United States Army
Fort Monmouth, New Jersey

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Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 1104
Main Post-West Area

NJDEP UST Registration No. 81533-164

May 2001

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 1104

MAIN POST-WEST AREA
NJDEP UST REGISTRATION NO. 81533-164

MAY 2001

PREPARED FOR:

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

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PROJECT NO. 4936-127

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UST Closure

On August 23, 2000, a steel underground storage tank (UST) was closed by removal in accordance with New Jersey Department of Environmental Protection (NJDEP) closure procedures at the Main Post-West area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0081533-164 (Fort Monmouth ID No. 1104), was located northeast of Building 1104. UST No. 0081533-164 was a 1,000-gallon #2 fuel oil UST.

Site Assessment

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements for Site Remediation*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. Numerous holes were noted in the UST. Soils at the location of the holes were dark in color and appeared to be contaminated. Approximately 30 cubic yards of potentially contaminated soil were removed from the excavated area and stored at the Fort Monmouth petroleum contaminated soil staging area. Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 281.00 mg/kg. Groundwater was encountered at 8.5 feet below ground surface and no sheen was observed on groundwater.

All post excavation soil samples collected from the UST excavation at Building 1104 contained TPHC concentrations below the NJDEP 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). Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill. The excavation site was then restored to its original condition.

In response to the observation of potentially contaminated soil near the water table, three (3) groundwater samples were collected at Building 1104. On October 6, 2000, January 18, 2001, and April 21, 2001, Building 1104 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs+15), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs+15). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC) with the exception of benzene, xylenes, and n-nitrosodiphenylamine. Benzene was detected at concentrations of 12.79 ug/L, 129.15 ug/L, and 4.43 ug/L, above the GWQC of 1.00 ug/L. Xylenes were detected at a concentration of 52.85 ug/L, above the GWQC of 40.00 ug/L. N-nitrosodiphenylamine was detected at concentrations of 34.41 ug/L and 139.35 ug/L, above the GWQC of 20.00 ug/L.

Based on the analytical results of the groundwater sample collected on October 6, 2000,

January 18, 2001, and April 21, 2001, groundwater quality at Building 1104 exceeds the New Jersey Groundwater Quality Standard for benzene, xylenes, and n-nitrosodiphenylamine. The installation of a monitoring well and the collection of samples on a quarterly basis is recommended. The analysis will determine if the levels of benzene, xylenes, and n-nitrosodiphenylamine detected previously are declining. The need for any additional actions to address groundwater quality should be evaluated following receipt of the additional groundwater data.

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

No further action for soil is proposed in regard to the closure and site assessment of UST No. 0081533-164 at Building 1104.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 81533-164, was closed at Building 1104 at the Main Post-West area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on August 23, 2000. Refer to the site location map on Figure 1. This report presents the results of the Department of Public Works' (DPW) implementation of the UST Decommissioning/Closure Plan approved by the NJDEP. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 81533-164 complied with all applicable Federal, State, and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP approved Decommissioning/Closure Plan were posted onsite for inspection. The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 81533-164 proceeded under the approval of the NJDEP Bureau of Federal Case Management (NJDEP-BFCM). The Standard Reporting Form and signed Site Assessment Summary form for UST No. 81533-164 are included in Appendices A and B, respectively.

This UST Closure and Site Investigation Report has been prepared by Versar, to assist the U.S. Army DPW in complying with the NJDEP regulations. The applicable NJDEP regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. October 1990 and revisions dated November 1, 1991).

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

1.2 SITE DESCRIPTION

Building 1104 is located in the Main Post-West area of the Fort Monmouth Army Base. UST No. 0081533-164 was located northeast of Building 1104. No product lines were found during the excavation of the UST A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 1104. Included is a description of the regional geology of the area

surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

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

Local Geology

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

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

Hydrogeology

The water table aquifer in the Main Post area is identified as part of the "composite confining units," or minor aquifers. The minor aquifers include the Navesink formation, Red

Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

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

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

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.

Building 1104 is located approximately 400 feet west of an unnamed stream, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 1104 is anticipated to be to the east.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- The contractor performing the closure prior to excavation activities

identified all underground obstructions (utilities, etc.).

- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.

- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.

- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.

- A Sub-Surface Evaluator from the DPW was present during all site assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST. No product lines(piping) were found during the excavation of the UST. The UST was purged to remove vapors prior to cutting. A manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Lionetti Oil Recovery Co. Inc. transported approximately 50 gallons of liquid from the UST to the Lionetti Oil Recovery Co. Inc. facility, a NJDEP-approved petroleum recycling and disposal company located in Elizabeth, New Jersey. Refer to Appendix C for the waste manifest.

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. Numerous holes were noted in the UST. Soils at the location of the holes were dark in color and appeared to be contaminated. Approximately 30 cubic yards of potentially contaminated soil were removed from the excavated area and stored at the Fort Monmouth petroleum contaminated soil staging area. Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 281.00 mg/kg. Groundwater was encountered at 8.5 feet below ground surface (bgs) and no sheen was observed on groundwater.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported in compliance with all applicable regulations and laws to Metal Recyclers. Please refer to Appendix D for the UST Disposal Certificate.

The UST was labeled prior to transport with the following information:

- Site of origin
- Contact person
- NJDEP UST Facility ID number
- Former contents
- Destination site

- Date

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, approximately 20 cubic yards of potentially contaminated soil were removed from the UST excavation. All potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to the soil staging area. Soils that did not exhibit signs of contamination were used as backfill following the removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities:

- Project Manager: Dinker Desai
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (732) 532-1475
  NJDEP Certification No.: 10173

- Analytical Laboratory: U.S.Army Fort Monmouth Environmental laboratory
  Contact Person: Daniel K. Wright
  Phone Number: (908) 532-4359
  NJDEP Company Certification No.: 13461

- Hazardous Waste Hauler: LORCO
  Contact Person: Dan Mackay
  Phone Number: (908) 820-8800
  NJDEP Company Certification No.: 23036

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Approximately 20 cubic yards of potentially petroleum contaminated soil were removed from the excavated area and transported to the Fort Monmouth petroleum contaminated soil holding area. Soils were removed from the excavation until no evidence of contamination remained. Groundwater was encountered at 8.5 feet below ground surface and no sheen was observed on groundwater.

2.3 SOIL SAMPLING

On August 23, 2000, following the removal of the UST and approximately 5 cubic yards of potentially contaminated soil, four (4) post-excavation soil samples, A, B, C, and D (DUP C), were collected from a total of three (3) locations on the floor of the UST excavation. Excavation floor sample samples A, B, C, and D (DUP C) were collected at a depth of 8-

8.5 feet bgs. Each of these 4 samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids.

