

United States Army
Fort Monmouth, New Jersey

Site/Remedial Investigation Report

***Former Building 65
Main Post-East Area***

June 1999

SITE/REMEDIAL INVESTIGATION REPORT

FORMER BUILDING 65

MAIN POST-EAST AREA

JUNE 1999

PREPARED FOR:

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

PREPARED BY:

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PROJECT NO. 2429-308

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EXECUTIVE SUMMARY

Site/Remedial Investigation and Post-Excavation Soil Sampling

SMC was retained by the U.S. Army DPW to implement a site/remedial investigation adjacent to a former No. 2 fuel oil UST and an oil water separator. The UST was associated with former Building 65 at the Main Post-East area of the U.S. Army Fort Monmouth Base. The objective of the site/remedial investigation activities were to remove all potentially impacted soil resulting from the past operation of the former UST and the oil water separator. The site/remedial investigation was performed by SMC personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*.

Visibly stained soils and soils exhibiting elevated PID levels (greater than 5 ppm) of VOCs, were excavated. Excavation activities continued until potentially impacted soil had been removed. To confirm PID readings and verify the effectiveness of the soil excavation activities, 18 post-excavation soil samples were collected from within the excavation between April 2 and April 14, 1997. All samples were analyzed for TPHC and total solids. The post-excavation soil samples collected from the excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria.

Management of Excavated Soils

A total of approximately 300 cubic yards of contaminated soil was excavated from around the former UST location and the oil water separator. All contaminated material was placed on and covered with tarps. All contaminated soil characterization and disposal was handled directly by the U.S. Army Fort Monmouth DPW.

Site Restoration

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was backfilled to grade with certified clean crushed stone and sand.

Conclusions and Recommendations

All post excavation soil samples collected from the UST excavation at Building 65 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).

In response to the observation of potentially contaminated soil near the water table, two (2) groundwater samples were collected at Building 65. On December 19, 1998, and January 25, 1999, Building 65 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 at Building 65.

1.0 BACKGROUND INFORMATION

1.1 OVERVIEW

SMC Environmental Services Group (SMC) was retained by the United States Army Directorate of Public Works (DPW) to implement a site/remedial investigation adjacent to a former No. 2 fuel oil underground storage tank (UST) and a former oil water separator. The New Jersey Department of Environmental Protection (NJDEP) UST Registration No. 90010-5, was associated with former Building 65 at the Main Post-East area of the U.S. Army Fort Monmouth Base, Fort Monmouth, New Jersey. Refer to site location map in Figure 1.

This report describes the results of the site/remedial investigation activities completed at the site. The objective of the site/remedial investigation activities was to remove all potentially impacted soil resulting from the past operation of the former UST and the oil water separator.

This report outlines background information, the site/remedial investigation activities, results of these activities, and conclusions and recommendations drawn from these results.

1.2 SITE DESCRIPTION

Former Building 65 was located in the Main Post-East area of the Fort Monmouth Army Base. The former UST was located a few feet east of the southeast corner of former Building 65. The oil water separator was located approximately 50 feet southeast of the former UST. A site map is provided in Figure 2.

1.3 GEOLOGICAL/HYDROGEOLOGICAL SETTING

The following is a description of the geological/hydrogeological setting of the area surrounding former Building 65. Included is a description of the regional geology of the area surrounding Fort Monmouth, as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 1989). These sediments,

predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

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

Local Geology

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

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

Hydrogeology

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

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

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and

away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore, the direction of shallow groundwater should be determined on a case-by-case basis.

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

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

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

Former Building 65 was located approximately 500 feet west of Oceanport Creek, the nearest water body. Based on Main Post topography, groundwater flow in the area of former Building 65 is anticipated to be to the east.

1.4 HEALTH AND SAFETY

During all site/remedial investigation activities, hazards at the work site, which may have posed a threat to the Health and Safety of personnel, were minimized. All areas, which posed, or may have been suspected to pose a vapor hazard, were monitored by a qualified individual utilizing an organic vapor analyzer (OVA). The individual ascertained if the area was safe, as defined by the Occupational Safety & Health Administration (OSHA).

2.0 SITE/REMEDIAL INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site/Remedial Investigation was managed and carried out by SMC personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, an NJDEP-certified testing laboratory. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual*. Sampling frequency and parameters analyzed complied with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E).

The following Parties participated in Site/Remedial Investigation Activities:

- Subsurface Evaluator: David H. Daniels
Employer: SMC Environmental Services Group
Phone Number: (215) 788-7844
NJDEP Certification No.: 10279
- Project Manager: Charles Appleby
Employer: DPW U.S. Army, Fort Monmouth
Phone Number: (732) 532-6224
NJDEP Certification No.: 2056
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Phone Number: (732) 532-4359
NJDEP Company Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

Field screening and visual observations to identify potentially contaminated material was performed by a NJDEP Certified Sub-Surface Evaluator. During the excavation activities, all soil removed was screened with a photoionization detector (PID) to check for the presence of elevated volatile organic concentrations (VOCs).

Soils that displayed elevated PID readings (i.e., above 5 ppm) were stockpiled separately from those soils that did not display elevated PID readings (i.e., less than 5 ppm). The ground surface in the areas used to stockpile contaminated soils was covered with tarps. All stockpiled contaminated soil was covered with tarps at the completion of each day of excavation.

2.3 MANAGEMENT OF EXCAVATED SOILS

A total of approximately 420 cubic yards of material was excavated during the remediation activities. Of this amount, approximately 80 cubic yards of uncontaminated stone (1-½ inch stone previously used to backfill the excavation after the UST was removed) was stockpiled separately from the contaminated soil and was used later as backfill. There was approximately 300 cubic yards of contaminated soil (soil displaying PID readings above 5 ppm) excavated, placed on, and covered with tarps. Approximately 40 cubic yards of concrete was removed from the southeast section of the excavation. The concrete was associated with a former oil water separator.

All contaminated soil characterization and disposal was handled directly by the U.S. Army Fort Monmouth Directorate of Public Works.

2.4 POST-EXCAVATION SOIL SAMPLING AND RESULTS

The excavation of the impacted soil proceeded laterally in all directions from the former UST location and the former oil water separator until non-detectable field screening readings (i.e., less than 5 ppm) were obtained with the PID. The excavation extended vertically to a depth of 7 feet below ground surface (bgs) in the area of the former UST and extended vertically to a depth of 6 feet bgs in the area of the former oil water separator. Groundwater was encountered at a depth of 4-½ feet bgs.

To confirm the PID readings and verify the effectiveness of soil excavation activities, 18 post-excitation soil samples were collected from within the excavation between April 2 and April 14, 1997. Of these, 14 post-excitation soil samples were collected from within the excavation associated with the former UST. Ten samples were collected from the excavation sidewalls at a depth of 4 feet bgs and 4 samples (65A-BS, 65A-BW, 65A-BE and 65A-BEE) were collected from the bottom of the excavation. The remaining 4 post-excitation soil samples were collected from the sidewalls and bottom of the excavation associated the former oil water separator. The locations of the 18 post-excitation soil samples associated with the former UST and the former oil water separator are shown in Figure 3.

SMC personnel, in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual, performed the post-excitation soil sampling activities. A summary of sampling activities, including parameters analyzed, is provided in Table 1. Following soil sampling activities, the samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

All samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids. The post-excitation 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 A.

All post-excavation soil samples collected from the excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria. Samples contained TPHC levels ranging from non-detected to 525.56 mg/kg.

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was backfilled to grade with certified clean crushed stone and sand. The 1-½ inch stones that were excavated during the site/remedial investigation activities were utilized as backfill material. Appendix C provides photographs of the site/remedial investigations.

2.5 GROUNDWATER SAMPLING

On December 19, 1998, and January 25, 1999, Building 65 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 B for the field sampling documentation.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

SMC was retained by the U.S. Army DPW to implement a site/remedial investigation adjacent to a former No. 2 fuel oil UST and a former oil water separator. The UST was associated with former Building 65 at the Main Post-East area of the U.S. Army Fort Monmouth Base. The former oil water separator was located approximately 50 feet southeast of the former oil water separator. The objective of the site/remedial investigation activities was to remove all potentially impacted soil resulting from the past operation of the former UST and the former oil water separator.

Visibly stained soils and soils exhibiting elevated PID levels (greater than 5 ppm) of VOCs were excavated. Excavation activities continued until potentially impacted soil had been removed. In all, a total of approximately 300 cubic yards of contaminated soil was excavated from around the former UST and former oil water separator locations. All contaminated soil characterization and disposal was handled directly by the U.S. Army Fort Monmouth DPW.

To confirm the PID readings and verify the effectiveness of the soil excavation activities, 18 post-excavation soil samples were collected from within the excavation between April 2 and April 14, 1997. All samples were analyzed for TPHC and total solids. The post-excavation soil samples collected from the excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria. Samples contained TPHC levels ranging from non-detected to 525.56 mg/kg.

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was backfilled to grade with certified clean crushed stone and sand.

3.2 GROUNDWATER SAMPLING RESULTS

No compounds were detected in the sample collected from Building 65 on December 19, 1998.

The sample collected from Building 65 on January 25, 1999 contained bis (2-ethylhexyl) phthalate at a concentration of 1.56 ug/l. No other compounds were detected. Bis (2-ethylhexyl) phthalate was also detected in the field blank at a concentration of 1.26 ug/l and the field dup at a concentration of 1.47 ug/l.

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 B. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey.

Groundwater samples collected on December 19, 1998, and January 25, 1999, 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 65 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 65 on December 19, 1998, and January 25, 1999, groundwater quality at Building 65 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 at Building 65.

