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEPE # 13461

#### **Definition of Qualifiers**

MDL: Method Detection Limit

J : Compound identified below detection limit
 B : Compound in both sample and blank
 D : Results from dilution of sample

U : Compound searched for but not detected

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

Data File Nam vb02128.d Operator

Skelton

Sample Name Field ID

Vblk65 Vblk65

Date Acquired 17 Nov 98 3:32 pm

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	Oualifier
107028	Acrolein				detected	50	1.85 ug/L	
107131	Acrylonitrile				detected	50	2.78 ug/L	
75650	tert-Butyl alcohol				detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether				detected	nle	0.16 ug/L	
108203	Di-isopropyl ether				detected	nle	0.25 ug/L	
	Dichlorodifluoromethan				detected	nle	1.68 ug/L	
74-87-3	Chloromethane				detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride				detected	5	1.06 ug/L	
74-83-9	Bromomethane				detected	10	1.10 ug/L	
75-00-3	Chloroethane				detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane				detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene				detected	2	0.24 ug/L	
67-64-1	Acetone			· · · · · · · · · · · · · · · · · · ·	detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide				detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride				detected	2	0.43 ug/L	
156-60-5	trans-1,2-Dichloroethene				detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane				detected	70	0.13 ug/L 0.12 ug/L	
108-05-4	Vinyl Acetate				detected	nle	0.78 ug/L	
78-93-3	2-Butanone	-			detected	300	0.73 ug/L 0.62 ug/L	
18-23-3	cis-1,2-Dichloroethene			<del></del>	detected	10	0.02 ug/L 0.17 ug/L	
67-66-3	Chloroform				detected	6	0.17 ug/L 0.30 ug/L	
75-55-6	1,1,1-Trichloroethane				detected	30	0.30 ug/L 0.23 ug/L	
56-23-5	Carbon Tetrachloride				detected	2	0.23 ug/L 0.47 ug/L	
71-43-2	Benzene				detected	1	0.47 ug/L 0.23 ug/L	
107-06-2	1,2-Dichloroethane	-			detected	2	0.23 ug/L 0.18 ug/L	
79-01-6	Trichloroethene				detected	1	0.18 ug/L 0.23 ug/L	
78 <b>-</b> 87-5	1,2-Dichloropropane				detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane				detected	1	0.40 ug/L 0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe		_		detected	nle	0.55 ug/L 0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene				detected	nle	0.69 ug/L	-
108-10-1	4-Methyl-2-Pentanone				detected	400	0.59 ug/L	
108-88-3	Toluene	-			detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope				detected	nle	0.37 ug/L 0.87 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene				detected	1	0.48 ug/L 0.32 ug/L	
591-78-6	2-Hexanone				detected	nle	0.32 ug/L 0.71 ug/L	
126-48-1	Dibromochloromethane				detected	10	0.71 ug/L 0.86 ug/L	
108-90-7	Chlorobenzene	-			detected	4	0.80 ug/L 0.39 ug/L	
100-41-4	Ethylbenzene				detected	700	0.59 ug/L 0.65 ug/L	
1330-20-7	m+p-Xylenes				detected	nle	1.14 ug/L	
1330-20-7	o-Xylene	-			detected	nle	0.62 ug/L	
100-42-5	Styrene				detected	100	0.62 ug/L 0.56 ug/L	
75-25-2	Bromoform				detected	4	0.36 ug/L 0.70 ug/L	
75-23-2 79-34 <b>-</b> 5	1,1,2,2-Tetrachloroethan				detected			
						2	0.47 ug/L	$\dashv$
541-73-1	1,3-Dichlorobenzene 1,4-Dichlorobenzene				detected detected	600	0.55 ug/L	-
106-46-7						75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene	<u> </u>	CDOLL	not	detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

VOLA7 TENTATIVELY IDENTIFIED COMPOUNDS

1E

TILE ORGANICS ANALYSIS DATA SHEET	FIELD ID
NEATHER COMPONIES	

Lab Name:	FMETL			Project	980932		Vblk6	i5
NJDEP#	13461	Cas	se No.: 4052	_ SDG N	0	Loc	ation UST	
Matrix: (soil/	water)	WATER		La	b Sample	ID: V	/blk65	
Sample wt/v	ol:	5.0	(g/ml) ML	La	b File ID:	<u>v</u>	/B02128.D	
Level: (low/	med)	LOW		Da	ate Receiv	/ed: <u>1</u>	1/12/98	
% Moisture:	not dec.			Da	ite Analyz	ed: 1	1/17/98	
GC Column:	HP5M	S ID: 0.2	25 (mm)	Di	lution Fac	tor: 1	.0	
Soil Extract	Volume:		_ (uL)	Sc	il Aliquot	Volum	ie:	(uL)
Number TIC	s found:	0		CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L				
CAS NO.		COMPOU	ND NAME		RT	EST	. CONC.	Q

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

Data File Nam vb02143.d Operator Skelton Sample Name

4052.01 Trip Blank

Date Acquired 18 Nov 98 3:00 am

Field ID Sample Multiplier

1

					Regulatory Level		
CAS#	Compound Name	R.T.	Response	Result	(ug/l)*	MDL	Qualifier
107028_	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78_ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene	-		not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37_ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71_ug/L	
	Dibromochloromethane			not detected	10	0.71 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.47 ug/L 0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.57 ug/L 0.64 ug/L	
23-3U-1		<del></del>	57071	and Ground Water Quality Criteri			

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID	)
----------	---

Lab Name:	FMETL			Project	980932		Trip BI	lank	
NJDEP#	13461	Са	se No.: 4052	SDG	No	Loc	ation US	T	
Matrix: (soil/	water)	WATER	-		Lab Sample	D: 4	052.01		
Sample wt/v	ol:	5.0	(g/ml) ML		Lab File ID:	<u> </u>	/B02143.D		
Level: (low/i	med)	LOW	_		Date Recei	ved: <u>1</u>	1/12/98		
% Moisture:	not dec.				Date Analyz	zed: <u>1</u>	1/18/98		
GC Column:	HP5M	S ID: 0.2	25 (mm)		Dilution Factor: 1.0				
Soil Extract	Volume:	<del></del>	(uL)		Soil Aliquot	Volum	ne:	(uL)	
				CONCENTE	RATION UN	ITS:			
Number TIC	s found:	0	<del></del>	(ug/L or ug/Kg) UG/L					
CAS NO.		COMPOL	JND NAME		RT	EST	. CONC.	Q	

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

Data File Nam vb02144.d

144.d

Operator Skelton

Sample Name Field ID 4052.02 Field Blank

Date Acquired 18 Nov 98 3:45 am

Sample Multiplier

- :-

					Regulatory Level		
CAS#	Compound Name	R.T.	Response	Result	(ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01_ug/L	
75 <b>-</b> 69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24_ug/L	
67-64-1	Acetone			not detected	700	1.36_ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride	12.82	77677	2.15 ug/L	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17_ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane		l	not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65_ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
				not detected	75	0.57 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	1 /2 !	U.3/ 11/91.1	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Project	980932		Fie	eid Bian	.К
NJDEP#	13461	Ca	se No.: 4052	SDG	SDG No Loc			UST	
Matrix: (soil/	water)	WATER	<u>-</u>	1	Lab Sample	D: 4	4052.02		
Sample wt/vol:		5.0	(g/ml) ML		Lab File ID:	<u>,</u>	VB0214	4.D	_
Level: (low/i	med)	LOW	_	]	Date Recei	ved: _	11/12/98	3	-
% Moisture:	not dec.		ł	Date Analyzed: 11/18/98				_	
GC Column:	HP5M	S ID: 0.2	25 (mm)	!	Dilution Fac	ctor: _	1.0		_
Soil Extract	Volume:		(uL)	;	Soil Aliquot	Volun	ne:		(uL
				CONCENTR	ATION UN	ITS:			
Number TIC:	s found:	0		(ug/L or ug/k	(g) <u>UG</u>	/L			
CAS NO.		COMPOL	IND NAME		RT	EST	Γ. CONO	<b>c</b> .	Q

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

Data File Nam vb02145.d

Sample Name

4052.03 Bldg2700

Operator Skelton
Date Acquired 18 Nov 98 4:30 am

Field ID Sample Multiplier

1

					Regulatory Level		
CAS#	Compound Name	R.T.	Response	Result	(ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
<u>75650</u>	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68_ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	<u> </u>
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24_ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78_ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene	17.20	69012	1.41 ug/L	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane		_	not detected	1	0.40_ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69_ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71_ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14_ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E

### VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			_ Project	980932			ug. 2/u	<u>"</u>
NJDEP#	13461	Case	No.: <u>4052</u>	SDG N	lo	_ Loc	cation	UST	
Matrix: (soil/	water)	WATER		La	b Sample	D: 4	1052.03		
Sample wt/v	ol:	5.0	(g/ml) ML	La	b File ID:	<u> </u>	/B0214	5.D	
Level: (low/	med)	LOW		Da	ate Receiv	ved: 1	11/12/98	8	_
% Moisture:	not dec.			Date Analyzed: 11/18/98				В	_
GC Column:	HP5M	S ID: 0.25	(mm)	Dilution Factor: 1.0					_
Soil Extract	Volume:		(uL)	Sc	oil Aliquot	Volun	ne:		_ (uL)
			C	ONCENTRA	TION UN	ITS:			
Number TIC:	s found:	0	(u	(ug/L or ug/Kg) UG/L					
CAS NO.		COMPOUN	D NAME		RT	EST	r. cond	c.	Q

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

Data File Nam vb02148.d Operator

Skelton

Date Acquired 18 Nov 98 6:44 am

Sample Name Field ID

4052.06

Sample Multiplier

Field Dup

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/I)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane	<del>                                     </del>		not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	<del></del>
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.46 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.10 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone	<b>-</b>		not detected	300	0.62 ug/L	
76-93-3	cis-1,2-Dichloroethene	17.21	80795	1.56 ug/L	10	0.02 ug/L 0.17 ug/L	
67-66-3	Chloroform	17.21	60733	not detected	6	0.17 ug/L 0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	<del> </del>		
	Carbon Tetrachloride				30	0.23 ug/L	
56-23-5	<del></del>			not detected	2	0.47 ug/L	
71-43-2 107-06-2	Benzene			not detected	1	0.23 ug/L	
	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1 1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55_ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone	ļ		not detected	nle	0.71 ug/L	
	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39_ug/L	
100-41-4	Ethylbenzene			not detected_	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene	* 11:-1		not detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E

Lab Name:

## VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID

	TENTATIVELY IDENTIFIE	ED COMPOUNDS			iald Desa
FMETL		Project		ield Dup. 	
13461	Case No.: 4052	SDG No	o	Location	UST

NJDEP# 134 Lab Sample ID: 4052.06 Matrix: (soil/water) WATER 5.0 \_ (g/ml) <u>ML</u> VB02148.D Sample wt/vol: Lab File ID: Date Received: 11/12/98 Level: (low/med) LOW % Moisture: not dec. Date Analyzed: 11/18/98 GC Column: HP5MS 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: 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000119-64-2	Naphthalene, 1,2,3,4-tetrahydro-	27.41	9	JN
2. 000091-20-3	Naphthalene	31.33	19	JN
3. 003877-19-8	Naphthalene, 1,2,3,4-tetrahydro-	31.84	6	JN
4. 006682-71-9	1H-Indene, 2,3-dihydro-4,7-dimet	34.95	5	JN
5. 001680-51-9	Naphthalene, 1,2,3,4-tetrahydro-	35.40	13	JN
6. 001680-51-9	Naphthalene, 1,2,3,4-tetrahydro-	37.38	8	JN

# BASE NEUTRALS

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

Data File Name bna01324.d

Sample Name

Sblk166

Operator

Skelton

Misc Info

Sblk166 A 981115

Date Acquired 20 Nov 1998 1:23 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	GW Criteria	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	2.52 ug/	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64 ug/	
62-53-3	Aniline			not detected	NLE	2.90 ug/	L .
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45 ug/	L .
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65 ug/	L
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50 ug/	L
100-51-6	Benzyl alcohol			not detected	NLE	2.09 ug/	L
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44 ug/	L
108-60-1	bis(2-chloroisopropyl)ether		2	not detected	300	2.96 ug/	L
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	2.22 ug/	L
67-72-1	Hexachloroethane			not detected	10	2.59 ug/	L
98-95-3	Nitrobenzene			not detected	10	2.45 ug/	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54 ug/	L.
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58 ug/	
91-20-3	Naphthalene			not detected	NLE	3.03 ug/	L
106-47-8	4-Chloroaniline			not detected	NLE	2.55 ug/	L
87-68-3	Hexachlorobutadiene			not detected	1	0.64 ug/	L
91-57-6	2-Methylnaphthalene		******	not detected	NLE	2.49 ug/	L
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.59 ug/	L
91-58-7	2-Chloronaphthalene			not detected	NLE	2.15 ug/	Ĺ
88-74-4	2-Nitroaniline		-,	not detected	NLE	1.62 ug/	Ĺ
131-11-3	Dimethylphthalate		mine et di	not detected	7000	2.74 ug/	L
208-96-8	Acenaphthylene			not detected	NLE	2.35 ug/	Ĺ
606-20-2	2,6-Dinitrotoluene		10000000	not detected	NLE	1.54 ug/	
99-09-2	3-Nitroaniline		<u>-</u>	not detected	NLE	1.62 ug/	
83-32-9	Acenaphthene			not detected	400	1.98 ug/	
132-64-9	Dibenzofuran			not detected	NLE	2.13 ug/	

#### Semi-Volatile Analysis Report Page 2

Data File Name bna01324.d

Sample Name

Sblk166

Operator

Skelton

Misc Info

Sblk166 A 981115

Date Acquired 2

20 Nov 1998 1:23 am

Sample Multiplier 1

121-14-2	2,4-Dinitrotoluene		not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate		not detected	5000	1.68	ug/L	
86-73-7	Fluorene		not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether		not detected	NLE	1.53	ug/L	
100-01-6	4-Nitroaniline		not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine		not detected	20	1.73	ug/L	
103-33-3	Azobenzene		not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether		not detected	NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene		not detected	10	1.88	ug/L	
85-01-8	Phenanthrene		not detected	NLE	1.67	ug/L	
120-12-7	Anthracene		not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		not detected	900	1.83	ug/L	
206-44-0	Fluoranthene		not detected	300	1.85	ug/L	
92-87-5	Benzidine		not detected	50	4.11	ug/L	
129-00-0	Pyrene		not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate		not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene		not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine		not detected	60	2.28	ug/L	
218-01-9	Chrysene	ų + mi	not detected	20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate		not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate		not detected	100	1.30	ug/L	-
205-99-2	Benzo[b]fluoranthene		not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene		not detected	2	1.57	ug/L	
50-32-8	Benzo[a]pyrene		not detected	20	1.36	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene		not detected	20	1.22	ug/L	
53-70-3	Dibenz[a,h]anthracene		not detected	20	3.12	ug/L	
191-24-2	Benzo[g,h,i]perylene		not detected	NLE	1.13	ug/L	

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

1F

#### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

**TENTATIVELY IDENTIFIED COMPOUNDS** 

FIELD ID

Lab Name:	FMETL			Lab Co	de 13461		Sblk1	66
Project	980932	Case N	o.: 4052	_ Loca	tion UST	S	DG No.:	
Matrix: (soil/	water)	WATER			Lab Sample	ID:	Sblk166	
Sample wt/v	ol:	1000 (g/	ml) ML		Lab File ID:		BNA01324.D	)
Level: (low/i	med)	LOW			Date Receiv	/ed:	11/12/98	
% Moisture:		decante	d: (Y/N)	N	Date Extrac	ted:	11/15/98	
Concentrate	d Extract	Volume: <u>1000</u>	(uL)		Date Analyz	zed:	11/20/98	
Injection Vol	ume: <u>1.</u>	0 (uL)			Dilution Fac	tor:	1.0	
GPC Cleanu	ip: (Y/N)	NpH:	7					
Number TIC	s found:	1	 1. <b>S</b> s 4		NTRATION ug/Kg)	UNI UG/		
CAS NUM	BER	COMPOUND	NAME		RT	ES	ST. CONC.	Q
1		unknown			26.38		15	1

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

3 1 1 1 1 1

Data File Name bna01331.d

Sample Name

4052.02

Operator

Skelton

Misc Info

Field Blank

Date Acquired 20 Nov 1998 6:16 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Res	ılt	GW Criteria	MDL		Qualifiers
110-86-1	Pyridine		,,	r	ot detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine			r	ot detected	20	2.64	ug/L	
62-53-3	Aniline			Г	ot detected	NLE	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether			r	ot detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			I	ot detected	600	2.65	ug/L	
106-46-7	1,4-Dichlorobenzene			ı	ot detected	75	2.50	ug/L	
100-51-6	Benzyl alcohol		_	r	ot detected	NLE	2.09	ug/L	
95-50-1	1,2-Dichlorobenzene			r	ot detected	600	2.44	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			r	ot detected	300	2.96	ug/L	
621-64-7	n-Nitroso-di-n-propylamine		1	r	ot detected	20	2.22	ug/L	
67-72-1	Hexachloroethane		. AFH 17. 2	· r	ot detected	10	2.59	ug/L	
98-95-3	Nitrobenzene		1.1.1	1	ot detected	10	2.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			est of I	ot detected	NLE	2.54	ug/L	
120-82-1	1,2,4-Trichlorobenzene		2.4.7	int.	ot detected	9		ug/L	
91-20-3	Naphthalene		• •	ria I	ot detected	NLE	3.03	ug/L	
106-47-8	4-Chloroaniline			ı	ot detected	NLE	2.55	ug/L	
87-68-3	Hexachlorobutadiene			r	ot detected	1	0.64	ug/L	
91-57-6	2-Methylnaphthalene		part species	r	ot detected	NLE	2.49	ug/L	
77-47-4	Hexachlorocyclopentadiene			1	ot detected	50	1.59	ug/L	
91-58-7	2-Chloronaphthalene			Т	ot detected	NLE	2.15	ug/L	
88-74-4	2-Nitroaniline		• 4	1	ot detected	NLE	1.62	ug/L	
131-11-3	Dimethylphthalate			1	ot detected	7000	2.74	ug/L	
208-96-8	Acenaphthylene			1	ot detected	NLE	2.35	ug/L	
606-20-2	2,6-Dinitrotoluene	•		1	ot detected	NLE	1.54	ug/L	
99-09-2	3-Nitroaniline			1	ot detected	NLE	1.62	ug/L	
83-32-9	Acenaphthene			1	ot detected	400	1.98	ug/L	
132-64-9	Dibenzofuran		. •	. 1	ot detected	NLE	2.13	ug/L	