On October 4, 2000, seven (7) Geoprobe soil samples (samples 1 through 7) were collected to determine the extent of the contamination along the perimeter of the excavation, and ranged in depth from 78 to 97 inches. These 7 samples were analyzed for TPHC and total solids.

On February 21, 2001, following the removal of approximately 20 cubic yards of potentially contaminated soil from the excavated area, post-excavation soil samples PX1, PX2, PX3, PX4, PX5, and PX6 (DUP PX5) were collected from the excavation floor at a depth of 7.5 to 8 feet bgs. These 6 samples were analyzed for TPHC and total solids.

On February 27, 2001, following the removal of approximately 5 cubic yards of potentially contaminated soil from the excavated area, post-excavation soil samples PX7 and PX8 (DUP PX7) were collected from the west sidewall at a depth of 7 to 7.5 feet bgsSamples PX7 and PX8 were analyzed for TPHC and total solids.

U.S. Army personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using NJDEP *Field Sampling Procedures Manual* (1992) standard sampling procedures. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

2.4 GROUNDWATER SAMPLING

On October 6, 2000, January 18, 2001, and April 21, 2001, Building 1104 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs+15), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs+15). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation.*

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and approximately 30 cubic yards of potentially contaminated soil, post-excavation soil samples were collected between August 23, 2000, and February 27, 2001 from a total of sixteen (16) locations. All samples were analyzed for TPHC and total solids. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling locations are shown on Figure 3. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected between August 23, 2000, and February 27, 2001, from the UST excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria. Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 281.00 mg/kg.

3.2 GROUNDWATER SAMPLING RESULTS

October 6, 2000, January 18, 2001, and April 21, 2001, Building 1104 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC) with the exception of benzene, xylenes, and n-nitrosodiphenylamine. Benzene was detected at a concentration of 12.79 ug/L, 129.15 ug/L, and 4.43 ug/L, above the GWQC of 1.00 ug/L. Xylenes were detected at a concentration of 52.85 ug/L, above the GWQC of 40.00 ug/L. N-nitrosodiphenylamine was detected at a concentration of 34.41 ug/L and 139.35 ug/L, above the GWQC of 20.00 ug/L.

A summary of the analytical results and comparison to the NJDEP groundwater cleanup criteria is provided in Table 3 and the groundwater sampling locations are shown on Figure 4. The analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 1104 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.

Based on the analytical results of the groundwater sample collected on October 6, 2000, January 18, 2001, and April 21, 2001, groundwater quality at Building 1104 exceeds the New Jersey Groundwater Quality Standard for benzene, xylenes, and n-nitrosodiphenylamine. The installation of a monitoring well and the collection of samples on a quarterly basis is recommended. The analysis will determine if the levels of benzene, xylenes, and n-nitrosodiphenylamine detected previously are declining. The need for any additional actions to address groundwater quality should be evaluated following receipt of the additional groundwater data.

No further action for soil is proposed in regard to the closure and site assessment of UST No. 0081533-164 at Building 1104.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
**A	8/23/00	8/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
**B	8/23/00	8/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
**C	8/23/00	8/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
**D (DUP C)	8/23/00	8/24/00	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:
* TPHC Total Petroleum Hydrocarbons
** Sample location was further remediated and resampled

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
1	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
2	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
3	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
4	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
5	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
6	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
7	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025
DUP 6	10/4/00	10/5/00	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:
* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
PX1 North Wall 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
PX2 East Wall 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
**PX3 West Wall 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
PX4 South Wall 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
PX5 Bottom 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
PX6 Duplicate 7.5-8'	2/21/01	2/22/01	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:
* TPHC Total Petroleum Hydrocarbons
** Sample location was further remediated and resampled

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
PX7/West Wall 7-7.5'	2/27/01	2/28/01	Soil	Post-Excavation	TPHC	OQA-QAM-025
PX8/Duplicate 7-7.5'	2/27/01	2/28/01	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:
* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Sampling Method**
5766.11	10/4/00	10/5/00	Aqueous	Groundwater	VOCs+15, SVOCs+15	PPNDP
271	1/18/01	1/19/01	Aqueous	Groundwater	VOCs+15, SVOCs+15	PPNDP
16070.01	4/21/01	4/24/01	Aqueous	Groundwater	VOCs+15, SVOCs+15	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

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
***A/8-8.5'	5655.01	8/23/00	8/24/00	Total Solid	--	--	81.43 %	--	--
				TPHC	187	yes	15,558.62	10,000	Yes
***B/8-8.5'	5655.02	8/23/00	8/24/00	Total Solid	--	--	81.75 %	--	--
				TPHC	189	Yes	9,755.05	10,000	No
***C/8-8.5'	5655.03	8/23/00	8/24/00	Total Solid	--	--	80.15 %	--	--
				TPHC	189	Yes	1,669.23	10,000	No
***D/8-8.5'	5655.04	8/23/00	8/24/00	Total Solid	--	--	82.16 %	--	--
				TPHC	187	yes	1,125.29	10,000	No

Note:
* Total Solid results are expressed as a percentage.
** NJDEP Residential Direct Contact soil cleanup criteria for total organics
*** Sample location was further remediated and resampled
ND Not detected above stated method detection limit
TPHC Total Petroleum Hydrocarbons

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
1/86"	5766.03	10/4/00	10/5/00	Total Solid	--	--	84.60 %	--	--
				TPHC	180	yes	ND	10,000	No
2/92"	5766.04	10/4/00	10/5/00	Total Solid	--	--	84.75 %	--	--
				TPHC	177	Yes	ND	10,000	No
3/78"	5766.05	10/4/00	10/5/00	Total Solid	--	--	83.13 %	--	--
				TPHC	186	Yes	ND	10,000	No
4/80"	5766.06	10/4/00	10/5/00	Total Solid	--	--	82.35 %	--	--
				TPHC	187	yes	ND	10,000	No
5/78"	5766.07	10/4/00	10/5/00	Total Solid	--	--	84.28 %	--	--
				TPHC	180	yes	ND	10,000	No
6/80"	5766.08	10/4/00	10/5/00	Total Solid	--	--	81.63 %	--	--
				TPHC	190	Yes	513.05	10,000	No
7/86"	5766.09	10/4/00	10/5/00	Total Solid	--	--	84.20 %	--	--
				TPHC	184	Yes	ND	10,000	No
DUP6/92"	5766.10	10/4/00	10/5/00	Total Solid	--	--	82.05 %	--	--
				TPHC	186	yes	499.60	10,000	No