TABLES

TABLE 1

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
 AREA 65A, MAIN POST-EAST AREA
 FORT MONMOUTH, NEW JERSEY

Page 1 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
65A-SE	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
**65A-MWE	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
**65A-MWN	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-MWW	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-SW	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-W	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-N	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-N2	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-BW	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-BE	4/2/97	4/2/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

** Location further remediated and resampled

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
AREA 65A, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Page 2 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
65A-B5	4/8/97	4/8/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-S	4/8/97	4/8/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-S2	4/8/97	4/8/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
AREA 65A, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Page 3 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
65A-BEE	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-BSEE	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-NC	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-NE	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-E1	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-E2	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-E3	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-E4	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-SEE	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025
65A-S3	4/14/97	4/15/97	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 65A, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Page 4 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Sampling Method**
4150.01	12/19/98	12/28/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4150.02	12/19/98	12/28/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4150.03	12/19/98	12/28/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4150.04	12/19/98	12/28/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4210.01	1/25/99	1/26/99	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4210.02	1/25/99	1/26/99	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4211.01	1/25/99	1/26/99	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4211.02	1/25/99	1/26/99	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4211.03	1/25/99	1/26/99	Aqueous	Groundwater	VOCs, SVOCs	PPNDP

Note:

- *VOCs: Volatile Organic Compounds plus 15 tentatively identified compounds
 *SVOCs: Semivolatile organic compounds plus 15 tentatively identified compounds
 **PPNDP: Passively Placed Narrow Diameter Point

TABLE 2

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 AREA 65A, MAIN POST-EAST AREA
 FORT MONMOUTH, NEW JERSEY

Page 1 of 3

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
65A-SE=	2423.01	4/2/97	4/2/97	Total Solid	--	--	81.90	--	--
				TPHC	193	Yes	211.66	10,000	No
***65A-MWE=	2423.02	4/2/97	4/2/97	Total Solid	--	--	83.60	--	--
				TPHC	173	Yes	4572.09	10,000	No
***65A-MWN=	2423.03	4/2/97	4/2/97	Total Solid	--	--	85.78	--	--
				TPHC	157	Yes	2846.09	10,000	No
65A-MWW =	2423.04	4/2/97	4/2/97	Total Solid	--	--	81.80	--	--
				TPHC	186	Yes	525.56	10,000	No
65A-SW=	2423.05	4/2/97	4/2/97	Total Solid	--	--	79.54	--	--
				TPHC	189	Yes	282.86	10,000	No
65A-W=	2423.06	4/2/97	4/2/97	Total Solid	--	--	86.26	--	--
				TPHC	177	Yes	245.57	10,000	No
65A-N=	2423.07	4/2/97	4/2/97	Total Solid	--	--	100.00	--	--
				TPHC	155	Yes	163.54	10,000	No
65A-N2=	2423.08	4/2/97	4/2/97	Total Solid	--	--	84.80	--	--
				TPHC	181	Yes	ND	10,000	No
65A-BW=	2423.09	4/2/97	4/2/97	Total Solid	--	--	79.92	--	--
				TPHC	188	Yes	ND	10,000	No
65A-BE=	2423.10	4/2/97	4/2/97	Total Solid	--	--	88.64	--	--
				TPHC	164	Yes	184.22	10,000	No

Note:

- * Total Solid results are expressed as a percentage.
- ** NJDEP Residential Direct Contact soil cleanup criteria for total organics
- ** Location further remediated and resampled
- Not detected above stated sample quantitation limit
- TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 AREA 65A, MAIN POST-EAST AREA
 FORT MONMOUTH, NEW JERSEY

Page 2 of 3

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
65A-B5=	2438.01	4/8/97	4/8/97	Total Solid	--	--	85.34	--	--
				TPHC	174	Yes	ND	10,000	No
65A-S=	2438.02	4/8/97	4/8/97	Total Solid	--	--	79.73	--	--
				TPHC	176	Yes	ND	10,000	No
65A-S2 =	2438.03	4/8/97	4/8/97	Total Solid	--	--	81.94	--	--
				TPHC	180	Yes	ND	10,000	No

Note:

- * Total Solid results are expressed as a percentage.
 ** NJDEP Residential Direct Contact soil cleanup criteria for total organics
 -- Not detected above stated sample quantitation limit
 TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 AREA 65A, MAIN POST-EAST AREA
 FORT MONMOUTH, NEW JERSEY

Page 3 of 3

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
65A-BEE=	2450.01	4/14/97	4/15/97	Total Solid	--	--	84.17	--	--
				TPHC	185	Yes	ND	10,000	No
65A-BSEE=	2450.02	4/14/97	4/15/97	Total Solid	--	--	83.74	--	--
				TPHC	180	Yes	ND	10,000	No
65A-NC =	2450.03	4/14/97	4/15/97	Total Solid	--	--	81.16	--	--
				TPHC	192	Yes	ND	10,000	No
65A-NE =	2450.04	4/14/97	4/15/97	Total Solid	--	--	79.84	--	--
				TPHC	189	Yes	ND	10,000	No
65A-E1 =	2450.05	4/14/97	4/15/97	Total Solid	--	--	81.92	--	--
				TPHC	190	Yes	ND	10,000	No
65A-E2 =	2450.06	4/14/97	4/15/97	Total Solid	--	--	82.98	--	--
				TPHC	188	Yes	ND	10,000	No
65A-E3 =	2450.07	4/14/97	4/15/97	Total Solid	--	--	82.84	--	--
				TPHC	187	Yes	ND	10,000	No
65A-E4 =	2450.08	4/14/97	4/15/97	Total Solid	--	--	83.26	--	--
				TPHC	173	Yes	ND	10,000	No
65A-SEE=	2450.09	4/14/97	4/15/97	Total Solid	--	--	85.04	--	--
				TPHC	184	Yes	401.02	10,000	No
65A-S3 =	2450.10	4/14/97	4/15/97	Total Solid	--	--	83.68	--	--
				TPHC	186	Yes	ND	10,000	No

Note:

* Total Solid results are expressed as a percentage.

** NJDEP Residential Direct Contact soil cleanup criteria for total organics

-- Not detected above stated sample quantitation limit

TPHC Total Petroleum Hydrocarbons

TABLE 3

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.01(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	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	--	nle	no

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER
 Date Sampled: 12/19/98 Location: 65 Lab Sample ID: 4150.01(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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.02(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	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	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	--	nle	no

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.02(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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.03(Bldg 65)

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	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	Benzene	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

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER
 Date Sampled: 12/19/98 Location: 65 Lab Sample ID: 4150.03(Bldg 65)

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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.04(DUP 65)

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	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	Benzene	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

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.04(DUP 65)

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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.02(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	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	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	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	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: 12/19/98 Location: 65 Lab Sample ID: 4150.02(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	no
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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.03(Bldg 65)

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	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	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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.03(Bldg 65)

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	Benidine	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	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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.04(DUP 65)

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	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	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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 12/19/98Location: 65Lab Sample ID: 4150.04(DUP 65)

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	no
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	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
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.01(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	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	Benzene	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

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.01(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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.02(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	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	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	--	nle	no

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.02(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	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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4211.01(Bldg 65)

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	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	--	nle	no

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER
 Date Sampled: 1/25/99 Location: 65 Lab Sample ID: 4211.01(Bldg 65)

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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4211.03(Dup 65)

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	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	--	nle	no

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER
 Date Sampled: 1/25/99 Location: 65 Lab Sample ID: 4211.03(Dup 65)

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: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	5.00	Not Detected	--	nle	no
62-75-9	N-nitroso-dimethylamine	0.94	Not Detected	--	20	no
62-53-3	Aniline	0.15	Not Detected	--	nle	no
111-44-4	bis(2-Chloroethyl)ether	0.48	Not Detected	--	10	no
541-73-1	1,3-Dichlorobenzene	0.23	Not Detected	--	600	no
106-46-7	1,4-Dichlorobenzene	0.23	Not Detected	--	75	no
100-51-6	Benzyl alcohol	0.18	Not Detected	--	nle	no
95-50-1	1,2-Dichlorobenzene	0.16	Not Detected	--	600	no
108-60-1	bis(2-chloroisopropyl)ether	0.61	Not Detected	--	300	no
621-64-7	n-Nitroso-di-n-propylamine	0.33	Not Detected	--	20	no
67-72-1	Hexachloroethane	0.46	Not Detected	--	10	no
98-95-3	Nitrobenzene	0.35	Not Detected	--	10	no
78-59-1	Isophorone	0.46	Not Detected	--	100	no
111-91-1	bis(2-Chloroethoxy)methane	0.26	Not Detected	--	nle	no
120-82-1	1,2,4-Trichlorobenzene	0.25	Not Detected	--	9	no
91-20-3	Naphthalene	0.25	Not Detected	--	nle	no
106-47-8	4-Chloroaniline	0.19	Not Detected	--	nle	no
87-68-3	Hexachlorobutadiene	0.38	Not Detected	--	1	no
91-57-6	2-Methylnaphthalene	0.16	Not Detected	--	nle	no
77-47-4	Hexachlorocyclopentadiene	1.50	Not Detected	--	50	no
91-58-7	2-Chloronaphthalene	0.32	Not Detected	--	nle	no
88-74-4	2-Nitroaniline	0.21	Not Detected	--	nle	no
131-11-3	Dimethylphthalate	0.18	Not Detected	--	7000	no
208-96-8	Acenaphthylene	0.19	Not Detected	--	nle	no