#### Semi-Volatile Analysis Report Page 2

Data File Name bna01331.d

Sample Name

4052.02

Operator

Skelton

Misc Info

Field Blank

Date Acquired 20 No

20 Nov 1998 6:16 am

Sample Multiplier 1

121-14-2	2,4-Dinitrotoluene		not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate	*	not detected	5000	1.68	ug/L	
86-73-7	Fluorene		not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether		not detected	NLE	1.53	ug/L	
100-01-6	4-Nitroaniline		not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine		not detected	20	1.73	ug/L	
103-33-3	Azobenzene		not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether	7 1	not detected	NLE	1.54	ug/L	·
118-74-1	Hexachlorobenzene		not detected	10	1.88	ug/L	
85-01-8	Phenanthrene		not detected	NLE	1.67	ug/L	
120-12-7	Anthracene		not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		not detected	900	1.83	ug/L	
206-44-0	Fluoranthene		not detected	300	1.85	ug/L	
92-87-5	Benzidine		not detected	50	4.11	ug/L	
129-00-0	Pyrene		not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate		not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene		not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine		not detected	60	2.28	ug/L	
218-01-9	Chrysene		not detected	20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate		not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate	, no	not detected	100	1.30	ug/L	
205-99-2	Benzo[b]fluoranthene		not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene		not detected	2	1.57	ug/L	
50-32-8	Benzo[a]pyrene		not detected	20	1.36	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene		not detected	20	1.22	ug/L	
53-70-3	Dibenz[a,h]anthracene		not detected	20	3.12	ug/L	
191-24-2	Benzo[g,h,i]perylene		not detected	NLE	1.13	ug/L	

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			_ L	ab Code 13461	Field Blank
Project	980932	Ca	Case No.: 4052		Location UST S	DG No.:
Matrix: (soil/v	water)	WATER			Lab Sample ID:	4052.02
Sample wt/vo	ol:	1000	(g/ml) ML		Lab File ID:	BNA01331.D
Level: (low/r	ned)	LOW			Date Received:	11/12/98
% Moisture:		de	canted: (Y/N)	N	Date Extracted:	11/15/98
Concentrated	d Extract	Volume:	1000 (uL)		Date Analyzed:	11/20/98
Injection Volu	ume: <u>1.</u> 0	0 (uL)			Dilution Factor:	1.0
GPC Cleanu	p: <b>(Y/N)</b>	N	pH: 7			

#### **CONCENTRATION UNITS:**

Number TICs found:	2	(ug/L or ug/Kg)	UG/L		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	unknown	23.22	12	J	
2	unknoum	26.20	20		

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

Data File Name bna01332.d

Sample Name

4052.03

Operator

Skelton

Misc Info

Bldg2700

Date Acquired

20 Nov 1998 6:58 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	GW Criteria	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	2.52 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64 ug/L	
62-53-3	Aniline			not detected	NLE	2.90 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09 ug/L	}
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	2.96 ug/L	
621-64-7	n-Nitroso-di-n-propylamine		( t	not detected	20	2.22 ug/L	
67-72-1	Hexachloroethane		dest	not detected	10	2.59 ug/L	
98-95-3	Nitrobenzene			not detected	10	2.45 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58 ug/L	
91-20-3	Naphthalene			not detected	NLE	3.03 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2.55 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.64 ug/L	
91-57-6	2-Methylnaphthalene		.1	not detected	NLE	2.49 ug/L	
77-47-4	Hexachlorocyclopentadiene		,	not detected	50	1.59 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	2.15 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.62 ug/L	I
131-11-3	Dimethylphthalate			not detected	7000	2.74 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	2.35 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.54 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.62 ug/L	
83-32-9	Acenaphthene		* * .	not detected	400	1.98 ug/L	
132-64-9	Dibenzofuran	1		not detected	NLE	2.13 ug/L	

#### Semi-Volatile Analysis Report Page 2

Data File Name bna01332.d

Sample Name

4052.03

Operator

Skelton

Misc Info

Bldg2700

Date Acquired 20 Nov 1998 6:58 am

Sample Multiplier 1

121-14-2	2,4-Dinitrotoluene		not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate		not detected	5000	1.68	ug/L	
86-73-7	Fluorene		not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether		not detected	NLE	1.53	ug/L	
100-01-6	4-Nitroaniline		not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine		not detected	20	1.73	ug/L	
103-33-3	Azobenzene		not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether		not detected	NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene		not detected	10	1.88	ug/L	
85-01-8	Phenanthrene		not detected	NLE	1.67	ug/L	
120-12-7	Anthracene		not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		not detected	900	1.83	ug/L	
206-44-0	Fluoranthene	·	not detected	300	1.85	ug/L	
92-87-5	Benzidine		not detected	50	4.11	ug/L	
129-00-0	Pyrene		not detected	200		ug/L	
85-68-7	Butylbenzylphthalate		not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene		not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine		not detected	60		ug/L	
218-01-9	Chrysene		not detected	20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate		not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate		not detected	100	1.30	ug/L	
205-99-2	Benzo[b]fluoranthene		not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene		not detected	2		ug/L	
50-32-8	Benzo[a]pyrene		not detected	20	<del> </del>	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene		not detected	20		ug/L	
53-70-3	Dibenz[a,h]anthracene		not detected	20	1	ug/L	
191-24-2	Benzo[g,h,i]perylene		not detected	NLE	<del></del>	ug/L	

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

H	E	LD	ı	D

Lab Name:	FMETL				Lab (	Code '	13461		Bldg2	700
Project	980932	Ca	se No.:	4052	Lo	cation	UST	SI	DG No.:	
Matrix: (soil/	water)	WATER	<del></del>			Lab	Sample	ID:	4052.03	
Sample wt/v	ol:	1000	_ (g/ml)	ML		Lab	File ID:		BNA01332.	)
Levei: (low/i	med)	LOW				Date	Receiv	ed:	11/12/98	
% Moisture:		dec	canted: (	Y/N) _	N	Date	Extract	ed:	11/15/98	
Concentrate	d Extract	Volume:	1000	(uL)		Date	Analyz	ed:	11/20/98	
Injection Vol	ume: <u>1</u> .	0 (uL)				Dilut	ion Fact	tor:	1.0	
GPC Cleanu	ıp: (Y/N)	N	рН: <u>7</u>							
Number TIC	s found:	1				CENTR or ug/K	ATION	UNIT UG/I		
CAS NUM	BER	СОМРО	UND NA	ME			RT	ES	T. CONC.	Q
1.		unknown		3			26.38		17	J

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

Data File Name bna01335.d

Sample Name

4052.06

Operator

Skelton

Misc Info

Field Dup

Date Acquired 20 Nov 1998 9:03 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	GW Criteria	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	2.52 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64 ug/L	
62-53-3	Aniline			not detected	NLE	2.90 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44 ug/L	
108-60-1	bis(2-chloroisopropyl)ether		1.11. A	not detected	300	2.96 ug/L	
621-64-7	n-Nitroso-di-n-propylamine		4) 22 3	not detected	20	2.22 ug/L	
67-72-1	Hexachloroethane		28th \$\$ 45 M 18	not detected	10	2.59 ug/L	
98-95-3	Nitrobenzene			not detected	10	2.45 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54 ug/L	
120-82-1	1,2,4-Trichlorobenzene		77. 5	not detected	9	2.58 ug/L	
91-20-3	Naphthalene		:	not detected	NLE	3.03 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2.55 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.64 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	2.49 ug/L	T
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.59 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	2.15 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.62 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.74 ug/L	
208-96-8	Acenaphthylene		**	not detected	NLE	2.35 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.54 ug/L	
99-09-2	3-Nitroaniline		the law of the	not detected	NLE	1.62 ug/L	
83-32-9	Acenaphthene		ा त्या है	not detected	400	1.98 ug/L	
132-64-9	Dibenzofuran		\$ 20 m	not detected	NLE	2.13 ug/L	