Note:
* Total Solid results are expressed as a percentage.
** NJDEP Residential Direct Contact soil cleanup criteria for total organics
*** Sample further remediated and resampled
ND Not detected above stated method detection limit
TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
PX1 7.5-8'	977	02/21/01	02/22/01	Total Solid	--	--	81.97 %	--	--
				TPHC	186	yes	281	10,000	No
PX2 7.5-8'	982	02/21/01	02/22/01	Total Solid	--	--	77.43 %	--	--
				TPHC	192	Yes	ND	10,000	No
PX3 7.5-8'	987	02/21/01	02/22/01	Total Solid	--	--	80.44 %	--	--
				TPHC	194	Yes	4209.87	10,000	No
PX4 7.5-8'	988	02/21/01	02/22/01	Total Solid	--	--	80.45 %	--	--
				TPHC	189	yes	199.86	10,000	No
PX5 7.5-8'	989	02/21/01	02/22/01	Total Solid	--	--	79.18 %	--	--
				TPHC	194	yes	ND	10,000	No
PX6 7.5-8'	1036	02/21/01	02/22/01	Total Solid	--	--	80.14 %	--	--
				TPHC	195	Yes	ND	10,000	No

Note:

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

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 1104, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
PX7/7-7.5'	1071	02/27/01	02/28/01	Total Solid	--	--	83.24	--	--
				TPHC	186	yes	ND	10,000	No
PX8/7-7.5'	1072	02/27/01	02/28/01	Total Solid	--	--	82.97	--	--
				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
ND Not detected above stated method detection limit
TPHC Total Petroleum Hydrocarbons

TABLE 3

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING NO. 1104
FORT MONMOUTH, NEW JERSEY

VOCs

Groundwater Sample	Sample Date	Methyl-tert-butyl ether	Acetone	2-butanone	Benzene	Toulene	Ethylbenzene	Xylenes (total)
UNITS:		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NJDEP CRITERIA		70	700	300	1	1000	700	40
1104	10/04/00	4.28	11.22	3.87	12.79	1.61	27.71	52.85
1104	01/18/01	7.86	ND	ND	129.15 D	2.33	38.75	33.59
1104	04/21/01	4.16	6.48	ND	4.43	ND	10.93	16.33

Note:

Gray shading indicates exceedance of New Jersey Ground Water Quality Criteria (GWQC) defined in NJAC 7:9-6.

Abbreviations:

ND:	Not Detected.
ug/L:	Micrograms per liter.
D:	Value from dilution.
VOCs:	Volatile Organic Compounds

TABLE 3

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING NO. 1104
FORT MONMOUTH, NEW JERSEY

SVOCs

Groundwater Sample	Sample Date	Nitrobenzene	Naphthalene	2-methylnaphthale	Acenaphthene	Dibenzofuran	Fluorene	n-nitrosodiphenylamine	Phenanthrene	Fluoranthene	Pyrene	Butylbenzylphthalate	Chrysene	bis(2-ethylhexyl)phthalate
UNITS		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NJDEP CRITERIA		10	NLE	NLE	400	NLE	300	20	NLE	300	200	100	20	30
1104	10/04/00	ND	38.25	D	26.53	23.67	56.36	34.71	98.19	2.78	11.31	3.91	ND	3.85
1104	01/18/01	2.62	41.04	D	31.34	ND	49.02	ND	113.19	ND	12.18	ND	ND	ND
1104	04/21/01	ND	ND	1455.26	47.97	ND	139.20	139.35	291.97	7.08	28.80	ND	2.75	ND

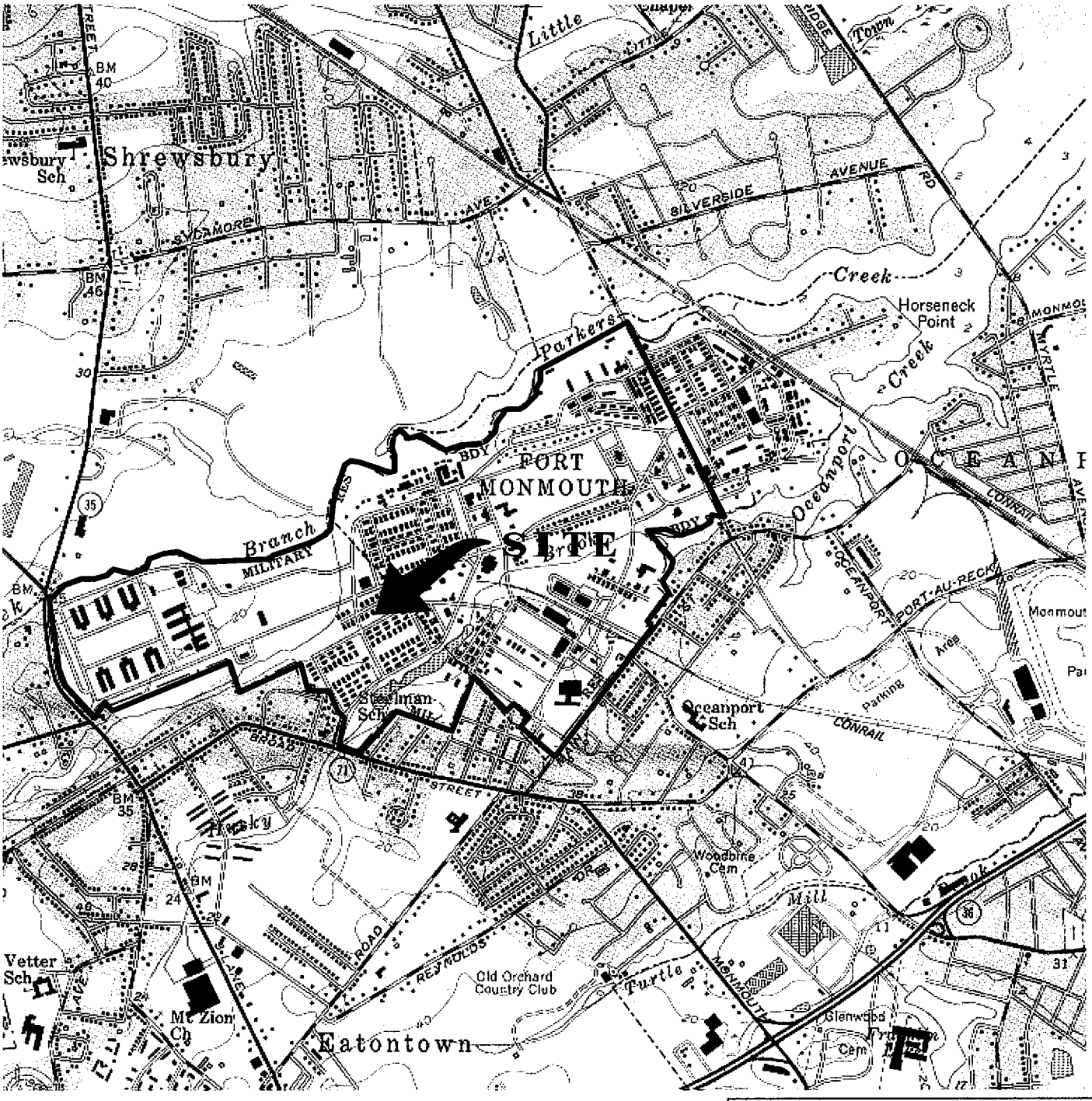
Note:

Gray shading indicates exceedance of New Jersey Ground Water Quality Criteria (GWQC) defined in NJAC 7:9-6.