Table 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4210.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	0.31	Not Detected	--	nle	no
99-09-2	3-Nitroaniline	0.26	Not Detected	--	nle	no
83-32-9	Acenaphthene	0.26	Not Detected	--	400	no
132-64-9	Dibenzofuran	0.32	Not Detected	--	nle	no
121-14-2	2,4-Dinitrotoluene	0.36	Not Detected	--	10	no
84-66-2	Diethylphthalate	0.82	Not Detected	--	5000	no
86-73-7	Fluorene	0.29	Not Detected	--	300	no
7005-72-3	4-Chlorophenyl-phenylether	0.31	Not Detected	--	nle	no
100-01-6	4-Nitroaniline	0.90	Not Detected	--	nle	no
86-30-6	n-Nitrosodiphenylamine	0.23	Not Detected	--	20	no
103-33-3	Azobenzene	0.80	Not Detected	--	nle	no
101-55-3	4-Bromophenyl-phenylether	0.55	Not Detected	--	nle	no
118-74-1	Hexachlorobenzene	0.82	Not Detected	--	10	no
85-01-8	Phenanthrene	0.18	Not Detected	--	nle	no
120-12-7	Anthracene	0.19	Not Detected	--	2000	no
84-74-2	Di-n-butylphthalate	0.23	Not Detected	--	900	no
206-44-0	Fluoranthene	0.41	Not Detected	--	300	no
92-87-5	Benzdine	1.45	Not Detected	--	50	no
129-00-0	Pyrene	0.32	Not Detected	--	200	no
85-68-7	Butylbenzylphthalate	0.47	Not Detected	--	100	no
56-55-3	Benzo[a]anthracene	0.22	Not Detected	--	10	no
91-94-1	3,3'-Dichlorobenzidine	0.46	Not Detected	--	60	no
218-01-9	Chrysene	0.20	Not Detected	--	20	no
117-81-7	bis(2-Ethylhexyl)phthalate	0.51	1.26 ug/L	--	30	no
117-84-0	Di-n-octylphthalate	0.82	Not Detected	--	100	no
205-99-2	Benzo[b]fluoranthene	0.37	Not Detected	--	10	no
207-08-9	Benzo[k]fluoranthene	0.32	Not Detected	--	2	no
50-32-8	Benzo[a]pyrene	0.31	Not Detected	--	20	no
193-39-5	Indeno[1,2,3-cd]pyrene	0.79	Not Detected	--	20	no
53-70-3	Dibenz[a,h]anthracene	0.28	Not Detected	--	20	no
191-24-2	Benzo[g,h,i]perylene	0.40	Not Detected	--	nle	no

Table 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4211.02(Bldg 65)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	5.00	Not Detected	--	nle	no
62-75-9	N-nitroso-dimethylamine	0.94	Not Detected	--	20	no
62-53-3	Aniline	0.15	Not Detected	--	nle	no
111-44-4	bis(2-Chloroethyl)ether	0.48	Not Detected	--	10	no
541-73-1	1,3-Dichlorobenzene	0.23	Not Detected	--	600	no
106-46-7	1,4-Dichlorobenzene	0.23	Not Detected	--	75	no
100-51-6	Benzyl alcohol	0.18	Not Detected	--	nle	no
95-50-1	1,2-Dichlorobenzene	0.16	Not Detected	--	600	no
108-60-1	bis(2-chloroisopropyl)ether	0.61	Not Detected	--	300	no
621-64-7	n-Nitroso-di-n-propylamine	0.33	Not Detected	--	20	no
67-72-1	Hexachloroethane	0.46	Not Detected	--	10	no
98-95-3	Nitrobenzene	0.35	Not Detected	--	10	no
78-59-1	Isophorone	0.46	Not Detected	--	100	no
111-91-1	bis(2-Chloroethoxy)methane	0.26	Not Detected	--	nle	no
120-82-1	1,2,4-Trichlorobenzene	0.25	Not Detected	--	9	no
91-20-3	Naphthalene	0.25	Not Detected	--	nle	no
106-47-8	4-Chloroaniline	0.19	Not Detected	--	nle	no
87-68-3	Hexachlorobutadiene	0.38	Not Detected	--	1	no
91-57-6	2-Methylnaphthalene	0.16	Not Detected	--	nle	no
77-47-4	Hexachlorocyclopentadiene	1.50	Not Detected	--	50	no
91-58-7	2-Chloronaphthalene	0.32	Not Detected	--	nle	no
88-74-4	2-Nitroaniline	0.21	Not Detected	--	nle	no
131-11-3	Dimethylphthalate	0.18	Not Detected	--	7000	no
208-96-8	Acenaphthylene	0.19	Not Detected	--	nle	no

Table 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4211.02(Bldg 65)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	0.31	Not Detected	--	nle	no
99-09-2	3-Nitroaniline	0.26	Not Detected	--	nle	no
83-32-9	Acenaphthene	0.26	Not Detected	--	400	no
132-64-9	Dibenzofuran	0.32	Not Detected	--	nle	no
121-14-2	2,4-Dinitrotoluene	0.36	Not Detected	--	10	no
84-66-2	Diethylphthalate	0.82	Not Detected	--	5000	no
86-73-7	Fluorene	0.29	Not Detected	--	300	no
7005-72-3	4-Chlorophenyl-phenylether	0.31	Not Detected	--	nle	no
100-01-6	4-Nitroaniline	0.90	Not Detected	--	nle	no
86-30-6	n-Nitrosodiphenylamine	0.23	Not Detected	--	20	no
103-33-3	Azobenzene	0.80	Not Detected	--	nle	no
101-55-3	4-Bromophenyl-phenylether	0.55	Not Detected	--	nle	no
118-74-1	Hexachlorobenzene	0.82	Not Detected	--	10	no
85-01-8	Phenanthrene	0.18	Not Detected	--	nle	no
120-12-7	Anthracene	0.19	Not Detected	--	2000	no
84-74-2	Di-n-butylphthalate	0.23	Not Detected	--	900	no
206-44-0	Fluoranthene	0.41	Not Detected	--	300	no
92-87-5	Benzidine	1.45	Not Detected	--	50	no
129-00-0	Pyrene	0.32	Not Detected	--	200	no
85-68-7	Butylbenzylphthalate	0.47	Not Detected	--	100	no
56-55-3	Benzo[a]anthracene	0.22	Not Detected	--	10	no
91-94-1	3,3'-Dichlorobenzidine	0.46	Not Detected	--	60	no
218-01-9	Chrysene	0.20	Not Detected	--	20	no
117-81-7	bis(2-Ethylhexyl)phthalate	0.51	1.56 ug/L	--	30	no
117-84-0	Di-n-octylphthalate	0.82	Not Detected	--	100	no
205-99-2	Benzo[b]fluoranthene	0.37	Not Detected	--	10	no
207-08-9	Benzo[k]fluoranthene	0.32	Not Detected	--	2	no
50-32-8	Benzo[a]pyrene	0.31	Not Detected	--	20	no
193-39-5	Indeno[1,2,3-cd]pyrene	0.79	Not Detected	--	20	no
53-70-3	Dibenz[a,h]anthracene	0.28	Not Detected	--	20	no
191-24-2	Benzo[g,h,i]perylene	0.40	Not Detected	--	nle	no

Table 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 1/25/99Location: 65Lab Sample ID: 4211.03(Dup 65)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	5.00	Not Detected	--	nle	no
62-75-9	N-nitroso-dimethylamine	0.94	Not Detected	--	20	no
62-53-3	Aniline	0.15	Not Detected	--	nle	no
111-44-4	bis(2-Chloroethyl)ether	0.48	Not Detected	--	10	no
541-73-1	1,3-Dichlorobenzene	0.23	Not Detected	--	600	no
106-46-7	1,4-Dichlorobenzene	0.23	Not Detected	--	75	no
100-51-6	Benzyl alcohol	0.18	Not Detected	--	nle	no
95-50-1	1,2-Dichlorobenzene	0.16	Not Detected	--	600	no
108-60-1	bis(2-chloroisopropyl)ether	0.61	Not Detected	--	300	no
621-64-7	n-Nitroso-di-n-propylamine	0.33	Not Detected	--	20	no
67-72-1	Hexachloroethane	0.46	Not Detected	--	10	no
98-95-3	Nitrobenzene	0.35	Not Detected	--	10	no
78-59-1	Isophorone	0.46	Not Detected	--	100	no
111-91-1	bis(2-Chloroethoxy)methane	0.26	Not Detected	--	nle	no
120-82-1	1,2,4-Trichlorobenzene	0.25	Not Detected	--	9	no
91-20-3	Naphthalene	0.25	Not Detected	--	nle	no
106-47-8	4-Chloroaniline	0.19	Not Detected	--	nle	no
87-68-3	Hexachlorobutadiene	0.38	Not Detected	--	1	no
91-57-6	2-Methylnaphthalene	0.16	Not Detected	--	nle	no
77-47-4	Hexachlorocyclopentadiene	1.50	Not Detected	--	50	no
91-58-7	2-Chloronaphthalene	0.32	Not Detected	--	nle	no
88-74-4	2-Nitroaniline	0.21	Not Detected	--	nle	no
131-11-3	Dimethylphthalate	0.18	Not Detected	--	7000	no
208-96-8	Acenaphthylene	0.19	Not Detected	--	nle	no

Table 3
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Matrix: (soil/water) WATER
 Date Sampled: 1/25/99 Location: 65 Lab Sample ID: 4211.03(Dup 65)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	0.31	Not Detected	--	nle	no
99-09-2	3-Nitroaniline	0.26	Not Detected	--	nle	no
83-32-9	Acenaphthene	0.26	Not Detected	--	400	no
132-64-9	Dibenzofuran	0.32	Not Detected	--	nle	no
121-14-2	2,4-Dinitrotoluene	0.36	Not Detected	--	10	no
84-66-2	Diethylphthalate	0.82	Not Detected	--	5000	no
86-73-7	Fluorene	0.29	Not Detected	--	300	no
7005-72-3	4-Chlorophenyl-phenylether	0.31	Not Detected	--	nle	no
100-01-6	4-Nitroaniline	0.90	Not Detected	--	nle	no
86-30-6	n-Nitrosodiphenylamine	0.23	Not Detected	--	20	no
103-33-3	Azobenzene	0.80	Not Detected	--	nle	no
101-55-3	4-Bromophenyl-phenylether	0.55	Not Detected	--	nle	no
118-74-1	Hexachlorobenzene	0.82	Not Detected	--	10	no
85-01-8	Phenanthrene	0.18	Not Detected	--	nle	no
120-12-7	Anthracene	0.19	Not Detected	--	2000	no
84-74-2	Di-n-butylphthalate	0.23	Not Detected	--	900	no
206-44-0	Fluoranthene	0.41	Not Detected	--	300	no
92-87-5	Benzidine	1.45	Not Detected	--	50	no
129-00-0	Pyrene	0.32	Not Detected	--	200	no
85-68-7	Butylbenzylphthalate	0.47	Not Detected	--	100	no
56-55-3	Benzo[a]anthracene	0.22	Not Detected	--	10	no
91-94-1	3,3'-Dichlorobenzidine	0.46	Not Detected	--	60	no
218-01-9	Chrysene	0.20	Not Detected	--	20	no
117-81-7	bis(2-Ethylhexyl)phthalate	0.51	1.47 ug/L	--	30	no
117-84-0	Di-n-octylphthalate	0.82	Not Detected	--	100	no
205-99-2	Benzo[b]fluoranthene	0.37	Not Detected	--	10	no
207-08-9	Benzo[k]fluoranthene	0.32	Not Detected	--	2	no
50-32-8	Benzo[a]pyrene	0.31	Not Detected	--	20	no
193-39-5	Indeno[1,2,3-cd]pyrene	0.79	Not Detected	--	20	no
53-70-3	Dibenz[a,h]anthracene	0.28	Not Detected	--	20	no
191-24-2	Benzo[g,h,i]perylene	0.40	Not Detected	--	nle	no