#### Semi-Volatile Analysis Report Page 2

Data File Name bna01335.d

Sample Name

4052.06

Operator

Skelton

Misc Info

Field Dup

Date Acquired

20 Nov 1998 9:03 am

Sample Multiplier 1

121-14-2	2,4-Dinitrotoluene		not detect	d 10	1.22	ug/L	
84-66-2	Diethylphthalate		not detect	ed 5000	1.68	ug/L	
86-73-7	Fluorene		not detect	ed 300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether		not detect	d NLE	1.53	ug/L	
100-01-6	4-Nitroaniline		not detect	d NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine		not detect	d 20	1.73	ug/L	
103-33-3	Azobenzene	-	not detect	d NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether		not detect	d NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene		not detect	ed 10	1.88	ug/L	
85-01-8	Phenanthrene	# 4	not detect	d NLE	1.67	ug/L	
120-12-7	Anthracene		not detect	ed 2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		not detect	ed 900	1.83	ug/L	
206-44-0	Fluoranthene		not detect	ed 300	1.85	ug/L	
92-87-5	Benzidine		not detect	ed 50	4.11	ug/L	
129-00-0	Pyrene		not detect	d 200	1.02	ug/L	
85-68-7	Butylbenzylphthalate		not detect	ed 100	1.15	ug/L	
56-55-3	Benzo[a]anthracene		not detect	ed 10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine		not detect	ed 60	2.28		
218-01-9	Chrysene		not detect	ed 20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate		not detect	ed 30	1.29	ug/L	
117-84-0	Di-n-octylphthalate	* · · · *	not detect	ed 100	1.30	ug/L	
205-99-2	Benzo[b]fluoranthene		not detect	ed 10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene	. i	not detect	ed 2	1.57		
50-32-8	Benzo[a]pyrene		not detect	ed 20	1.36		
193-39-5	Indeno[1,2,3-cd]pyrene	a characteristic	not detect	ed 20	1.22	ug/L	
53-70-3	Dibenz[a,h]anthracene	, to to decide and	not detect	ed 20	3.12	ug/L	
191-24-2	Benzo[g,h,i]perylene	1 - F 100 - F	not detect	ed NLE	1.13		

## Qualifiers

E = Välüe exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

1F

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

<b>TENTATIVELY</b>	IDENTIFIED	COMPOUNDS
, CIX 1/ \     V     C   C		OCIVII OCIVIDO

Field Dup

FIELD ID

Lab Name:	FMETL			_ Lab	Code <u>13461</u>		_ licia bap
Project	980932	C	ase No.: 4052	Lo	ocation <u>UST</u>	S	DG No.:
Matrix: (soil/	water)	WATER	<u> </u>		Lab Sample	ID:	4052.06
Sample wt/ve	ol:	1000	(g/ml) ML		Lab File ID:		BNA01335.D
Level: (low/r	ned)	LOW			Date Receiv	ed:	11/12/98
% Moisture:		de	canted: (Y/N)	N	Date Extrac	ted:	11/15/98
Concentrate	d Extract	Volume:	1000 (uL)		Date Analyz	ed:	11/20/98
Injection Vol	ume: <u>1.</u> 6	0 (uL)			Dilution Fac	tor:	1.0
GPC Cleanu	p: (Y/N)	N	pH: <u>7</u>				
					CENTRATION		
Number TIC:	e tound.	2		/ua/l	or ug/Kg)	HG/	1

	· · · · · · · · · · · · · · · · · · ·			
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	23.22	11_	J
2.	unknown	26.38	24	J

#### 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 <u>and</u> 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	
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	_
4.	Document paginated and legible	
5.	Chain of Custody submitted	
6.	Samples submitted to lab within 48 hours of sample collection	
7.	Methodology Summary submitted	
8.	Laboratory Chronicle and Holding Time Check submitted	
9.	Results submitted on a dry weight basis	
10.	Method Detection Limits submitted	
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	
Lab Dat	oratory Manager of Environmental Consultant's Signature	<b>)</b> —

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

Laboratory Certification #13461

#### **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)532-3484

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

**NJDEP LABORATORY CERTIFICATION # 13461** 



# ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory

ENVIRONMENTAL DIVISION

Fort Monmouth, New Jersey PROJECT: UST Program

Bldg. 2700

Field Location No. &	Laboratory	Matrix	Date and Time	Date Received
Location	Sample ID#		Of Collection	
Trip Blank	4148.01	Aqueous	18-Dec-98	12/18/98
Field Blank	4148.02	Aqueous	18-Dec-98 09:40	12/18/98
Bldg. 2700	4149.01	Aqueous	18-Dec-98 14:55	12/18/98

ANALYSIS: FORT MONMOUTH ENVIRONMENTAL LAB VOA+15, BN+15

Daniel Wright/Date

Laboratory Director

### **Table of Contents**

Section	Pages
Chain of Custody	1-3
Field Documentation	4-6
Methodology Summary	7-8
Conformance/Non-Conformance Summary	9-11
Laboratory Chronicle	12-13
Volatile Organics	14-15
Analytical Results Summary	16-23
Tune Results Summary	24-28
Method Blank Results Summary	29-30
Calibration Summary	31-34
Surrogate Recovery Summary	35-36
MS/MSD Results Summary	37-38
Internal Standard Area & RT Summary	39-40
Chromatograms	41-48
Base Neutrals	49
Analytical Results Summary	50-55
Tune Results Summary	56-58
Method Blank Results Summary	59-60
Calibration Summary	61-62
Surrogate Recovery Summary	63-64
MS/MSD Results Summary	65-66
Internal Standard Area & RT Summary	67-70
Chromatograms	71-79
Laboratory Deliverables Checklist	80
Laboratory Authentication Statement	81

# CHAIN OF CUSTODY

# Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil
NJDEP Certification #13461

## **Chain of Custody Record**

Customer: CHAS	Customer: CHAS APPLERY						Analysis Parameters								Comments:
Phone #: 120	224		Location:	3LDG. 2	2700		V	ער							
()DERA ()OMA (		·		·			V09+	飞							
Samplers Name / Co	mpany:	Money Louis	4 TIV.S.	Auson	Sample		+	+							
Lab Sample I.D.	Sa	mple Location	Date Time Type bottles		e Location Date Time Type bottles		15	15							Remarks / Preservation Method
4149.	BLDG.	2700	12-18-98	1458	AQ.	3	×	×	ļ					:	1100/2400
	· 									ļ					
				<u> </u>											
									<u> </u>	<u> </u>	<b></b>				
-										ļ					
		· · · · · · · · · · · · · · · · · · ·	<del></del>	· · ·											
										ļ					
			<del></del>								]				
	<u> </u>		:						<u> </u>						
Relinquished by (signatu	re):	Date/Time: 12-18-98 /515	Received by	(signature):	112	Relino	quished	by (sig	nature)	):	Date/	Time:	Recei	ved by	(signature):
					Relino	quished	by (sig	gnature	):	Date/	Time:	Recei	ved by	(signature):	
Report Type: (_)Full, () Turnaround time: (_)Stan			en / non-certifi ; (_)ASAP Ve		·		Rema	ks:	SUAR	ŒŌ		F. B. 16 DAI		14 E	31-06. 75
Zemi	COLUMN TO THE	Days	,	111	IJ.										

Turn

# Fort Monmouth Environmental Testing Laboratory

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

Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

## **Chain of Custody Record**

Custon		APPLE	BY VERSAR	Pro	oject No:						Ana	lysis I	aram	eters			Comments:			
Phone #:		X4	<i>'</i>	Loc	eation: Z	81.8G. 74				12							·			
()DERA	(NOMA (	)Other	•	L					YOAY	めん										
Sampler	Name / Cor	npany :	MARK LAURA	7.6	15. PM	507	Sample			+										
	mple I.D.	Sa	mple Location		Date	Time	Туре	bottles	15	15							Remarks / Preservation Method			
4148	/	TUI	BLANK	12-	18-98		AQ.	2	X							HCL				
/	2	74-	1 - 5-9'			1000	11	2	X							He				
	3	١١	- 11			1010	4	1		X							cyoc			
	4	74-	2 -			1041	и	2	X								HCL			
	5	11				1114	1			×							2400			
·	ه	74 -	3 -		<b> </b>	1320	U	2	×								HCL			
	7	н				1430	11			X							2406			
	8	74-	4 -			1330	Ч	2	χ								HCL			
	9	,,,				1345	ч	1		X							2400			
	10	74 -	5 -			1411	Ц	2	X								HCL			
	19	11				1420	11	١		X							2400			
	12	Fieu	bup -	·	ļ	•	11	3	X	X							421/2400			
	13	Field	BLANK			0940	11	3	X	X		٠					HCL/ 24°C			
			<u> </u>														,			
	ed by (signatu	re):	Date/Time:	Rec	eived/by/	(signature):		Relino	quished	by (sig	mature)	):	Date/	Time:	Recei	ved by	(signature):			
Martin 12-18-98 1515 L					<u> </u>	XILL									<u> </u>					
Relinquished by (signature): Date/Time: Recei						Received by (signature): Relinq			quished	by (sig	gnature)	):	Date/Time: Received by			ved by	(signature):			
Report Typ	e: (_)Full, (	Reduced,	(_)Standard, (_)Scre	en/n	on-certifi	ed			Rema	rks:	<del>,,,,,,,,,,,</del>									
Turnaround time: Standard 4 wks, ()Rush Days, ()A							·s									** **				

# FIELD DOCUMENTATION

## Post Remedial Groundwater Sampling at Former Underground Storage Tank Site [ # 2 fuel oil ]

#### FOR BLDG. # 2700

Ground Water Sampling with the use of a Passively Placed Narrow Diameter Point (PPNDP)

#### Objective:

To collect a representative groundwater sample utilizing a narrow diameter point [PPNDP] This is a small diameter [1-inch OD] screened casing passively placed in a borehole. The casing is of p.v.c. construction.