Abbreviations:

ND: Not Detected.
ug/L: Micrograms per liter.
D: Value from dilution.
NLE: No limit Established.
SVOCs: Semi-Volatile Organic Compounds

FIGURES



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 1

LOCATION MAP
Building 1104
Main-Post West
Fort Monmouth Army Base
Monmouth County, NJ

VERSAR
Engineers, Managers, Scientists, & Planners
Bristol, PA

Scale: 1" = 2000'

Date: August 2000

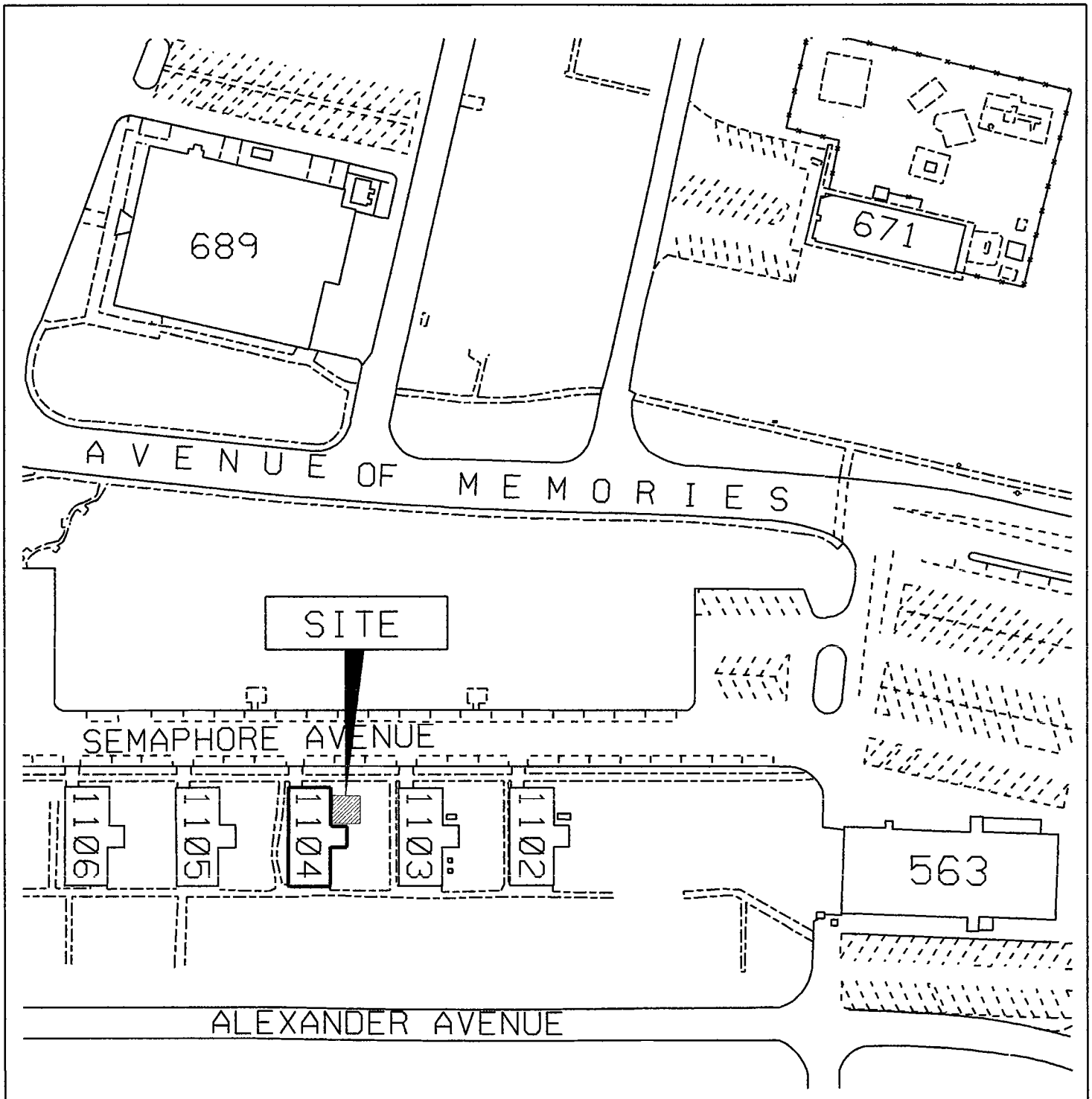


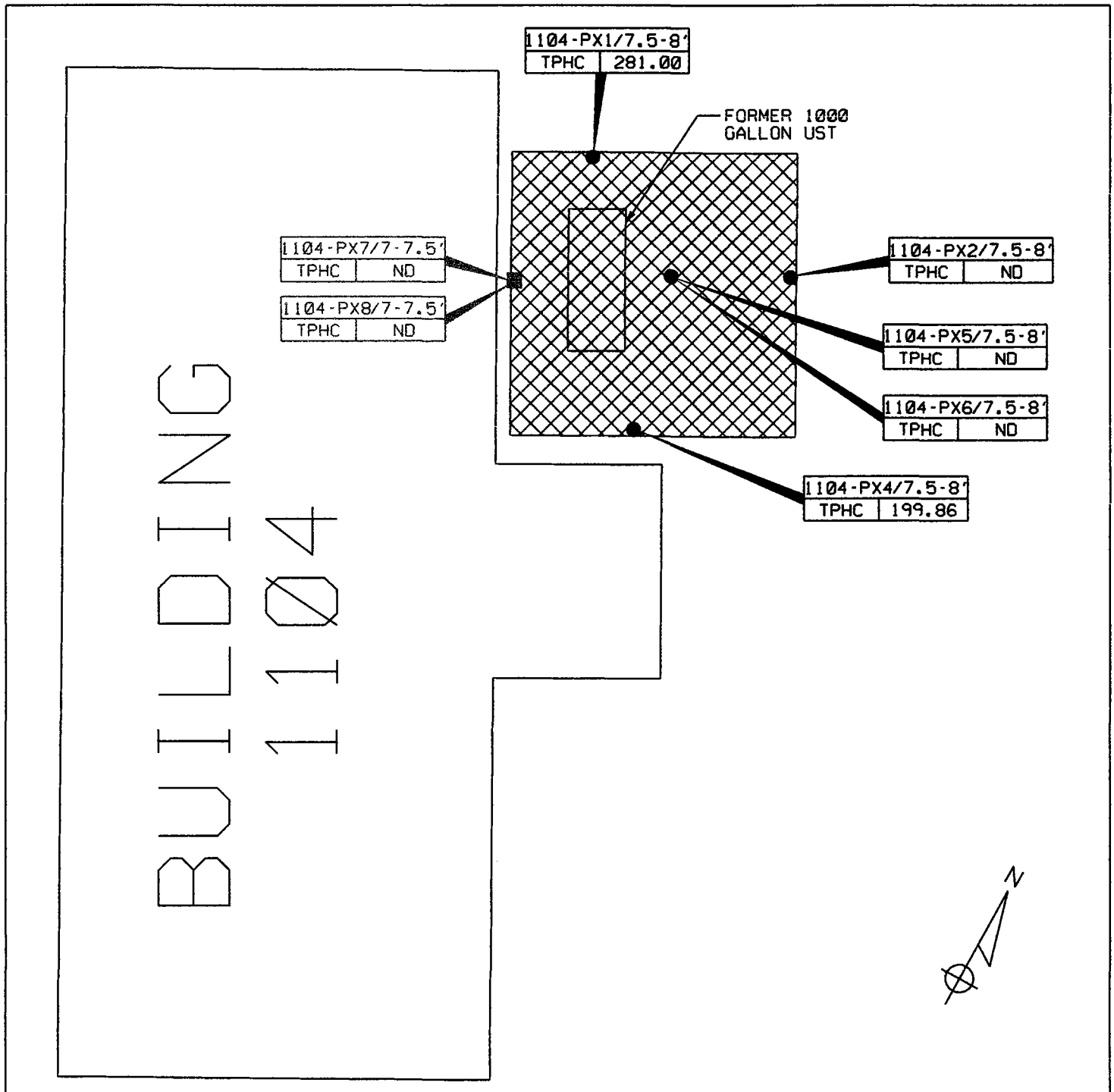
FIGURE 2
SITE MAP
BUILDING 1104
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 100'