FIGURES

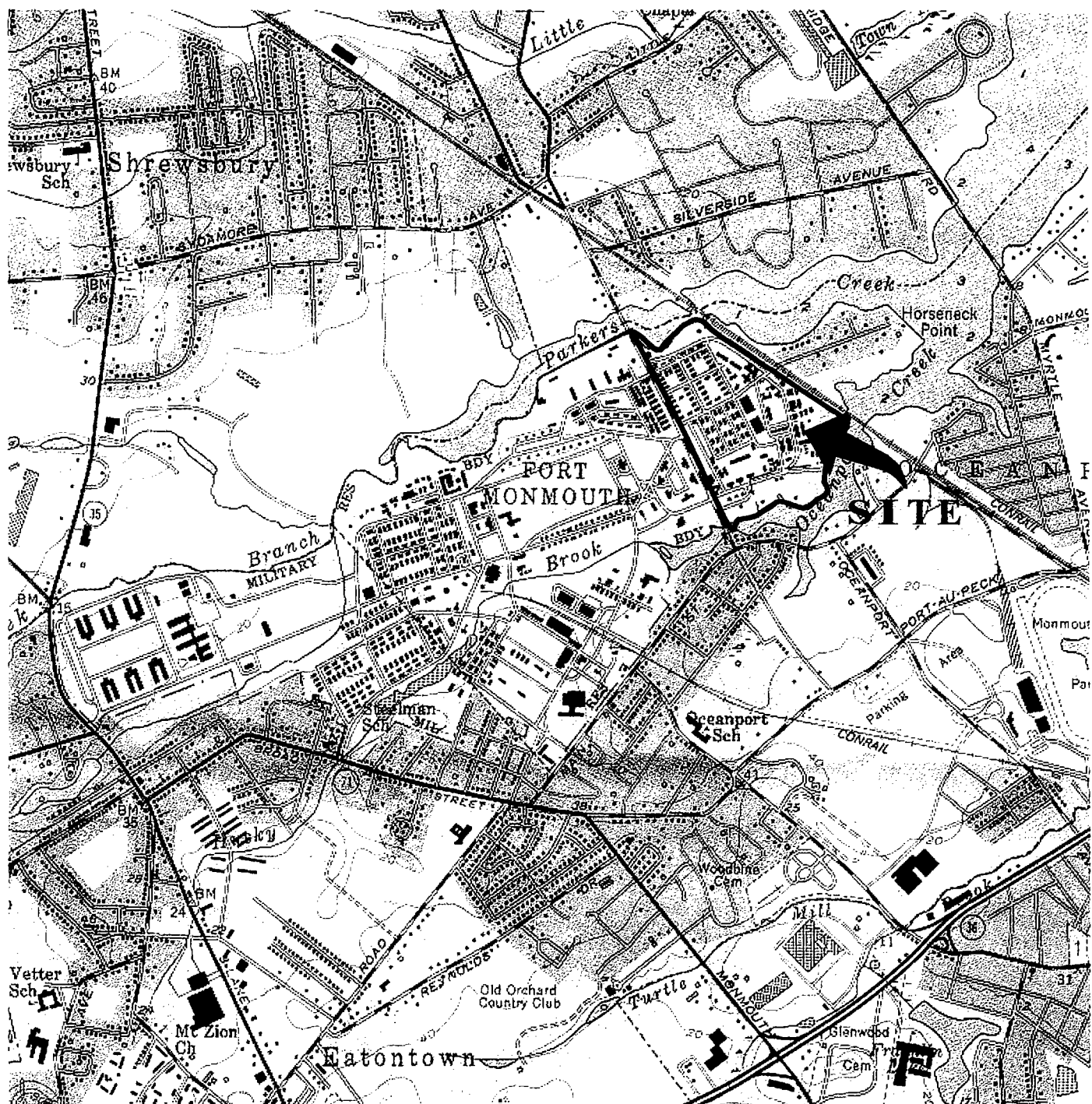


FIGURE 1

SITE LOCATION MAP
 Building 65
 Main Post-East
 Fort Monmouth Army Base
 Monmouth County, NJ



SMC Environmental
Services Group
 Engineers, Managers, Scientists & Planners
 Valley Forge, PA.

SCALE: 1"= 2000'

DATE: APRIL 1997

LONG BRANCH, N. J.
 40073-C8-TF-024

1954
 PHOTOREVISED 1981
 DMA 6164 I SE-SERIES V822

NEW
 JERSEY

QUADRANGLE LOCATION

Mapped, edited and published by the Geological Survey

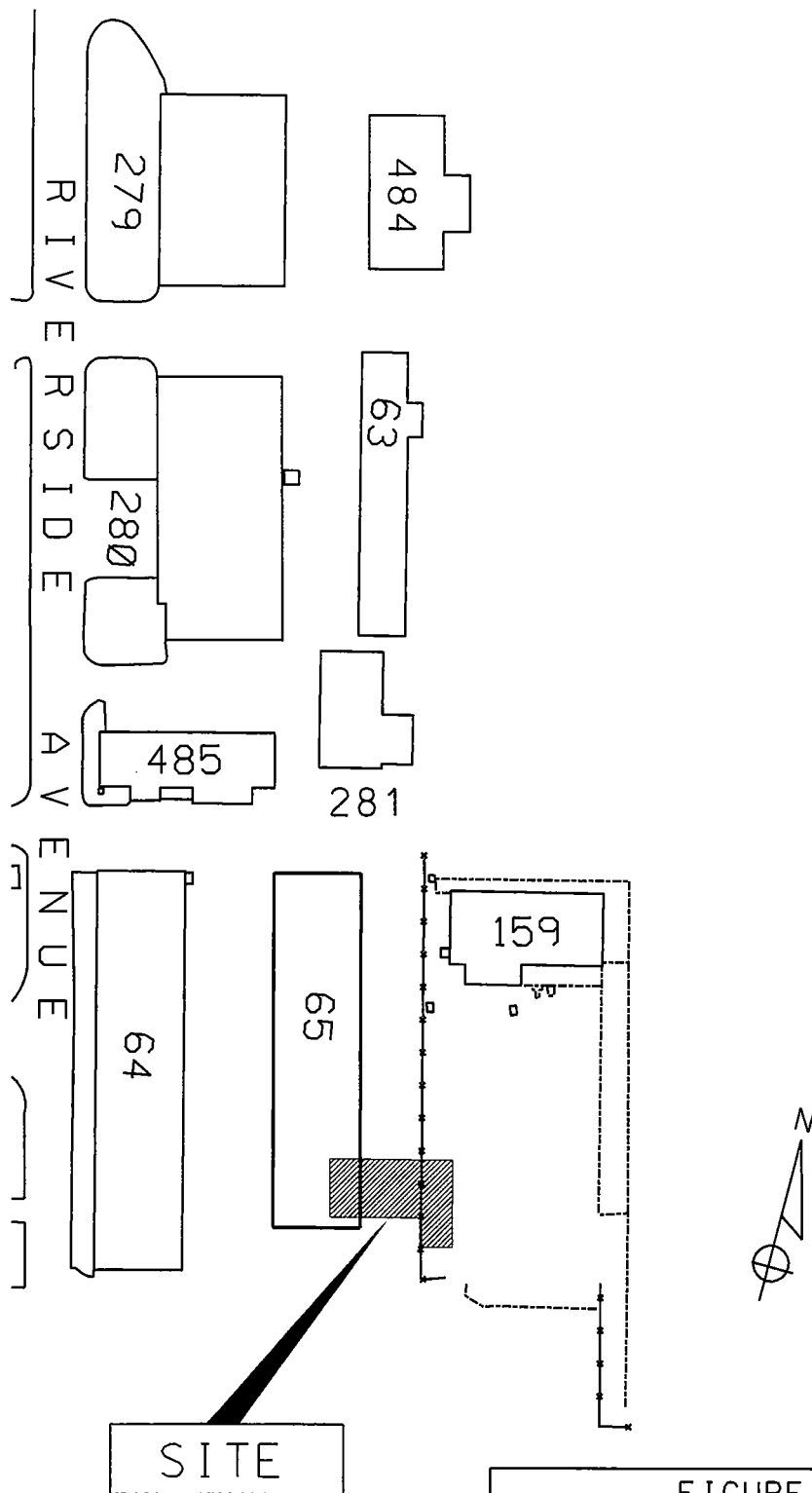


FIGURE 2
SITE MAP
BUILDING 65
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