#### 1. Methods

A. A solid push - rod (bull point) is used to create a narrow diameter hole to a depth below the water table. A piece of schedule 40 PVC screen with 0.010-inch slots and an end cap is placed to the bottom of the hole. Glues or adhesives are not used for joining the casing. Threaded PVC casing is used. No filter or gravel pack is used.

#### 2. Installation

- A. Using a Geoprobe, a borehole was advanced with a pre-probe with a diameter slightly larger than the casing. The hole was made to a depth of 12 feet. The water table was at 9 feet below ground surface.
- B. The screened section of PVC was placed into the borehole so the screened section was across the ground water table from 7 12 feet. Riser casing from 7 +3 feet.

#### 3. Purging

A. Three volumes of the standing water in the point were purged. The amount of water extracted was app. 0.123 gal. Three to five volumes are purged due to the potential for cross contamination of the screen from upper soil horizons. This was accomplished utilizing a peristaltic pump, and utilizing food grade tubing.

#### 4. Sampling

A. Sampling methods, sample preservation requirements, sample handling times, decontamination procedure for field equipment, and frequency for field blanks, field duplicates and trip blanks conform to applicable industry methods such as those specified in the NJDEP "Field Sampling Procedures Manual" in effect as of the date on which sampling is performed. Any deviations from the methods in the "Field Sampling Procedures Manual" pursuant to N.J.A.C. 7:26E-1.6(c) has been approved by the person responsible for conducting the remediation.

All samples were preserved in the field immediately after collection and submitted to the laboratory as soon as possible and no later than 48 hours after sample collection.

The acquisition of samples and water level measurements were performed as recommended and described in the May 1992 edition of NJDEP Field Sampling Procedures Manual.

#### 5. Quality Assurance/Quality Control

#### A. Decontamination

The associated equipment (bull point, riser pipe, etc.) was decontaminated between borings using the following procedure:

- 1. Remove all adherent soil material.
- 2. Wash with a laboratory grade glassware detergent.
- 3. Rinsed with potable water.
- 4. Rinse with distilled and deionized ASTM Type II water.

#### B. Field Blanks

- 1 Field blank was taken at this location.
- C. Sample bottles: Supplied by Environmental Sampling Supply, Oakland, Calif. The sample bottles are certified clean and are sealed upon delivery.
- D. P.V.C. Screens: Supplied by Bedrock Enterprises, Forked River N.J.

Geoprobe Operator: Mark Laura

Employer: U.S. Army, Fort Monmouth

Phone Number: [732] 532-8990

NJDEP License #: J-1486

Mark Laura / Date

# METHODOLOGY SUMMARY

## **Methodology Summary**

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5 ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

EPA Method 3510/8270
Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to a measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene Chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

# CONFORMANCE/ NON-CONFORMANCE SUMMARY

#### GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

			Indicate Yes, No, N/A
1.		led/Compounds identified nd method blanks)	<u>yes</u>
2.	Retention times for c	hromatograms provided	yes
3.	GC/MS Tune Specifi	cations	·
	a. b.	BFB Meet Criteria DFTPP Meet Criteria	yes yes
4.	GC/MS Tuning Frequencies and 12 hours for	uency – Performed every 24 hours for 600 or 8000 series	<u> 485</u>
5.	analysis and continui	- Initial Calibration performed before sample ng calibration performed within 24 hours of 00 series and 12 hours for 8000 series	yes
6.	GC/MS Calibration r	equirements	
	a. b.	Calibration Check Compounds Meet Criteria System Performance Check Compounds Meet Criteria	yes yes
<b>7</b> .	Blank Contamination	a - If yes, List compounds and concentrations in each blank:	yes
	a. b. c.	VOA Fraction  B/N Fraction by 28th hours pathologe @ 27.53 in  Acid Fraction DA	Æ
8.	Surrogate Recoveries	s Meet Criteria	<u>ves</u>
	If not met, list the outside the accept	nose compounds and their recoveries, which fall otable range:	
	a. b. c.	VOA Fraction  B/N Fraction  Acid Fraction	
	If not met, were as "estimated"?	the calculations checked and the results qualified	
9.		Spike Duplicate Recoveries Meet Criteria compounds and their recoveries, which fall e range)	yes
	<b>a.</b>	VOA Fraction	
	Ъ.	B/N Fraction	
	C.	Acid Fraction WA	

#### 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)	400
	a.	VOA Fraction	
	b.	B/N Fraction	
	c.	Acid Fraction NA	
11.	Extraction Holdin	ng Time Met	yes
	If not met, list the	number of days exceeded for each sample:	
12.	Analysis Holding	Time Met	yes
	If not met, list the	number of days exceeded for each sample:	V
Add	itional Comments:		
Labo	oratory Manager:	Date: 2-5-44	

# VOLATILE ORGANICS

# US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEPE # 13461

#### **Definition of Qualifiers**

**MDL**: Method Detection Limit

J : Compound identified below detection limit
B : Compound in both sample and blank
D : Results from dilution of sample

U: Compound searched for but not detected

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

Data File Nam vb02437.d Operator Skelton

Sample Name

Sample Name Vblk76 Field ID Vblk76

1

Date Acquired 28 Dec 98 9:59 am

Sample Multiplier

					Regulatory Level		
CAS#	Compound Name	R.T.	Response	Result	(ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	<u> </u>
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1.1.1-Trichloroethane		-	not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride		_	not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	$\frac{1}{1}$	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	i	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
				not detected	4		
75-25-2	Bromoform	_			<del> </del>	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

<sup>\*</sup> Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Project	980932		_ L <b>`</b>	/DIK/6	
NJDEP#	13461	Ca	se No.: 4149	SDG I	No	_ Lo	ocation	UST	
Matrix (soil/w	/ater)	WATER	_	L	.ab Sample	ID:	Vblk76		
Sample wt/vo	ol:	5.0	(g/ml) ML	L	.ab File ID:		VB0243	7.D	_
Level: (low/n	ned)	LOW	_		Date Receiv	/ed:	12/18/98	3	_
% Moisture: r	not dec.			Ε	Date Analyz	ed:	12/28/98	3	<del>-</del>
GC Column:	HP5M	S ID: 0.	25 (mm)		Dilution Fac	tor:	1.0		_
Soil Extract V	olume:		_ (uL)	8	Soil Aliquot	Volu	me:		_ (uL)
				CONCENTRA	ATION UNI	TS:			
Number TICs	s found:	0		(ug/L or ug/K	g) UG/	/L			
CAS NO.		COMPOL	IND NAME		RT	ES	ST. CONC	<b>5</b> .	Q

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

Data File Nam vb02450.d

Operator

Skelton

Date Acquired 28 Dec 98 8:25 pm

Sample Name

Field ID

4148.01 Trip Blank

Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein	1010	Responde	not detected	50	1.85 ug/L	Quantier
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.16 ug/L 0.25 ug/L	<del>                                     </del>
100203	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.08 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.16 ug/L	<del></del>
74-83-9	Bromomethane			not detected	10	1.10 ug/L	<del></del>
75-00-3	Chloroethane			not detected	nle		
75-69-4	Trichlorofluoromethane			not detected		1.01 ug/L	<del></del>
75-35-4	1,1-Dichloroethene			not detected	nle	0.50 ug/L	
67-64-1	Acetone			not detected	2	0.24 ug/L	
75-15-0	Carbon Disulfide				700	1.36 ug/L	
75-13-0 75-09-2	Methylene Chloride			not detected not detected	nle 2	0.46 ug/L 0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected			
75-35-3	1.1-Dichloroethane			not detected	100 70	0.16 ug/L	<del> </del>
108-05-4	Vinyl Acetate			not detected		0.12 ug/L	
78-93-3	2-Butanone			not detected	nle	0.78 ug/L	<del></del>
76-93-3				not detected	300	0.62 ug/L	<del> </del>
(7.66.2	cis-1,2-Dichloroethene				10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	<del></del>
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	<del> </del>
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	<del> </del>
71-43-2	Benzene			not detected	1	0.23 ug/L	<b> </b>
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	ļ
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	<del> </del> -
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	<del> </del>
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	<u> </u>
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	<del>                                     </del>
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	<u> </u>
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	<b></b> _
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	<b></b>
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	<b> </b>
127-18-4	Tetrachloroethene			not detected	1 1	0.32 ug/L	<u> </u>
591-78-6	2-Hexanone			not detected	nie	0.71 ug/L	ļ
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	44	0.39 ug/L	<u> </u>
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E

## VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Project	980932		ir	ib Biar	1K
NJDEP#	13461	Ca	se No.: 414	SDG	No	Loc	cation	UST	
Matrix (soil/v	vater)	WATER	_		Lab Sample	D: 4	4148.01		
Sample wt/vo	ol:	5.0	(g/ml) ML	·	Lab File ID:	_	VB0245	0.D	
Level: (low/r	ned)	LOW	_		Date Receiv	<i>r</i> ed:	12/18/98	3	<del></del>
% Moisture:	not dec.				Date Analyz	zed: _	12/28/98	3	
GC Column:	HP5M	S ID: 0.	25 (mm)		Dilution Fac	tor: _	1.0		
Soil Extract \	/olume:		_ (uL)	;	Soil Aliquot	Volum	ne:		_ (uL)
				CONCENTR	ATION UNI	ITS:			
Number TICs	s found:	0		(ug/L or ug/k	(g) <u>UG</u>	/L			
CAS NO.		COMPOL	ND NAME		RT	EST	r. cond	<b>c</b> .	Q

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

Data File Nam vb02457.d Operator

Skelton

Date Acquired 29 Dec 98 1:41 am

Sample Name Field ID

4148.13 Field Blank

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Oualifier
107028	Acrolein	101.	Acspoise	not detected	50	1.85 ug/L	Quantier
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
108203	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene	-		not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide	_		not detected	nle	0.46 ug/L	
75-13-0	Methylene Chloride		<del>                                     </del>	not detected	2	0.46 ug/L 0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.24 ug/L 0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.10 ug/L 0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.12 ug/L 0.78 ug/L	
78-93-3	2-Butanone			not detected	300		
10-93-3	cis-1,2-Dichloroethene			not detected	10	0.62 ug/L	
67-66-3	Chloroform			not detected	6	0.17 ug/L 0.30 ug/L	
75-55-6	1.1.1-Trichloroethane			not detected	30	0.30 ug/L 0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected		0.23 ug/L 0.47 ug/L	
71-43-2	Benzene			not detected	1	0.47 ug/L 0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2		
79-01-6	Trichloroethene			not detected	1	0.18 ug/L 0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	<del>                                     </del>		
75-27-4	Bromodichloromethane			not detected	1	0.40 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.55 ug/L	
10061-01-5				not detected		0.65 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle 400	0.69 ug/L	
108-88-3	Toluene			not detected	1000	0.59 ug/L	
				not detected		0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane Tetrachloroethene				3	0.48 ug/L	
127-18-4				not detected	1	0.32 ug/L	
591-78-6	2-Hexanone				nle	0.71 ug/L	
126-48-1	Dibromochloromethane Chlorobergers			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4 700	0.39 ug/L	<del></del>
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	<del></del>
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene		<u></u>	not detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E

## VOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID

<b>TENTATIVELY</b>	IDENTIFIED	COMPOUNDS

Lab Name:	FMETL			Project	980932		Field	Blank
NJDEP#	13461	Cas	e No.: 4148	SDG	No	Lo	cation US	ST
Matrix (soil/w	ater)	WATER		L	ab Sample	iD:	4148.13	
Sample wt/vo	ol:	5.0	(g/ml) ML		ab File ID:	1	VB02457.D	
Level: (low/n	ned)	LOW		0	ate Receiv	/ed: _	12/18/98	
% Moisture: n	not dec.			D	ate Analyz	ed:	12/29/98	
GC Column:	HP5M	S ID: <u>0.2</u>	5 (mm)		ilution Fac	tor:	1.0	
Soil Extract V	olume:	<del></del>	_ (uL)	S	oil Aliquot	Volun	ne:	(uL)
				CONCENTRA	NU NOITA	TS:		
Number TICs	s found:	0	<del></del>	(ug/L or ug/Ko	g) <u>UG</u>	<u>/L</u>		
CAS NO.		COMPOU	ND NAME		RT	EST	T. CONC.	Q

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

Data File Nam vb02458.d
Operator Skelton

Sample Name Field ID 4149.01 Bldg2700

Date Acquired 29 Dec 98 2:25 am

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Oualifier
107028	Acrolein		1111	not detected	50	1.85 ug/L	- Quinner
107131	Acrylonitrile			not detected	50	2.78 ug/L	-
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	<b></b>
108203	Di-isopropyl ether		-	not detected	nle	0.25 ug/L	<b></b>
100205	Dichlorodifluoromethan		_	not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride		<del>   -</del>	not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane		<del> </del>	not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.30 ug/L 0.24 ug/L	
67-64-1	Acetone	-		not detected	700	1.36 ug/L	
75-15 <b>-</b> 0	Carbon Disulfide			not detected			
75-13-0 75-09-2	Methylene Chloride		<del>  </del>	not detected	nle 2	0.46 ug/L 0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected			
					100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate		<u>-</u>	not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
67.66.0	cis-1,2-Dichloroethene		<u></u>	not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1 1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6				not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1 1	0.32 ug/L	
591-78-6	2-Hexanone		L	not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

\* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

#### **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

#### 1E ATILE ORGANICS AN

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID
----------

Lab Name:	FMETL			Project	980932		В	ldg270	)0
NJDEP#	13461	Case	No.: 4149	SDG N	lo	Lo	cation	UST	
Matrix (soil/v	vater)	WATER		La	ab Sample	D:	4149.01	<u> </u>	
Sample wt/ve	ol:	5.0	(g/ml) ML	La	ab File ID:	_	VB0245	8.D	
Level: (low/r	ned)	LOW		D	ate Receiv	/ed:	12/18/9	8	
% Moisture:	not dec.			D	ate Analyz	ed:	12/29/9	8	
GC Column:	HP5M	S ID: 0.25	5 (mm)	D	ilution Fac	tor:	1.0		
Soil Extract \	/olume:		(uL)	S	oil Aliquot	Volun	ne:		(uL)
			C	CONCENTRA	TION UNI	TS:			
Number TIC	s found:	0	(	ug/L or ug/Kg	) <u>UG</u>	/L			
CAS NO.		COMPOUN	ID NAME		RT	ES	T. CON	C.	Q