DATE: AUGUST 2000

1104 FIG2



LEGEND

- SOIL SAMPLE LOCATION (FEBRUARY 21, 2001)
- SOIL SAMPLE LOCATION (FEBRUARY 27, 2001)
- LIMIT OF EXCAVATION (FEBRUARY 27, 2001)
- 1104-PX1/7.5-8' SAMPLE ID WITH DEPTH OF SAMPLE (FEET BGS)

NOTES:

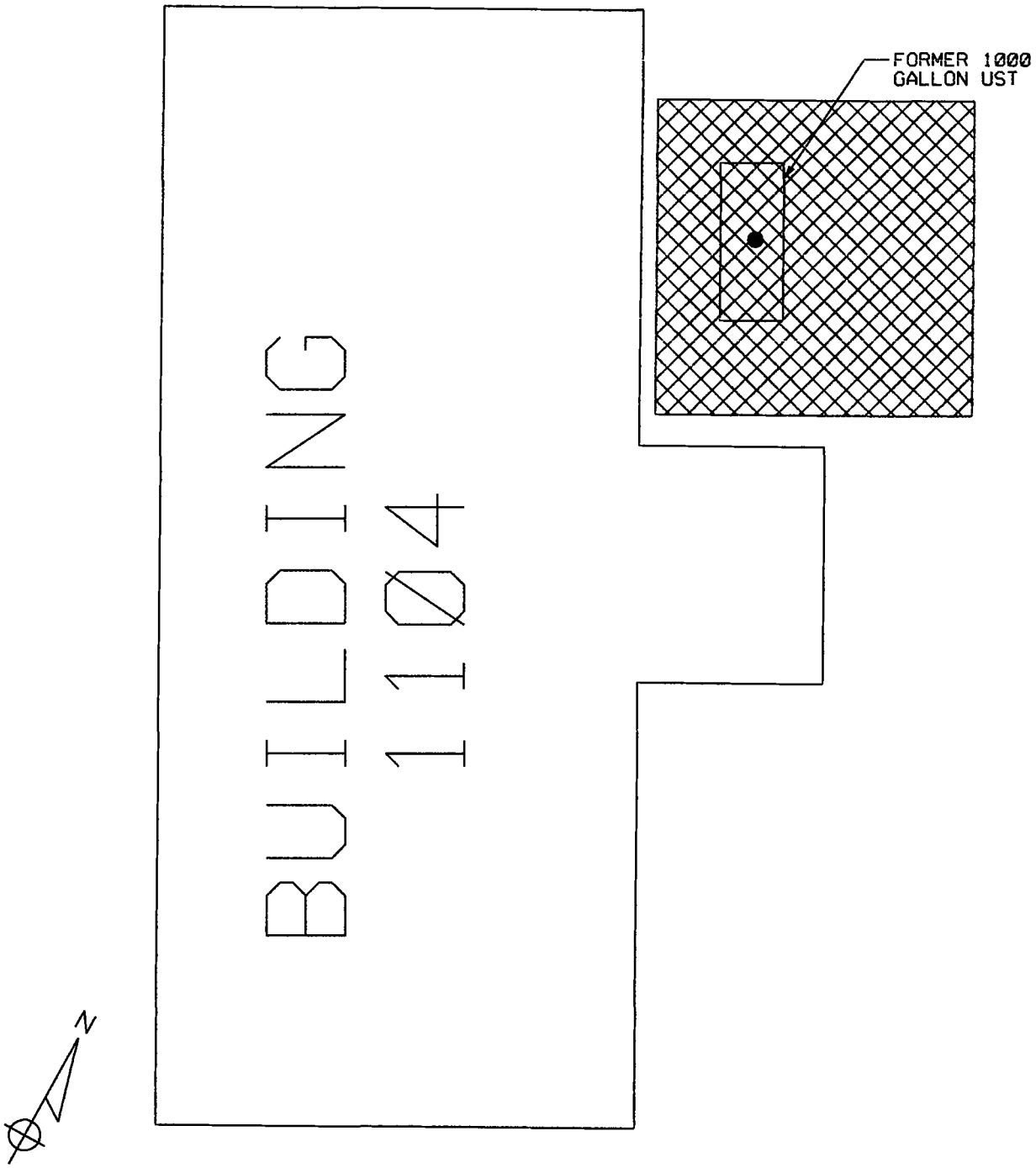
1. ALL RESULTS IN MG/KG.
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS - BELOW GROUND SURFACE

FIGURE 3
SOIL SAMPLING LOCATION MAP
BUILDING 1104
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1" = 10' | DATE: AUGUST 2000

1104 FIG4



LEGEND

● GROUNDWATER SAMPLE LOCATION

LIMIT OF EXCAVATION
(JULY 7, 1994)

NOTES:
1. SEE TABLE 3 FOR GROUNDWATER RESULTS

FIGURE 4
GROUNDWATER SAMPLING MAP
BUILDING 1104
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS
BRISTOL, PA.