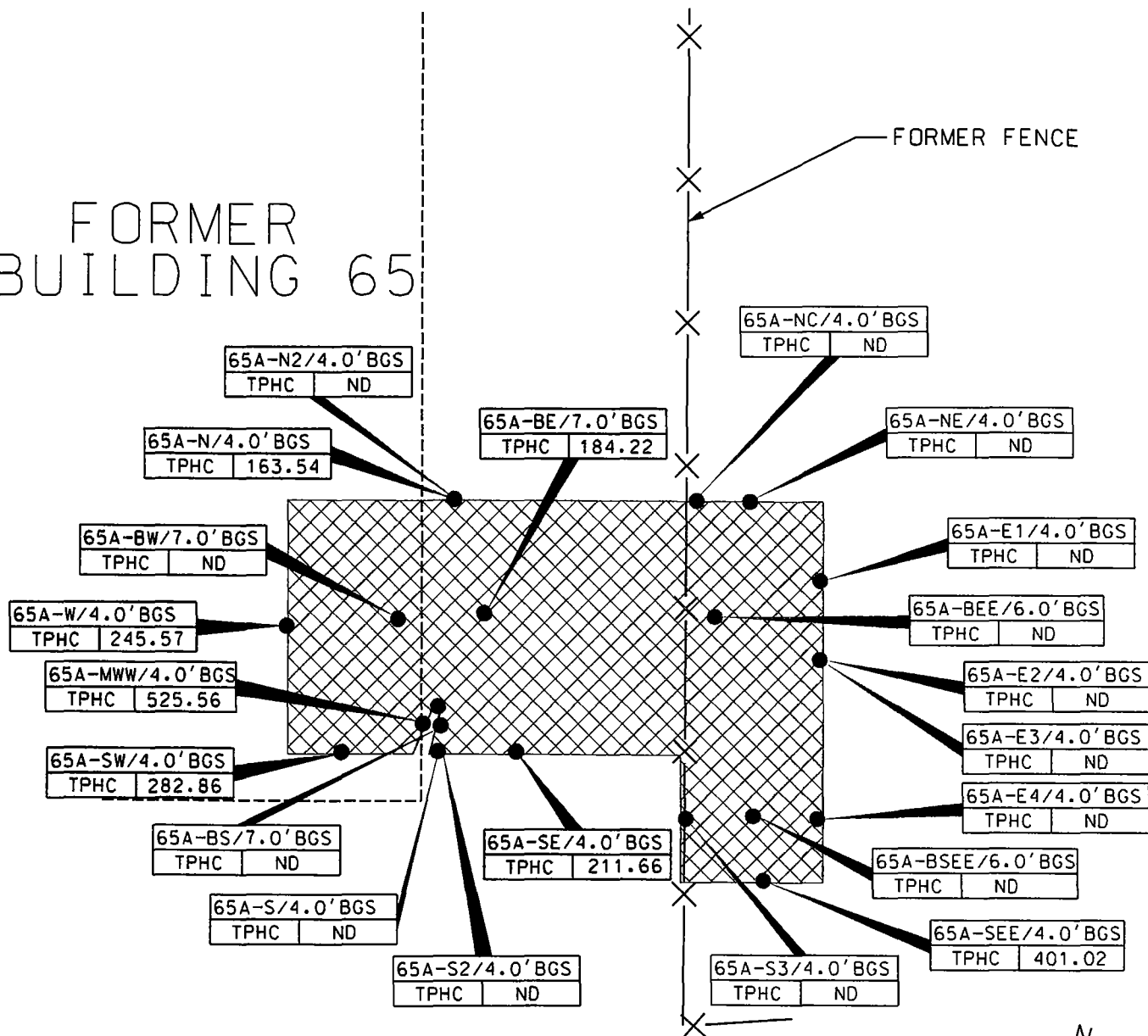


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Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.

SCALE: 1"=100'

DATE: APRIL 1997

FORMER BUILDING 65



LEGEND

- GROUND WATER MONITORING WELL
- SOIL SAMPLE LOCATION (APRIL 2, 1997)
- SOIL SAMPLE LOCATION (APRIL 8, 1997)
- SOIL SAMPLE LOCATION (APRIL 14, 1997)
- ▨ LIMIT OF EXCAVATION (APRIL 14, 1997)

NOTES:

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

FIGURE 3
SOIL SAMPLING LOCATION MAP
BUILDING 65
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



SMC ENVIRONMENTAL
SERVICES GROUP

Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.

SCALE: 1" = 20'

DATE: APRIL 1997

APPENDIX A

SOIL ANALYTICAL DATA PACKAGE

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

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

Project: Total Petroleum Hydrocarbons
2429
AREA-65A

Project # 2423
Date Rec. 04/02/97
Date Comp. 04/03/97
Released by:



Daniel K. Wright
Laboratory Director

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Method Summary

NJDEP Method OOA-QAM-025-10/97

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

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

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for petroleum hydrocarbons covering a range of C8-C42 including pristane and phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak.

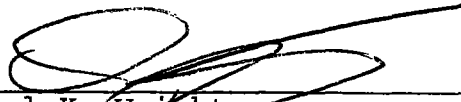
The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

PHC Conformance/Non-conformance Summary Report

	No	Yes
1. Method Detection Limits provided.	☐	☒
2. Method Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank. _____ _____	☒	☐
3. Matrix Spike Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	☐	☒
4. Duplicate Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	☐	☒
5. IR Spectra submitted for standards, blanks, & samples	☐	NA ☐
6. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	☐	☒
7. Analysis holding time met. (If not met, list number of days exceeded for each sample) _____ _____	☐	☒
Additional Comments: _____ _____ _____		

Laboratory Authentication Statement

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


Daniel K. Wright
Laboratory Manager



Tel (908)532-4359 Fax (908)532-3484 EMail:appleby@doim6.mon.nouth.army.mil

Chain of Custody Record

Page 1 of 1

print legibly

~~Custody.XIS37T3/97~~

21475

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 | ☒ |
| 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 | ☒ |

Laboratory Manager or Environmental Consultant's Signature

Date 1/22/94

Laboratory Certification #13461

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

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

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

Project: Total Petroleum Hydrocarbons
2429
AREA-65A

Project # 2438
Date Rec. 04/08/97
Date Comp. 04/08/97
Released by:



Daniel K. Wright
Laboratory Director

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NJDEP Method OQA-QAM-025-10/97

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

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for petroleum hydrocarbons covering a range of C8-C42 including pristane and phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak.

The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

PHC Conformance/Non-conformance Summary Report

	<u>No</u>	<u>Yes</u>
1. Method Detection Limits provided.	<u>—</u>	<u>✓</u>
2. Method Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank. _____ _____	<u>✓</u>	<u>—</u>
3. Matrix Spike Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	<u>—</u>	<u>✓</u>
4. Duplicate Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	<u>—</u>	<u>✓</u>
5. IR Spectra submitted for standards, blanks, & samples	<u>—</u>	<u>NA</u>
6. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	<u>—</u>	<u>✓</u>
7. Analysis holding time met. (If not met, list number of days exceeded for each sample) _____ _____	<u>—</u>	<u>✓</u>
Additional Comments: _____ _____ _____		

Laboratory Authentication Statement

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


Daniel K. Wright
Laboratory Manager

A black and white photograph showing a person sitting at a desk in a room. The person is facing away from the camera, looking out a window. There is a door visible in the background. The image is grainy and has a high-contrast, almost solarized appearance.

NJDEP Certification #13461

✓

Page 1 of 1

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

Client :	U.S. Army	Lab. ID # :	2438
	DPW. SELFM-PW-EV	Date Rec'd:	8-Apr-97
	Bldg. 173	Analysis Start:	8-Apr-97
	Ft. Monmouth, NJ 07703	Analysis Complete:	8-Apr-97

Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	P. Skelton	DICAR #:	
Ext. Meth:	Shake	Location #:	Area 65A

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
2438.01	65A-B5	1.00	15.79	85.34	174	ND
2438.02	65A-S	1.00	16.73	79.73	176	ND
2438.03	65A-S2	1.00	15.92	81.94	180	ND
METHOD BLANK	8-Apr-97	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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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

✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓

Laboratory Manager or Environmental Consultant's Signature
Date 1/21/93



Laboratory Certification #13461

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

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

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

Project: Total Petroleum Hydrocarbons
2429
AREA-65A

Project # 2450
Date Rec. 04/14/97
Date Compl. 04/16/97
Released by:



Daniel K. Wright
Laboratory Director

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1. Method Detection Limits provided.	☐	☒
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6. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	☐	☒
7. Analysis holding time met. (If not met, list number of days exceeded for each sample) _____ _____	☐	☒
Additional Comments: _____ _____ _____		

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Daniel K. Wright
Laboratory Manager



Fort Monmouth Environmental Testing Laboratory

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

Tel (908)532-4359 Fax (908)532-3484 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

Customer: <u>SMC / Chuck Appleby</u>		Project No: <u>2429</u>		Analysis Parameters								Comments: <u>Need TPH results ASAP</u> <u>RUSH</u>	
Phone #: <u>(610) 265-2700</u>		Location: <u>Area 6SA</u>		%	Solids	TPH	HOLD	VOT10	BN+15	PP Metals	PCB'S		
() DERA (X) OMA () Other: _____													
Samplers Name / Company: <u>Dan H. Daniels / SMC</u>				Sample #									
Lab Sample I.D.	Sample Location	Date	Time	Type	bottles								Remarks / Preservation Method
2450.01	6SA-BEE	4-14-97	11:45	So. 1	3	X	X						
.02	6SA-BSEE		11:50										
.03	6SA-NK		11:55										
.04	6SA-NE		12:00										
.05	6SA-E1		12:35										
.06	6SA-E2		12:40										
.07	6SA-E3		12:45										
.08	6SA-E4		12:50										
.09	6SA-SEE		12:55										
.10	6SA-S3		13:00										
Relinquished by (signature): <u>Dan H. Daniels</u>		Date/Time: <u>4-14-97 13:24</u>		Received by (signature): <u>D. Wright</u>		Relinquished by (signature):		Date/Time:		Received by (signature):			
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):			
Report Type: () Full, (X) Reduced, () Standard, () Screen / non-certified						Remarks: <u>HOLD Samples for VOT10, BN+15, PP Metals and PCB'S. I need to review TPH results first</u>							
Turnaround time: (X) Standard 4 wks, () Rush Days, () ASAP Verbal Hrs.													