# BASE NEUTRAL

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

Data File Name BNA01737.D

Sample Name

Sblk185

Operator

Skelton

Misc Info

Sblk185 A 98122

Date Acquired 28 Dec 1998 10:05 pm

Sample Multiplier

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL		Qualifier
110-86-1	Pyridine	<u> </u>		not detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine	<u> </u>		not detected	20	2.64	ug/L	
62-53-3	Aniline	L		not detected	NLE_	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09	ug/L	
95-50-1	1,2-Dichlorobenzene		·	not detected	600	2.44	ug/L	
108-60-1	bis(2-chloroisopropyl)ether		-	not detected	300		ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20		ug/L	
67-72-1	Hexachloroethane			not detected	10	2.59		
98-95-3	Nitrobenzene	<del>                                     </del>		not detected	10	1	ug/L	_
78-59-1	Isophorone			not detected	100		ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE		ug/L	
120-82-1	1,2,4-Trichlorobenzene	<del></del>	<u> </u>	not detected	9		ug/L	
91-20-3	Naphthalene		<del> </del>	not detected	NLE		ug/L	
106-47-8	<del></del>	├	<del> </del>				_	
	4-Chloroaniline Hexachlorobutadiene	┼──	<del> </del>	not detected	NLE ,	2.55		
87-68-3		┼	<del>                                     </del>		1	0.64	_	
91-57-6	2-Methylnaphthalene	<del> </del>		not detected	NLE		ug/L	
77-47-4	Hexachlorocyclopentadiene	<del>-</del> -		not detected	50	1.59		
91-58-7	2-Chloronaphthalene	┼		not detected	NLE	2.15		<u> </u>
88-74-4	2-Nitroaniline	-		not detected	NLE		ug/L	
131-11-3	Dimethylphthalate	├		not detected	7000		ug/L	<del>                                     </del>
208-96-8	Acenaphthylene	├		not detected	NLE	2.35		I
606-20-2	2,6-Dinitrotoluene	<b>├</b>	<b> </b>	not detected	NLE	1.54		
99-09-2	3-Nitroaniline			not detected	NLE	1.62		<u> </u>
83-32-9	Acenaphthene			not detected	400	1.98	ug/L	
132-64-9	Dibenzofuran			not detected	NLE		ug/L	
121-14-2	2,4-Dinitrotoluene	ļ	ļ	not detected	10	1.22	ug/L	<u> </u>
84-66-2	Diethylphthalate	<u> </u>		not detected	5000	1.68	ug/L	
86-73-7	Fluorene	ļ		not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1,53	ug/L	
100-01-6	4-Nitroaniline	<u> </u>		not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine	<u> </u>		not detected	20	1.73	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether		<u> </u>	not detected	NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.88	ug/L	L
85-01-8	Phenanthrene			not detected	NLE	1.67	ug/L	
120-12-7	Anthracene			not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		T	not detected	900	1.83	ug/L	
206-44-0	Fluoranthene	T	1	not detected	300		ug/L	
92-87-5	Benzidine	T		not detected	50	4.11		[
129-00-0	Pyrene	$T^{T}$		not detected	200		ug/L	
85-68-7	Butylbenzylphthalate	1	<del>                                     </del>	not detected	100		ug/L	
56-55-3	Benzo[a]anthracene	<del>                                     </del>	<u> </u>	not detected	10		ug/L	
91-94-1	3,3'-Dichlorobenzidine	+	<del>                                     </del>	not detected	60		ug/L	<del>                                     </del>
	Chrysene	+	<del>                                      </del>	not detected	20	_	ug/L	<del>                                     </del>
218-01-9		+	<del>                                     </del>					<del> </del>
117-81-7	bis(2-Ethylhexyl)phthalate	┼	<del> </del>	not detected	30		ug/L	<del> </del>
117-84-0	Di-n-octylphthalate	┼-	<u> </u>	not detected	100		ug/L	<del>                                     </del>
205-99-2	Benzo[b]fluoranthene	╂	<del> </del>	not detected	10		ug/L	<del></del>
207-08-9	Benzo[k]fluoranthene	+	<del> </del>	not detected	2		ug/L	<del> </del>
50-32-8	Benzo[a]pyrene	┿┈	<del> </del>	not detected	20		ug/L	<del> </del>
193-39-5	Indeno[1,2,3-cd]pyrene	<del> </del>	<u> </u>	not detected	20		ug/L	<del></del>
53-70-3	Dibenz[a,h]anthracene		ļ	not detected	20		ug/L	<b></b> -
191-24-2	Benzo[g,h,i]perylene	1	1	not detected	NLE	1.13	ug/L	1

<sup>\*</sup> Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1F

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Lab	Code 1	13461		Sblk1	85
Project	980211	Ca	ase No.: 4149	Lo	ocation -	2700	S	DG No.:	
Matrix: (soil/	vater)	WATER			Lab	Sample	ID:	Sblk185	
Sample wt/vo	ol:	1000	(g/ml) ML		Lab	File ID:		BNA01737.D	)
Level: (low/r	ned)	LOW	_		Date	Receiv	ed:	12/18/98	
% Moisture:		ded	canted: (Y/N)	N	Date	Extrac	ted:	12/21/98	
Concentrate	d Extract	Volume:	1000 (uL)		Date	Analyz	ed:	12/28/98	
Injection Vol	ume: <u>1.0</u>	<u>)</u> (uL)			Dilut	ion Fac	tor:	1.0	
GPC Cleanu	p: (Y/N)	N	pH: <u>7</u>						
				CON	CENTR	ATION	UNI <sup>.</sup>	TS:	
Number TIC	s found:	0		(ug/L	or ug/K	(g)	UG/	L	
CAS NUMI	3ER	СОМРО	UND NAME			RT	ES	ST. CONC.	Q

#### Semi-Volatile Base Neutral Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Name bna01745.d

Sample Name

4148.13 Field Blank

Operator Date Acquired 29 Dec 1998 3:41 am

Skelton

Misc Info

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL		Qualifie
110-86-1	Pyridine			not detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64	ug/L	_
62-53-3	Aniline			not detected	NLE	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2,65	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50		
100-51-6	Benzyl alcohol			not detected	NLE	2.09		
95-50-1	1,2-Dichlorobenzene			not detected	600		ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300		ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20		ug/L	
67-72-1	Hexachloroethane			not detected	10	2.59	_	
98-95-3	Nitrobenzene			not detected	10		ug/L	
78-59-1	Isophorone			not detected	100	2.31		<del>                                     </del>
111-91-1	1	-		not detected				<del>                                     </del>
120-82-1	bis(2-Chloroethoxy)methane		-		NLE	2.54		├─-
	1,2,4-Trichlorobenzene			not detected	9	2.58		<del>                                     </del>
91-20-3	Naphthalene			not detected	NLE		ug/L	├─-
106-47-8	4-Chloroaniline			not detected	NLE	2.55	_	<b></b> -
87-68-3	Hexachlorobutadiene	<del> </del>		not detected	1		ug/L	
91-57-6	2-Methylnaphthalene	<b>  </b>		not detected	NLE	2.49	_	├
77-47-4	Hexachlorocyclopentadiene	-		not detected	50		ug/L	<del></del>
91-58-7	2-Chloronaphthalene			not detected	NLE		ug/L	<u> </u>
88-74-4	2-Nitroaniline			not detected	NLE	1.62	ug/L	
131-11-3	Dimethylphthalate	<b> </b>		not detected	7000	2.74	ug/L	<u> </u>
208-96-8	Acenaphthylene			not detected	NLE	2.35	ug/L	<b> </b>
606-20-2	2,6-Dinitrotoluene	ļi		not detected	NLE	1.54	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.62	ug/L	
83-32-9	Acenaphthene	<b>├</b>		not detected	400	1,98	ug/L	<u> </u>
132-64-9	Dibenzofuran			not detected	NLE	2.13	ug/L	ļ
121-14-2	2,4-Dinitrotoluene	lacksquare		not detected	10	1,22	ug/L	
84-66-2	Diethylphthalate	<u> </u>		not_detected	5000	1.68	ug/L	<u>L</u> .
86-73-7	Fluorene			not detected	300	1.93	ug/L	<u> </u>
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.53	ug/L	
100-01-6	4-Nitroaniline	<u> </u>		not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.73	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.88	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.67	ug/L	
120-12-7	Anthracene			not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.83	ug/L	
206-44-0	Fluoranthene			not detected	300	1.85	ug/L	
92-87-5	Benzidine			not detected	50	4.11	ug/L	
129-00-0	Pyrene	1		not detected	200		ug/L	
85-68-7	Butylbenzylphthalate	<b>†</b>		not detected	100		ug/L	
56-55-3	Benzo[a]anthracene	1		not detected	10		ug/L	<del>                                     </del>
91-94-1	3,3'-Dichlorobenzidine	+		not detected	60		ug/L	<del>                                     </del>
218-01-9		<del>                                     </del>	<b></b>	not detected	20			<del>                                     </del>
	Chrysene	24.49	2575404		1		ug/L ug/L	<del>                                     </del>
117-81-7	bis(2-Ethylhexyl)phthalate	24.48	4373404	27.53 ug/L	30			┼
117-84-0	Di-n-octylphthalate	<del> </del>	<del></del> -	not detected	100	·	ug/L	<del> </del>
205-99-2	Benzo[b]fluoranthene	┼—	ļ	not detected	10		ug/L	┼─-
207-08-9	Benzo[k]fluoranthene	┼—	ļ	not detected	2		ug/L	<del> </del>
50-32-8	Benzo[a]pyrene	┼	<b></b>	not detected	20		ug/L	<del> </del> -
193-39-5	Indeno[1,2,3-cd]pyrene	↓		not detected	20	1	ug/L	—-
53-70-3	Dibenz[a,h]anthracene	<del> </del>	<u> </u>	not detected	20	3.12	ug/L	ļ
191-24-2	Benzo[g,h,i]perylene	1	1	not detected	NLE	1 112	ug/L	1

<sup>\*</sup> Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

#### 1F

### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL		Lab Cod	de 1	3461		Field Bla	ank 
Project	980211	Case No.: 4148	Locat	ion	74	_ s	DG No.:	
Matrix: (soil/	water)	WATER	l	Lab S	Sample	ID:	4148.13	
Sample wt/v	ol:	1000 (g/ml) ML		Lab F	File ID:		BNA01745.D	<del></del>
Level: (low/i	med)	LOW	ı	Date	Receiv	/ed:	12/18/98	
% Moisture:		decanted: (Y/N)	<u>N</u> I	Date	Extrac	ted:	12/21/98	
Concentrate	d Extract	Volume: 1000 (uL)	í	Date	Analyz	ed:	12/29/98	
Injection Vol	ume: <u>1.</u> 0	0 (uL)	ı	Diluti	on Fac	tor:	1.0	
GPC Cleanu	ip: (Y/N)	N pH: 7						
			CONCE	NTR	ATION	UNI	TS:	
Number TIC	s found:	0	(ug/L or	ug/K	g)	UG/	<u>L</u>	
CAS NUMI	BER	COMPOUND NAME			RT	ES	ST. CONC.	Q