SCALE: 1"=10' | DATE: AUGUST 2000

1104 FIG4

APPENDIX A

NJDEP-STANDARD REPORTING FORM

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
Underground Storage Tanks
Registration and Billing Unit
PO Box 028, Trenton, N.J. 08625-0028
1-609-633-0719

FOR STATE USE ON
Check In ☐ Yes ☐ No
STATUS Active ☐ Inactive ☐ COMC ☐☐

UNDERGROUND STORAGE TANK FACILITY CERTIFICATION QUESTIONNAIRE

FACILITY UST # 0081533 Bldg 1104

Completion of this Registration Questionnaire will satisfy the registration requirements of the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A-21, and the Registration and Billing Regulations N.J.A.C. 7:14B-2.

Check appropriate box

A. ☐ This is a registration of a proposed or newly installed underground storage tank. (This form must be filed at least 30 days prior to operatio
B. ☐ This is a registration of an existing underground storage tank not presently registered.
C. ☒ This is a correction or amendment to an existing facility registration.
D. ☐ There have been no changes to the facility registration since last submittal. (Go to certification page for signature)

If "C" is checked above, please check the appropriate type of change(s) below

☐ Facility Name and/or Address Change
☐ Owner Name and/or Address Change
☐ Facility Operator and/or Address Change
☐ Owner Contact Person Change
☐ Type of Product(s) Stored
☐ Substantial Modification(s) (see 12E)
☐ Tank(s) and/or Piping Changes
☒ Closure (Complete Section B Questions 1,4,5,11,12)
☐ Financial Responsibility Change
☐ Sale or Transfer (Complete Section A, Questions 4,5 & Section B, 12D)
☐ Other *(please specify)*

SECTION A - GENERAL FACILITY INFORMATION

1. Facility Name: Main Pipe Mesh
2. Facility Location: Fort Monmouth
NUMBER AND STREET
CITY OR MUNICIPALITY
COUNTY | STATE: NJ | ZIP CODE | BLOCK | LOT

3. Facility Operator
PERSON OR TITLE
Contact Tele. No. (Area Code) (Extension)

Operator Address (if different than #2)
NUMBER AND STREET
CITY OR MUNICIPALITY
STATE ZIP CODE

4. Tank Owner
5. Tank Owner Address
NUMBER AND STREET
CITY OR MUNICIPALITY
STATE ZIP CODE

6. Contact Person (Tank Owner): Dinkerl Desai
Contact Tele. No. 7325321475 (Area Code) (Extension)

7. EPA ID#

8. Total number of regulated underground storage tanks at facility ☐☐☐☐ (Complete Section B for each tank)

9. Total regulated underground storage tank capacity at facility (gallons) [ ]

10. Facility Type: A [ ] State; B [ ] Commerical/ Industrial; C [ ] County/Municipal; D [X] Federal; E [ ] Charitable / Public School; F [ ] Residential; G [ ] Other; H [ ] Farm (as defined in N.J.S.A. 54:4-23.1 et se

NOTE: The facility site plan must be submitted when registering any underground storage tank pursuant to N.J.A.C. 7:14B 2.

SECTION B - SPECIFIC TANK INFORMATION

ALL underground tanks, including those taken out of operation (UNLESS THE TANK WAS REMOVED FROM THE GROUND PRIOR TO 9/3/86) registered. Report all tank/piping status changes. ***DO NOT MARK SHADED AREAS***

	TANK NO. 1		TANK NO. 6		TANK NO. 4		TANK NO.		TANK	
1. Tank Identification Number										
2. CAS Number (hazardous substances only)										
3. Date Tank Installed (Month/Day/Year)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day	
4. Tank Size (gallons)	1000									
5. Tank Contents (Mark one "X" for each tank)										
A. Leaded gasoline										
B. Unleaded gasoline										
C. Alcohol enriched gasoline										
D. Light diesel fuel (No. 1-D)										
E. Medium diesel fuel (No. 2-D)										
F. Waste oil										
G. Kerosene (No. 1)										
H. Home heating oil (No. 2)	X									
J. Heating oil (No. 4)										
K. Heavy heating oil (No. 6)										
L. Aviation fuel										
M. Motor oil										
N. Lubricating oil										
P. Other hazardous substances (please specify)										
Q. Hazardous waste (specify ID number)										
R. Mixtures (please specify)										
S. Emergency spill tank (specify substance) (see definition page 4)										
T. Other petroleum products (please specify)										
U. Other (please specify)										
6. Tank & Piping Construction (Mark one each for tank. For piping, mark material of construction & either "Pressurized" (F) or "Suction" (G)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	
A. Bare steel										
B. Cathodically protected metal										
1. Sacrificial anode										
2. Impressed current										
C. Fiberglass-coated steel		■		■		■		■		■
D. Fiberglass-reinforced plastic										
E. Internally lined (TANK ONLY)		■		■		■		■		■
F. Pressurized piping (PIPING ONLY)	■		■		■		■		■	
G. Suction piping (PIPING ONLY)										
H. Other (please specify) (include Brand Name)										
7. Tank & Piping Structure (Mark one each for TANK & PIPING)										
A. Single wall										
B. Double wall										
C. Other (please specify)										
8. Type of Monitoring/Detection (Mark all that apply for TANK & PIPING)										
A. Statistical inventory reconciliation										
B. Manual tank gauging (TANK ONLY)		■		■		■		■		■
C. Inventory control (TANK ONLY)		■		■		■		■		■
D. Interstitial										
E. Tightness test										
F. Ground water observation wells										
G. Vapor observation wells										
H. In-tank (auto. monitoring gauge)(TANK ONLY)		■		■		■		■		■
J. "Safe" suction piping (PIPING ONLY) see definition page 4	■		■		■		■		■	
K. In-line electronic pressure monitor (PIPING ONLY) see definition page 4	■		■		■		■		■	
L. Automatic line leak detector (PIPING ONLY)	■		■		■		■		■	
M. None (TANK & PIPING)										
N. Other (please specify)										

Tank Identification Number	TANK NO. 1164 Tank	TANK NO. Tank	TANK NO. Tank	TANK NO. Tank	TANK NO. Tank
9. Overfill protection (Mark one X for each tank)					
A. Yes					
B. No					
10. Spill containment around fill pipe (Mark one X for each tank)					
A. Yes					
B. No					
11. Tank status (Mark one X for each tank system)					
A. In-use					
B. Empty less than 12 mos. (complete 12B)					
C. Empty 12 mos. or more (complete 12B)					
D. Sump (see definition page 4)					
E. Emergency back-up generator tank					
F. Abandoned in Place (Complete 12A)					
G. Removed (Complete 12C)	X				
H. Other (Please specify)					