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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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

✓
✓
✓
✓
✓
✓
✓
✓
✓
✓
✓

Laboratory Manager or Environmental Consultant's Signature

Date 6/21/96

Laboratory Certification #13461

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

APPENDIX B
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. 65

Field Location No. & Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
Trip Blank	4150.01	Aqueous	19-Dec-98	12/21/98
Field Blank	4150.02	Aqueous	19-Dec-98 08:45	12/21/98
Bldg. 65	4150.03	Aqueous	19-Dec-98 09:45	12/21/98
Field Dup.	4150.04	Aqueous	19-Dec-98	12/21/98

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

 2-5-99
Daniel Wright/Date
Laboratory Director

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CHAIN OF CUSTODY

000001

NJDEP Certification #13461[illegible]

CASE NARRATIVE

Site: Bldg. 65

Lab ID: 4150

The duplicate analysis was performed on Bldg. 65 (4150.03).

000003

FIELD DOCUMENTATION

000004

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

FOR BLDG. # 65

1. Methods

- A. This site was sampled using an existing monitor well that was found at this site. This well was covered with soil and had not been sampled for some time. The well was checked and deemed intact by myself. Only volatile and base neutrals were sampled for at this time.

2. Purging

- A. Three volumes of the standing water in the point were purged. The amount of water extracted was app. 14 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.

3. 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.

4. 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.

000005

3. Rinsed with potable water.
4. Rinse with distilled and deionized ASTM Type II water.

B. Field Blanks

1 Field blank was taken from this site.

- C. Sample bottles: Supplied by Environmental Sampling Supply, Oakland, Calif.
The sample bottles are certified clean and are sealed upon delivery.

Geoprobe Operator: Mark Laura
Employer: U.S. Army, Fort Monmouth
Phone Number: [732] 532-8990
NJDEP License #: J-1486

Mark Laura 12-30-98
Mark Laura / Date

000006

METHODOLOGY SUMMARY

00000'7

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.

000008

CONFORMANCE/ NON-CONFORMANCE SUMMARY

000009

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms labeled/Compounds identified
(Field samples and method blanks) yes
2. Retention times for chromatograms provided yes
3. GC/MS Tune Specifications
 - a. BFB Meet Criteria yes
 - b. DFTPP Meet Criteria yes
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series yes
6. GC/MS Calibration requirements
 - a. Calibration Check Compounds Meet Criteria yes
 - b. System Performance Check Compounds Meet Criteria yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank: NO
 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria yes

If not met, list those compounds and their recoveries, which fall outside the acceptable range:

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

If not met, were the calculations checked and the results qualified as "estimated"?

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria yes

(If not met, list those compounds and their recoveries, which fall outside the acceptable range)

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

000010

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

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria
(If not met, list those compounds, which fall outside the acceptable range)

yes

- a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction ND

11. Extraction Holding 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: _____

Additional Comments:

Laboratory Manager: _____

Date: 2-5-99

000011

LABORATORY CHRONICLE

000012

Laboratory Chronicle

Lab ID: 4150

Site: Bldg. 65

	Date	Hold Time
Date Sampled	12/19/98	NA
Receipt/Refrigeration	12/21/98	NA
Extractions		
1. Base Neutrals	12/21/98	7 Days
Analyses		
1. Volatile Organics	12/28,29/98	14 Days
2. Base Neutrals	12/28,29/98	40 Days

000013

VOLATILE ORGANICS

000014

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

000015

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

Data File Nam vb02437.d
 Operator Skelton
 Date Acquired 28 Dec 98 9:59 am

Sample Name Vblk76
 Field ID Vblk76
 Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (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	
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
 R.T. = Retention Time

000016

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

VbIk76

Lab Name: FMETL Project 980932
NJDEP# 13461 Case No.: 4150 SDG No Location UST
Matrix (soil/water) WATER Lab Sample ID: VbIk76
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB02437.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: not dec. Date Analyzed: 12/28/98
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: 0

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

Data File Nam **vb02459.d**
 Operator **Skelton**
 Date Acquired **29 Dec 98 3:10 am**

Sample Name **4150.01**
 Field ID **Trip Blank**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (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	
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-Dichloropropene			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
 R.T. = Retention Time

000013

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Trip Blank

Lab Name: FMETL Project 980932
NJDEP# 13461 Case No.: 4150 SDG No Location UST
Matrix (soil/water) WATER Lab Sample ID: 4150.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB02459.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: not dec. Date Analyzed: 12/29/98
GC Column: HP5MS ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

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

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

Data File Nam **vb02460.d**
 Operator **Skelton**
 Date Acquired **29 Dec 98 3:54 am**

Sample Name **4150.02**
 Field ID **Field Blank**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (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	
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-Dichloropropene			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
 R.T. = Retention Time

000020

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Blank

Lab Name: FMETL Project 980932
NJDEP# 13461 Case No.: 4150 SDG No Location UST
Matrix (soil/water) WATER Lab Sample ID: 4150.02
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB02460.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: not dec. Date Analyzed: 12/29/98
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: 0

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

Data File Nam **vb02461.d**
 Operator **Skelton**
 Date Acquired **29 Dec 98 4:39 am**

Sample Name **4150.03**
 Field ID **Bldg65**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (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	
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-Dichloropropene			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
 R.T. = Retention Time

000022

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Bldg65

Lab Name: FMETL Project 980932
NJDEP# 13461 Case No.: 4150 SDG No Location UST
Matrix (soil/water) WATER Lab Sample ID: 4150.03
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB02461.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: not dec. Date Analyzed: 12/29/98
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: 0

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

Data File Nam **vb02462.d**
 Operator **Skelton**
 Date Acquired **29 Dec 98 5:24 am**

Sample Name **4150.04**
 Field ID **Field Dup**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (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	
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-Dichloropropene			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
 R.T. = Retention Time

000024

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Dup

Lab Name: FMETL Project 980932
NJDEP# 13461 Case No.: 4150 SDG No Location UST
Matrix (soil/water) WATER Lab Sample ID: 4150.04
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB02462.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: not dec. Date Analyzed: 12/29/98
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: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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BASE NEUTRAL

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

Data File Name **BNA01737.D**
 Operator **Skelton**
 Date Acquired **28 Dec 1998 10:05 pm**

Sample Name **Sblk185**
 Misc Info **Sblk185 A 98122**
 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 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			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	
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			not detected	NLE	2.13 ug/L	
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			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	

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

Qualifiers

E = Value exceeded linear range
 D = Value from dilution
 B = Compound in related blank
 PQL = Practical Quantitation Limit

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

000050

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Sblk185

Lab Name: FMETL Lab Code 13461
Project 980211 Case No.: 4150 Location 65 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: Sblk185
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA01737.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: decanted: (Y/N) N Date Extracted: 12/21/98
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/28/98
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Base Neutral Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **baa01747.d**
 Operator **Skelton**
 Date Acquired **29 Dec 1998 5:05 am**

Sample Name **4150.02**
 Misc Info **Field Blank**
 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 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			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	
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			not detected	NLE	2.13 ug/L	
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			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	

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

Qualifiers

E = Value exceeded linear range
 D = Value from dilution
 B = Compound in related blank
 PQL = Practical Quantitation Limit

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

000052

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Blank

Lab Name: FMETL Lab Code 13461
Project 980211 Case No.: 4150 Location 65 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 4150.02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA01747.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: decanted: (Y/N) N Date Extracted: 12/21/98
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/98
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Base Neutral Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **bn01748.d**
 Operator **Skelton**
 Date Acquired **29 Dec 1998 5:47 am**

Sample Name **4150.03**
 Misc Info **Bldg65**
 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 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			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	
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			not detected	NLE	2.13 ug/L	
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			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	

* Higher of PQL's and Ground Water Criteria as per NJAC 7.9-

Qualifiers

E = Value exceeded linear range
 D = Value from dilution
 B = Compound in related blank
 PQL = Practical Quantitation Limit

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

000054

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Bldg.65

Lab Name: FMETL Lab Code: 13461
Project 980211 Case No.: 4150 Location 65 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 4150.03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA01748.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: decanted: (Y/N) N Date Extracted: 12/21/98
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/98
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Base Neutral Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name bna01749.d
 Operator Skelton
 Date Acquired 29 Dec 1998 6:28 am

Sample Name 4150.04
 Misc Info Field Dup
 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 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			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	
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			not detected	NLE	2.13 ug/L	
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			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	

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

Qualifiers

E = Value exceeded linear range
 D = Value from dilution
 B = Compound in related blank
 PQL = Practical Quantitation Limit

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

000056

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Dup

Lab Name: FMETL Lab Code 13461
Project 980211 Case No.: 4150 Location 65 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 4150.04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA01749.D
Level: (low/med) LOW Date Received: 12/21/98
% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/21/98
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/98
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
------------	---------------	----	------------	---

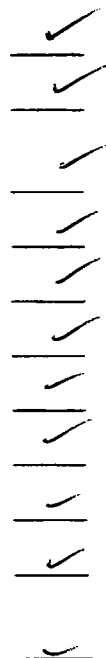
LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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
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



Laboratory Manager or Environmental Consultant's Signature

Date 2/5/99

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a horizontal line.

Laboratory Certification #13461

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

000078

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

000079

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

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

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

NJDEP LABORATORY CERTIFICATION # 13461

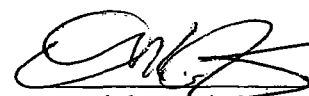


ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: UST Program

Bldg. 65

Field Location No. & Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
Trip Blank	4210.01	Aqueous	25-Jan-99	01/25/99
Field Blank	4210.02	Aqueous	25-Jan-99 13:00	01/25/99
Bldg. 65	4211.01	Aqueous	25-Jan-99 10:10	01/25/99
Bldg. 65	4211.02	Aqueous	25-Jan-99 10:15	01/25/99
Field Dup.	4211.03	Aqueous	25-Jan-99	01/25/99
Bldg. 65 (Special)	4211.04	Aqueous	25-Jan-99 10:15	01/25/99

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15, PEST/PCB
TAL METALS


Daniel Wright/Date
Laboratory Director

3-11-99

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Sampling

000001

U.S. ARMY FORT MONMOUTH MONITORING WELL SAMPLING DATA

LOCATION: Bldg. 65
MW#: 01
NJDEP ID #: 29-31795
NJDEP CERT #: 13461
SAMPLING CONTRACTOR: TVS
SAMPLER: Corey McCormack
DATE: 01/25/99
WEATHER: Overcast, cold.
TIDE: High-Outgoing.