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

Data File Name BNA01746.D

Sample Name

Operator

Skelton

Misc Info Bldg2700

Date Acquired 29 Dec 1998 4:23 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL		Qualifier
110-86-1	Pyridine			not detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64	ug/L	
62-53-3	Aniline			not detected	NLE	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2,44	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	2.96	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	2.22	ug/L	
67-72-1	Hexachloroethane			not detected	10	2.59	ug/L	
98-95-3	Nitrobenzene			not detected	10	2.45	ug/L	
78-59-1	Isophorone			not detected	100	2,31	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54		
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58	ug/L	
91-20-3	Naphthalene			not detected	NLE	3.03		
106-47-8	4-Chloroaniline			not detected	NLE	2.55	<del>                                     </del>	
87-68-3	Hexachlorobutadiene	$\vdash$		not detected	1	0.64		
91-57-6	2-Methylnaphthalene			not detected	NLE	2.49	Ť	
77-47-4	Hexachlorocyclopentadiene	1		not detected	50	1.59		
91-58-7	2-Chloronaphthalene			not detected	NLE	2.15	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.62		
131-11-3	Dimethylphthalate	_		not detected	7000	2.74	<del></del>	
208-96-8	Acenaphthylene			not detected	NLE	2.35		
606-20-2	2.6-Dinitrotoluene	<del>-</del> -		not detected	NLE	1.54	Ť	<del></del>
99-09-2	3-Nitroaniline	<del>                                     </del>		not detected	NLE	1.62	<del></del>	
83-32-9	Acenaphthene	┼		not detected	400	1.98	Ť	<del></del>
132-64-9	Dibenzofuran	_	<del> </del>	not detected	NLE	2,13	_	
121-14-2	2,4-Dinitrotoluene	┼─		not detected	10	1.22	-	
84-66-2	Diethylphthalate	_		not detected	5000		ug/L	<u> </u>
86-73-7	Fluorene	<del>                                     </del>		not detected	300	1.93		
7005-72-3	4-Chlorophenyl-phenylether	_		not detected	NLE	1.53	· · · ·	
100-01-6	4-Nitroaniline	$\vdash$		not detected	NLE	2.70	<del></del>	
86-30-6	n-Nitrosodiphenylamine	+	<del>                                     </del>	not detected	20	1.73	_	<del>-</del>
103-33-3	Azobenzene	+		not detected	NLE NLE	1.92		<del> </del>
101-55-3	4-Bromophenyl-phenylether	┼──		not detected				<del>                                     </del>
118-74-1	Hexachlorobenzene	$\vdash$	<del>                                     </del>	not detected	NLE 10		ug/L ug/L	
85-01-8	Phenanthrene	<del> </del>	<del></del>	not detected	NLE	1.67	<del> </del>	<del>                                     </del>
120-12-7	Anthracene	+	<del> </del>	<del> </del>		1.67	- T	<del> </del> -
84-74-2		+	-	not detected	2000			
206-44-0	Di-n-butylphthalate Fluoranthene	+-	<del> </del>	not detected	900	1.83		<del>                                     </del>
92-87-5	Benzidine	$\vdash$	<del> </del>	not detected	300 50	1.85 4.11		<del>-</del>
	<del> </del>	+-		<del> </del>	1		1	
129-00-0	Pyrene	$\vdash$	<u> </u>	not detected	200		ug/L	
85-68-7 56-55-3	Butylbenzylphthalate Benzo[a]anthracene	+	<del>                                     </del>	not detected	100		ug/L	<del>-</del>
56-55-3		<del> </del>		not detected	10		ug/L	<del> </del>
91-94-1	3,3'-Dichlorobenzidine Chrysene	+		not detected	60		ug/L ug/L	<del></del>
218-01-9 117-81-7	bis(2-Ethylhexyl)phthalate	+	<del>                                     </del>	not detected	20		<del></del>	<del> </del>
	<del>  `                                   </del>	+	<del>                                     </del>	not detected	30		ug/L	<del> </del>
117-84-0	Di-n-octylphthalate	+-	<del>                                     </del>	not detected	100		ug/L	-
205-99-2	Benzo[b]fluoranthene	+		not detected	10		ug/L	<del>                                     </del>
207-08-9	Benzo[k]fluoranthene	<del> </del>	ļ	not detected	2		ug/L	
50-32-8	Benzo[a]pyrene	+	<del> </del>	not detected	20		ug/L	<del> </del>
193-39-5 53-70-3	Indeno[1,2,3-cd]pyrene	+		not detected	20		ug/L	<del></del> -
	Dibenz[a,h]anthracene	1	1	not detected	20	. 212	ug/L	i .

\* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

#### Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL		Lab Code 13461	Bldg2700
Project	980211	Case No.: 4149	Location 2700 SD	G No.:
Matrix: (soil/v	water)	WATER	Lab Sample ID: 4	149.01
Sample wt/vo	ol:	1000 (g/ml) ML	Lab File ID:	3NA01746.D
Level: (low/r	med)	LOW	Date Received: 1	2/18/98
% Moisture:		decanted: (Y/N)	N Date Extracted: 1	2/21/98
Concentrated	d Extract	Volume: <u>1000</u> (uL)	Date Analyzed: 1	2/29/98
Injection Volu	ume: 1.0	0 (uL)	Dilution Factor: 1	1.0
GPC Cleanu	p: <b>(Y/N)</b>	N pH: 7	- ,	
			CONCENTRATION UNITS	S:
Number TIC:	s found:	0	(ug/L or ug/Kg) UG/L	
CAS NUME	3ER	COMPOUND NAME	RT EST	CONC. Q

#### 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	
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	
4.	Document paginated and legible	
5.	Chain of Custody submitted	
6.	Samples submitted to lab within 48 hours of sample collection	
<b>7</b> .	Methodology Summary submitted	
8.	Laboratory Chronicle and Holding Time Check submitted	
9.	Results submitted on a dry weight basis	
10.	Method Detection Limits submitted	_
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	_
	oratory Manager or Environmental Consultant's Signature	

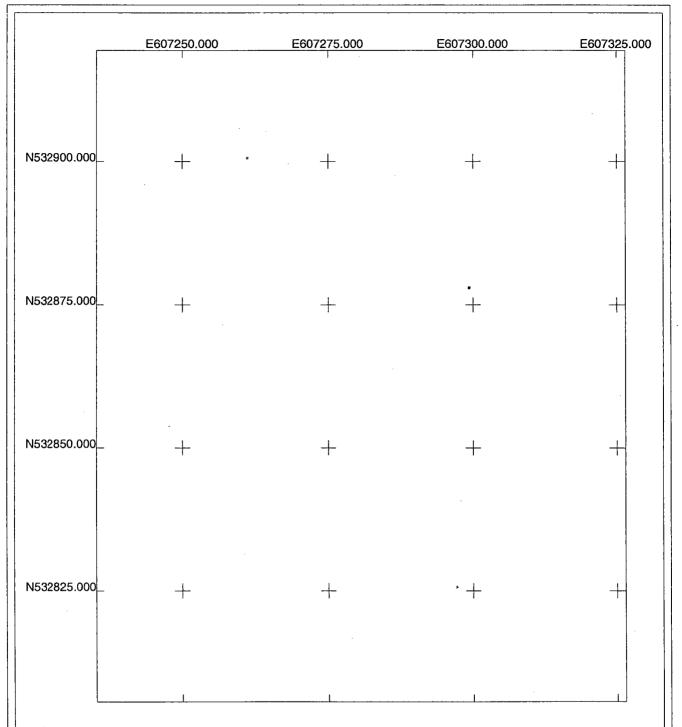
\*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

Laboratory Certification #13461

#### **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



# Bldg. 2700 Meyer Center UST Ground Water Sample GPS Location Map

US State Plane 1983 New Jersey (NY East) 2900 NAD 1983 (Conus)

Scale 1:200 0 25.00 US Survey Feet r011319a2700gw cor 2/9/2000 Pathfinder Office

#### **BLDG. 2700 MEYER CENTER UST GROUND WATER SAMPLE GPS POSITION & COORDINATES**

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

(IN US SURVEY FEET)

#### **SAMPLE POINTS**

**POSITION / DESC.** 

Y COORD. ( NORTHING )

X COORD. (EASTING)

2700 GW ( GW denotes <u>G</u>round <u>W</u>ater )

532878.01

607299.259

#### REFERENCE POINTS

**POSITION / DESC.** 

Y COORD. ( NORTHING )

X COORD. (EASTING)

LIGHT POST HYDRANT 532825.726 532900.643 607297.064 607261.014

#### **GPS SAMPLE LOCATION MAP(BLDG.2700)**

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

(IN US SURVEY FEET)

#### SAMPLE POINT

POSITION/DESC.	Y COORD.(NORTHING)	X COORD.(EASTING)
1	532905.064	607301.616
2	532892.716	607324.548
3	532864.496	607337.652
4	532831.988	607322.280
5	532847.360	607295.820
6	532875.580	607282.968
PS-1	532888.180	607370.660
PS-2	532883.644	607358.312
PS-3	532879 612	607347 732