12. Closure Information - Tank ID No.	TANK NO. 1164 Mo. / Day / Year	TANK NO. Mo. / Day / Year	TANK NO. Mo. / Day / Year	TANK NO. Mo. / Day / Year	TANK NO. Mo. / Day / Year
A. Date abandoned in place					
B. Date taken out of service					
C. Date removed	08 / 23 / 2010				
D. Date of sale or transfer					
E. Closure/Submod # (if applicable)					
F. ISRA # (if applicable)					
13. Is the tank within wellhead protection area as defined on pg. 4 (Mark one X for each tank)					
A. Yes					
B. No					

SECTION C - FINANCIAL RESPONSIBILITY

Does this facility have a Financial Responsibility Assurance Mechanism? ☐ YES ☐ NO
Please list the appropriate financial information below:

______________________ ______________________
Type Carrier/Issuing Agency

____/____/____ ____/____/____ ______________________ $______________
Effective Date Expiration Date Policy Number Amount

SECTION D - OPERATION AND MAINTENANCE/RECORD KEEPING / COMPLIANCE

Please answer all the questions in this section on a facility basis. Any one tank not in compliance requires a "NO" answer for the entire facility.

1. Does this facility have cathodic protection systems for all steel tanks and piping? ☐ YES ☐
   If "Yes", then:
   a. The systems must be tested every three years pursuant to N.J.A.C. 7:14B-5.2(a)
   b. For the sacrificial anode systems, the systems must be tested within 180 days after installation. (N.J.A.C. 7:14B-5.2(a)
   c. For impressed current systems, the systems must be operational (turned on & providing continuous protection) pursuant to N.J.A.C. 7:14B-5.2(a)
   d. For impressed current systems, the systems must be tested properly every 60 days (N.J.A.C. 7:14B-5.2(a)
   e. If UST is internally lined, the lining must be inspected within 10 years after installation and every 5 years thereafter (N.J.A.C. 7:14B-4.2(a)
2. Are the performance claims and documentation of monitoring systems maintained by the owner or operator pursuant to N.J.A.C. 7:14B-6.7? ☐ YES ☐
3. Are the proper monitoring, testing, sampling, repair and inventory records stored and accessible pursuant to N.J.A.C. 7:14B-5 and 6? ☐ YES ☐
4. Is the proper Release Response Plan kept on-site pursuant to N.J.A.C. 7:14B-5.5? ☐ YES ☐
5. Are the tanks checked monthly for the presence of water pursuant to N.J.A.C. 7:14B-6? ☐ YES ☐
6. Have all Fill Ports been permanently marked per API #1637 and API #1542 pursuant to N.J.A.C. 7:14B-5.8? ☐ YES ☐
7. Are the tank systems monitored for releases monthly or on an alternate required frequency pursuant to N.J.A.C. 7:14B-6? ☐ YES ☐
8. Are the release detection monitoring systems operating in accordance with the manufacturers requirements? (N.J.A.C. 7:14B-6) ☐ YES ☐

NOTICE: *ALL DEADLINES FOR TANK SYSTEM UPGRADE (CORROSION PROTECTION, SPILL AND OVERFILL PROTECTION) AND LEAK DETECTION HAVE PASSED.

IMPORTANT INFORMATION

FEE: Please make checks payable to: "Treasurer, State of New Jersey". Registration and Billing Schedule can be found in N.J.A.C. 7:14B-3.

PENALTY: Failure by owner or operator of a regulated underground storage tank to comply with any requirement of the State UST Act or regulations may result in the penalties set forth in N.J.S.A. 58:10A-12.

EMERGENCY: If a discharge or spill occurs, the NJDEP Hotline at (877)- 927-6337 must be called **IMMEDIATELY** - 24 hours a day.

EXEMPTION: Residential heating oil underground storage tanks are exempt from all underground storage tank requirements.

CERTIFICATION

Must be signed as follows:
- For a corporation, by a person authorized by resolution of the Board of Directors to sign the document.
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
- For persons other than indicated above, by the person with legal responsibility for the site.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and a[l] attached documents, and that based on my inquiry of those individuals responsible for obtaining the information. I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting fals[e] inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I d[o] not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

James Ott — *(Typed / Printed Name)*

James Ott [signature] — *(Signature)*

Director, Public Works — *(Title)*

1/16/01 — *(Date)*

DEFINITIONS

Section B5 S. "Emergency Spill Tank" - Any underground storage tank used to collect an accumulation of hazardous substances as a re[sult] of a leak or spill.

Section B8 J. "Safe" Suction Piping (sometimes called "European" suction piping) - Suction piping which has enough slope so that th[e] product in the pipe can drain back into the tank when the suction is released, and which has only one check valve, located directly beneath the pump in the dispensing unit.

Section B8 K. In-Line Electronic Pressure Monitor - (Used with pressurized piping only) A monitor which checks for loss of pressure piping when no product is dispensed. This method may be used once every 30 days or every time the dispenser turns off.

Section B8 L. Automatic Line Leak Detectors - (Required with pressurized piping - Must be able to detect a 3 gph leak within 1 hour o[f] its occurence)

1. Flow restrictors and flow shut offs which monitor pressure within piping and when a suspected leak is detected, either restricts th[e] flow of product through the piping well below the 3 gph leak rate it detects, or completely cuts off product flow and shuts dow[n] the pump.
2. Continuous alarm systems constantly monitor piping conditions and trigger an audible or visual alarm if a leak is suspected.

TEMPORARY CLOSURE: Underground storage tank systems which are out of service shall comply with the provisions of N.J.A.C. 7:14B-9.1. The ow[ner] operator of an underground storage tank system which is out of service for a period greater than three months shall follow the guidelines in the current Am[erican] Petroleum Institute Bulletin #1604. The owner or operator of an underground storage tank system may request that the underground storage tank system r[emain] out of service for a period of more than 12 months without having to close the tank system by complying with the provisions of N.J.A.C. 7:14B-9.1 submitting a Site Investigation (SI) Report at least 30 days before expiration of the 12 month period. If a SI report was not filed for an UST that we[re] temporary closure to comply with the 12/22/98 upgrade deadline, the deadline for permanent closure is 12/22/99.

Section B11 D "Sump" - any underground storage tank used to collect or contain a hazardous substance for no more than 48 hours.

Section B13 Wellhead Protection Area -

1. The area within a 2,000 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing gasoline or non-petroleum hazardous substances located within that area.
2. The area within a 750 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing petroleum products other than gasoline located within that area.