ELEV. OF CASING SURVEY MARK: Not Available ft
DEPTH TO WATER: 2.12 ft
DEPTH OF WELL: 11.60 ft
HEIGHT OF WATER: 948 ft
(9.48) X .65 X 3 = 18.48
GALLONS OF H2O TO BE PURGED: 19 gal
PURGE METHOD: (FLOW OF <0.5 TO >5.0 gpm) : PERISTALTIC
PURGE RATE: 0.23 gpm
Hnu READING: 0.0 ppm

PURGE START TIME: 08:47

pH	6.54	su	TEMP	15.7	°C
DISSOLVED O2	9.12	ppm	SPECIFIC CONDUCTIVITY	23.4	us/cm

PURGE END TIME: 10:09

pH	6.51	su	TEMP	15.1	°C
DISSOLVED O2	8.27	ppm	SPECIFIC CONDUCTIVITY	23.2	us/cm

DEPTH TO H2O AFTER PURGE AND BEFORE SAMPLING: 2.76 ft
(SAMPLING METHOD: DEDICATED(LAW NJDEP FSPM 1992) TEFLON ®
BAILER)

TOTAL VOLUME PURGED: 19 gal

pH	6.50	su	TEMP	14.9	°C
DISSOLVED O2	8.23	ppm	SPECIFIC CONDUCTIVITY	21.7	us/cm

COMMENTS: Cloudy.

000002

Fort Monmouth Environmental Testing Laboratory

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

Tel (732)532-4359 Fax (732)532-6263 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]

00004

METHODOLOGY SUMMARY

000005

Method Summary

EPA SW-846 Method 8260

Gas Chromatographic Determination of Volatiles in Soil

A 50ul volume of methanol soil sample is added to 5 ml aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample is purged and desorbed into a GC/MS system. Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture, methanol volume and concentration.

EPA SW-846 Method 8270

Gas Chromatographic Determination of Semi-volatiles in Soil

Surrogates are added to a 10 gram soil sample which has been dried with sodium sulfate. The sample is then extracted using a Soxhlet extractor. The extract is concentrated to 1 ml. Internal standards are added and the sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent moisture and concentration.

EPA SW-846 Method 8080

Gas Chromatographic Determination of Pesticides and PCB's in Soil

Surrogates are added to a 10 gram soil sample which has been dried with sodium sulfate. The sample is then extracted using a Soxhlet extractor. The extract is concentrated to 10 ml. Internal standards are added and the sample is injected into a GC/ECD system. Pesticides and PCB's are identified and quantitated. The final concentration is calculated using soil weight, percent moisture and concentration.

Methodology Summary

EPA SW-846 Method 3151, 3rd Edition Base Manual with Final Updates I, II, IIA, IIB, and III: Digestion TAL Metals

Milestone MLS 1200 MEGA

A representative sample of 1.0 to 0.5 g is digested in 10 ml of concentrated nitric acid for 10 minutes using microwave heating with a suitable laboratory microwave unit. The sample and acid are placed in a fluorocarbon (TFM) microvessel. This vessel is capped and heated in the microwave unit. After cooling the vessel contents are filtered and then diluted to 100ml volume and analyzed by ICP.

EPA SW-846 Method 6010A, 3rd Edition Base Manual with Final Updates I, II, IIA, IIB, and III: ICP TAL Metals

Perkin Elmer OPTIMA 3000 DV

The method measures element-emitted light by optical spectrometry. Samples are nebulized and the resulting aerosol is transported to the plasma torch. Radio-frequency inductively coupled plasma produces element-specific atomic-line emission spectra. The spectra are dispersed by a grating spectrometer, and a Segmented-array Charged-coupled-device Detector (SCD) monitors the intensities of the lines. Background and inter-elemental correction is used for trace element determinations.

EPA SW-846 Method 7471A, 3rd Edition Base Manual with Final Updates I, II, IIA, IIB, and III: Mercury

Varian SpectrAA-640, VGA-77

The flameless AA procedure is a physical method based on the absorption of radiation at 253.7 nm by mercury vapor. The mercury is reduced to the elemental state and aerated from solution in a closed system. The mercury vapor passes through a cell positioned in the light path of an atomic absorption spectrometer. Absorbance (peak height) is measured as a function of mercury concentration and recorded in the usual manner.

LABORATORY CHRONICLE

000008

Laboratory Chronicle

Lab ID: 4211

Site: Bldg. 65

	Date	Hold Time
Date Sampled	01/25/99	NA
Receipt/Refrigeration	01/25/99	NA
Extractions		
1. BN's	01/26/99	14 days
2. Pest/PCB	01/28/99	14 days
Analyses		
1. Volatile Organics	02/5/99	14 days
2. Base Neutrals	01/26,27/99	40 days
3. Pest/PCB	02/03/99	40 day
4. Metals	02/10/99	6 months
5. Mercury	02/08/99	28 days

000009

CONFORMANCE/ NON-CONFORMANCE SUMMARY

000010

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms labeled/Compounds identified
(Field samples and method blanks) yes
2. Retention times for chromatograms provided yes
3. GC/MS Tune Specifications
 - a. BFB Meet Criteria yes
 - b. DFTPP Meet Criteria yes
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series yes
6. GC/MS Calibration requirements
 - a. Calibration Check Compounds Meet Criteria yes
 - b. System Performance Check Compounds Meet Criteria yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank: NO
 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria yes

If not met, list those compounds and their recoveries, which fall outside the acceptable range:

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

If not met, were the calculations checked and the results qualified as "estimated"? _____
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria yes

(If not met, list those compounds and their recoveries, which fall outside the acceptable range)

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

000011

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

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria
(If not met, list those compounds, which fall outside the acceptable range)

yes

- a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction NA

11. Extraction Holding 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: _____

Additional Comments:

Laboratory Manager: 

Date: 3-12-99

000012

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms Labeled/Compounds Identified
(Field Samples and Method Blanks) yes
2. Retention times for chromatograms provided yes
3. Standards Summary Meet Criteria yes
4. Calibration – Initial Calibration performed before
sample analysis and continuing calibration performed
within 12 hours of sample analysis yes
5. Blank Contamination – If yes, list compounds and concentrations
in each blank: no
 - a. VOA Fraction NA
 - b. B/N Fraction NA
 - c. Acid Fraction NA
 - d. Pesticide/PCB's _____
 - e. Other _____
6. Surrogate Recoveries Meet Criteria yes
If not met, list those compounds and their recoveries
which fall outside the acceptable range:
 - a. VOA Fraction NA
 - b. B/N Fraction NA
 - c. Acid Fraction NA
 - d. Pesticide/PCB's _____
 - e. Other _____

If not met, were the calculations checked and the results qualified as "estimated"? _____
7. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria yes
If not met, list those compounds and their recoveries
which fall outside the acceptable range:
 - a. VOA Fraction NA
 - f. B/N Fraction NA
 - g. Acid Fraction NA
 - h. Pesticide/PCB's _____
 - i. Other _____
8. Retention Time Summary for primary and confirmation analyses meet criteria yes
9. Were samples run on dissimilar columns? yes

000013

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT
(CONTINUED)

Indicate
Yes, No, N/A

10. Extraction Holding Time Met

yes

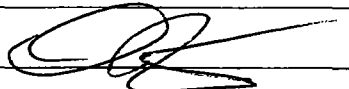
If not met, list number of days exceeded for each sample: _____

11. Analysis Holding Time Met

yes

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: 

Date: 3-12-99

000014

METALS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY REPORT

Indicate
Yes, No, N/A

1. Initial and Continuing Calibration Verifications Meet Criteria

yes

2. ICP Interference Check Sample Results Meet Criteria

yes

3. Serial Dilutions Meet Criteria

yes

4. Laboratory Control Samples Meet Criteria

yes

5. Preparation, Method and Calibration Blank Contamination
If yes, list compounds and concentrations in each blank ug/L

yes

Cd = 3.5 Ni = 123

Cu = 34.6 Zn = 10.0

Pb = 41.0

Mn = 1.8

6. Spike Sample Recoveries Meet Criteria

yes

7. Duplicates Meet Criteria

yes

8. Analysis Holding Time Met
If not met, list number of days exceeded for each sample

yes

Additional Comments

Digestion Chemist

[Signature]

Date

3-12-99

ICP Operator

[Signature]

Date

3-12-99

000015

VOLATILE ORGANICS

000016

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

000017

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

Data File **V05694.D**
 Operator **Skelton**
 Date Acquired **5 Feb 1999 10:41 am**

Sample Name **Vblk155**
 Field ID **Vblk155**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	
	Dichlorodifluoromethane			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 ether			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-Dichloropropene			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-Tetrachloroethane			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 2-Sept-97

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Vblk155

Lab Name: FMETL Project 980932
NJDEP # 13461 Case No.: 4210 Location UST SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: Vblk155
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V05694.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: not dec. _____ Date Analyzed: 2/5/99
GC Column: RTX-502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
---------	---------------	----	------------	---

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

Data File **V05695.D**
 Operator **Skelton**
 Date Acquired **5 Feb 1999 11:37 am**

Sample Name **4210.01**
 Field ID **Trip Blank**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	
	Dichlorodifluoromethane			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 ether			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-Dichloropropene			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-Tetrachloroethane			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 2-Sept-97

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Trip Blank

Lab Name: FMETL Project 980932
NJDEP # 13461 Case No.: 4210 Location UST SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 4210.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V05695.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: not dec. _____ Date Analyzed: 2/5/99
GC Column: RTX-502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-54-3	Hexane	14.25	8	JN

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

Data File **V05696.D**
 Operator **Skelton**
 Date Acquired **5 Feb 1999 12:19 pm**

Sample Name **4210.02**
 Field ID **Field Blank**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	
	Dichlorodifluoromethane			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 ether			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-Dichloropropene			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-Tetrachloroethane			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. 7:9-6.2-Sept-97

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Blank

Lab Name: FMETL Project 980932
NJDEP # 13461 Case No.: 4210 Location UST SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 4210.02
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V05696.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: not dec. Date Analyzed: 2/5/99
GC Column: RTX-502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-54-3	Hexane	14.25	17	JN

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

Data File **V05700.D**
 Operator **Skelton**
 Date Acquired **5 Feb 1999 3:07 pm**

Sample Name **4211.01**
 Field ID **Bldg65**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	
	Dichlorodifluoromethane			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 ether			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-Dichloropropene			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-Tetrachloroethane			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 2-Sept-97

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Bldg65

Lab Name: FMETL Project 980932
NJDEP # 13461 Case No.: 4211 Location UST SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 4211.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V05700.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: not dec. _____ Date Analyzed: 2/5/99
GC Column: RTX-502 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: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-54-3	Hexane	14.24	6	JN

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

Data File **V05701.D**
 Operator **Skelton**
 Date Acquired **5 Feb 1999 3:49 pm**

Sample Name **4211.03**
 Field ID **Field Dup**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifiers
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	
	Dichlorodifluoromethane			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 ether			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-Dichloropropene			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-Tetrachloroethane			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 2-Sept-97

Qualifiers

B = Compound found in related blank
 E = Value above linear range
 D = Value from dilution
 PQL = Practical Quantitation Limit

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Dupe

Lab Name: FMETL Project 980932
NJDEP # 13461 Case No.: 4211 Location UST SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 4211.03
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: V05701.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: not dec. _____ Date Analyzed: 2/5/99
GC Column: RTX-502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-54-3	Hexane	14.24	7	JN

SEMI VOLATILES

000056

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

Data File Name **BN02696.D**
 Operator **Bhaskar**
 Date Acquired **26-Jan-99**

Sample Name **Sblk196**
 Misc Info **Sblk196 A 990126**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.94 ug/L	
62-53-3	Aniline			not detected	NLE	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.48 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.23 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.16 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.61 ug/L	
67-72-1	Hexachloroethane			not detected	10	0.33 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.46 ug/L	
78-59-1	Isophorone			not detected	100	0.35 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.46 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.25 ug/L	
91-20-3	Naphthalene			not detected	NLE	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.38 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.50 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	0.18 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.26 ug/L	
83-32-9	Acenaphthene			not detected	400	0.26 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.36 ug/L	
84-66-2	Diethylphthalate			not detected	5000	0.82 ug/L	
86-73-7	Fluorene			not detected	300	0.29 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	0.23 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.82 ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.18 ug/L	
120-12-7	Anthracene			not detected	2000	0.19 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	0.23 ug/L	
206-44-0	Fluoranthene			not detected	300	0.41 ug/L	
92-87-5	Benzidine			not detected	50	1.45 ug/L	
129-00-0	Pyrene			not detected	200	0.32 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.47 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	0.22 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.46 ug/L	
218-01-9	Chrysene			not detected	20	0.20 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	24.54	51621	1.33 ug/L	30	0.51 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	0.82 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	0.37 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	0.32 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	0.31 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.79 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.28 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.40 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

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

000057

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

Sblk196

Lab Name: FMETL Lab Cod 13461
Project: UST Case No.: 4211 Location: 65 SDG No: _____
Matrix: (soil/water) WATER Lab Sample ID: Sblk196
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN02696.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: _____ decanted: (Y/N) N Date Extracted: 1/26/99
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/26/99
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BN02701.D**
 Operator **Bhaskar**
 Date Acquired **26-Jan-99**

Sample Name **4210.02**
 Misc Info **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.94 ug/L	
62-53-3	Aniline			not detected	NLE	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.48 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.23 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.16 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.61 ug/L	
67-72-1	Hexachloroethane			not detected	10	0.33 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.46 ug/L	
78-59-1	Isophorone			not detected	100	0.35 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.46 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.25 ug/L	
91-20-3	Naphthalene			not detected	NLE	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.38 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.50 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	0.18 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.26 ug/L	
83-32-9	Acenaphthene			not detected	400	0.26 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.36 ug/L	
84-66-2	Diethylphthalate			not detected	5000	0.82 ug/L	
86-73-7	Fluorene			not detected	300	0.29 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	0.23 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.82 ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.18 ug/L	
120-12-7	Anthracene			not detected	2000	0.19 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	0.23 ug/L	
206-44-0	Fluoranthene			not detected	300	0.41 ug/L	
92-87-5	Benzidine			not detected	50	1.45 ug/L	
129-00-0	Pyrene			not detected	200	0.32 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.47 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	0.22 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.46 ug/L	
218-01-9	Chrysene			not detected	20	0.20 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	24.54	50140	1.26 ug/L	30	0.51 ug/L	B
117-84-0	Di-n-octylphthalate			not detected	100	0.82 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	0.37 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	0.32 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	0.31 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.79 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.28 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.40 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

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

000059

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

Field Blank

Lab Name: FMETL Lab Cod 13461
 Project: UST Case No.: 4210 Location: 74 SDG No: _____
 Matrix: (soil/water) WATER Lab Sample ID: 4210.02
 Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN02701.D
 Level: (low/med) LOW Date Received: 1/25/99
 % Moisture: _____ decanted: (Y/N) N Date Extracted: 1/26/99
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/26/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BN02705.D**
 Operator **Bhaskar**
 Date Acquired **27-Jan-99**

Sample Name **4211.02**
 Misc Info **Bldg65**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.94 ug/L	
62-53-3	Aniline			not detected	NLE	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.48 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.23 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.16 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.61 ug/L	
67-72-1	Hexachloroethane			not detected	10	0.33 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.46 ug/L	
78-59-1	Isophorone			not detected	100	0.35 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.46 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.25 ug/L	
91-20-3	Naphthalene			not detected	NLE	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.38 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.50 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	0.18 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.26 ug/L	
83-32-9	Acenaphthene			not detected	400	0.26 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.36 ug/L	
84-66-2	Diethylphthalate			not detected	5000	0.82 ug/L	
86-73-7	Fluorene			not detected	300	0.29 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	0.23 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.82 ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.18 ug/L	
120-12-7	Anthracene			not detected	2000	0.19 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	0.23 ug/L	
206-44-0	Fluoranthene			not detected	300	0.41 ug/L	
92-87-5	Benzidine			not detected	50	1.45 ug/L	
129-00-0	Pyrene			not detected	200	0.32 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.47 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	0.22 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.46 ug/L	
218-01-9	Chrysene			not detected	20	0.20 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	24.54	51232	1.56 ug/L	30	0.51 ug/L	B
117-84-0	Di-n-octylphthalate			not detected	100	0.82 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	0.37 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	0.32 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	0.31 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.79 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.28 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.40 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

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

000061

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

Bldg.65

Lab Name: FMETL Lab Cod 13461
Project: UST Case No.: 4211 Location: 65 SDG No:
Matrix: (soil/water) WATER Lab Sample ID: 4211.02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN02705.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: decanted: (Y/N) N Date Extracted: 1/26/99
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/27/99
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BN02706.D**
 Operator **Bhaskar**
 Date Acquired **27-Jan-99**

Sample Name **4211.03**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	5.00 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.94 ug/L	
62-53-3	Aniline			not detected	NLE	0.15 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.48 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.23 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.18 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.16 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.61 ug/L	
67-72-1	Hexachloroethane			not detected	10	0.33 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.46 ug/L	
78-59-1	Isophorone			not detected	100	0.35 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.46 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	0.26 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.25 ug/L	
91-20-3	Naphthalene			not detected	NLE	0.25 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	0.19 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.38 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.16 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.50 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.32 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.21 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	0.18 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.19 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.31 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.26 ug/L	
83-32-9	Acenaphthene			not detected	400	0.26 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.32 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.36 ug/L	
84-66-2	Diethylphthalate			not detected	5000	0.82 ug/L	
86-73-7	Fluorene			not detected	300	0.29 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.31 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	0.90 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	0.23 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.80 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.55 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.82 ug/L	
85-01-8	Phenanthrene			not detected	NLE	0.18 ug/L	
120-12-7	Anthracene			not detected	2000	0.19 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	0.23 ug/L	
206-44-0	Fluoranthene			not detected	300	0.41 ug/L	
92-87-5	Benzidine			not detected	50	1.45 ug/L	
129-00-0	Pyrene			not detected	200	0.32 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	0.47 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	0.22 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	0.46 ug/L	
218-01-9	Chrysene			not detected	20	0.20 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	24.54	47770	1.47 ug/L	30	0.51 ug/L	B
117-84-0	Di-n-octylphthalate			not detected	100	0.82 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	0.37 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	0.32 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	0.31 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.79 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.28 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.40 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

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

000063

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

Dupe

Lab Name: FMETL Lab Cod 13461
Project: UST Case No.: 4211 Location: 65 SDG No: _____
Matrix: (soil/water) WATER Lab Sample ID: 4211.03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN02706.D
Level: (low/med) LOW Date Received: 1/25/99
% Moisture: _____ decanted: (Y/N) N Date Extracted: 1/26/99
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/27/99
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

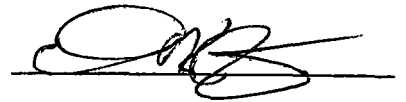
CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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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**

APPENDIX C PHOTOGRAPHS



REMEDATION AROUND GROUNDWATER
MONITORING WELL WITHIN THE EXCAVATION



REMEDATION ON THE OTHER SIDE OF THE
FENCE



**SMC ENVIRONMENTAL
SERVICES GROUP**
Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.



COMPLETED EXCAVATION ON BOTH SIDES OF
THE FENCE



**SMC ENVIRONMENTAL
SERVICES GROUP**

Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.