PUBLICATIONS AVAILABLE (on line or call for Copies)

Straight Talk on Tanks (Release Detection Requirements)
Doing Inventory Control Right
Underground Storage Tank Owner's Self-Inspection Checklist
Don't Wait Until 1998 (Upgrade Requirements)
Manual Tank Gauging

WEBSITE ADDRESS: WWW.STATE.NJ.US/DEP/SRP/BUST

Telephone Number: (609) 292-8761

APPENDIX B

SITE ASSESSMENT SUMMARY

(12/97) **New Jersey Department of Environmental Protection**

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name : U.S. Army Fort Monmouth New Jersey

Facility Street Address : Directorate of Public Works Building 173

Municipality: Oceanport County : Monmouth

Block:_____ Lot(s):_____ Telephone Number : 732-532-6224

B. Owner (RP)'s Name:_____

Street Address:_____ City :_____

State: _____ Zip:_____ Telephone Number : _____

C. (Check as appropriate)

___ Site Investigation Report (SIR) $500 Fee

___ Remedial Investigation Report (RIR) $1000 Fee

_X_ NA – Federal Agreement

D. (Complete all that apply)

- Assigned Case Manager : Ian Curtis, Federal Case Manager
- UST Registration Number : 81533-164 (8 digits)
- Incident Report Number ___-___-___-_____-___ (10 or 12 digits)
  ___-___-___-_____-___
- Tank Closure Number : Federal Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E .....Yes No

Name: Dinker Desai Signature:_____ UST Cert. No.: 10173

Firm: U.S. Army, Fort Monmouth Firm's UST Cert. Number: 10173

Firm Address: Bldg. 173 City: Fort Monmouth

State: NJ Zip: 07703 Telephone Number : (732) 532-1475

(NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

F. Certification by the Responsible Party(ies) of the Facility:

The following certification shall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)]as follows:

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official.

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

Name (Print or Type): James Ott Title: Directorate of Public Works

Signature: See Signed Subsurface log.

Company Name: U.S. Army Fort Monmouth Date: 5/18/02

APPENDIX C

WASTE MANIFEST

Lorco Petroleum Services
450 South Front St.
Elizabeth, NJ 07202
(908) 820-8800
(800) 734-0910
FAX: (908) 820-8412

LORCO PETROLEUM SERVICES

www.lorcopetroleum.com

STANDARD COLLECTION ORDER FORM

298203

SALES ORDER # 95389

GENERATOR/LOCATION

NAME: U.S. ARMY COMMUNICATIONS ELECTRONICS COMMAND
INFORMATION/ATTENTION LINE: ACCOUNT APPROVAL CODE:
DELIVERY ADDRESS: MAIN POST BLDG 1104
CITY: C/O J. FALLON BLDG 173 ATTN: SELFM-PW-EV
STATE: ZIP:
PHONE NUMBER: FORT MONMOUTH NJ 07703
PURCHASE ORDER NUMBER:
TIME IN: 732-532-0223
TIME OUT:
NJ3210020597

BILL TO (IF DIFFERENT FROM LOCATION)

NAME: TVS
INFORMATION/ATTENTION LINE: ACCOUNT APPROVAL CODE:
DELIVERY ADDRESS:
CITY: STATE: ZIP:
PHONE NUMBER: PURCHASE ORDER NUMBER: R00-00175
MANIFEST NUMBER: NHZ38042

SHIPPING INFORMATION

This is to certify that the below named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL		50				
40300	ANTI-FREEZE REMOVAL						
40501	OILY WATER DISPOSAL		750				
40502	SLUDGE DISPOSAL						
41001	GASOLINE/WATER						
41501	DRUM DISPOSAL						
41504	TANK ENTRY						
40600	OIL FILTER REMOVAL						
40800	PARTS WASHER SERVICE						
41511	NEW 55 GAL DRUM / 17H						
41503	QAQC ANALYTICAL TESTING						
42001	DEXSIL TEST KIT TAX						
41509	TRANSPORTATION						
				TOTAL			

CUSTOMER SERVICED EVERY 30 DAYS ☐

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C.F.R. 261, and does not accumulate more than 1,000 kilograms of such waste during the month.

GENERATOR'S SIGNATURE

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. $ ____
INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1½% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. INITIAL ____

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is ☐ used oil ☐ used antifreeze ☒ oily water ☐ Other ____ (Description)

In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

BRIAN FINCH — Print Name — Title

Signature — 8.23.00 — Date

GENERATOR/CUSTOMER

NON CONDITIONALLY EXEMPT LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT TEST RESULTS

____ PPM

CUSTOMER

In accordance with NJAC7:26-6.7b + 40CFR PART 279 LORCO has notified the US EPA of its location and used oil management activities.

Dan MacKay — Print Name

Signature — 8.23.00 — Date

LORCO REPRESENTATIVE

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	NHZ 38042
NJ3210020597	33042		

GENERATOR

3. Generator's Name and Mailing Address
US ARMY COMMUNICATIONS ELECTRONICS COMMAND ATTN AMSEL PW-SV
BG J FALLON BLDG 173 FORT MONMOUTH NJ 07703

4. Generator's Phone (732) 532-4223

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
LORCO PETROLEUM SERVICES	N J R 0 0 0 0 2 3 0 3 6	908-820-8800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address LORCO PETROLEUM SERVICES 450 SOUTH FRONT STREET ELIZABETH NJ 07202	10. US EPA ID Number N J R 0 0 0 0 2 3 0 3 6	C. Facility's Phone 908-820-8800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. PETROLEUM OIL (PETROLEUM OIL) COMBUSTIBLE LIQUID NA 1270 PG III	0 0 1	T T	1000	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above
T,L PETROLEUM OIL 5 % WATER 95 %	T04-FILTRATION

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY RESPONSE # 908-820-8800
DECAL# 33942 ERG# 128 DEXSIL TEST KIT RESULTS _____ PPM
MANIFEST USED FOR TRACKING PRUPOSES ONLY

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
B Brian Finch		08	23	00

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Dan MacKay		08	23	00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR'S COPY

APPENDIX D

UST DISPOSAL CERTIFICATE

RECYCLING TECHNOLOGY CENTER, INC.

Metal Recyclers
3230 Shafto Rd.
Tinton Falls, NJ
(732) 922-9292

NO. _____

DATE. 1/9

Customer's Name TVS

Address (1) 1000 Gallon (3) 550 Gallon (3) 275 Gallon tank
BLDG. 1104

	Weight	Price
Cast Iron		
Steel	3660	49.00
Lt. Iron		
Copper #1		
Copper #2		

RAID
JAN - 9 2001

33300 LB

29640 LB

3660

	Weight	Price
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Battery		

TOTAL AMOUNT: 49.00

Weigher _____ Customer _____

APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO # 00-0004

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	5766.01	Methanol	04-Oct-00	10/04/00
Field Blank	5766.02	Aqueous	04-Oct-00 09:20	10/04/00
1104-1 86"	5766.03	Soil	04-Oct-00 10:50	10/04/00
1104-2 92"	5766.04	Soil	04-Oct-00 11:20	10/04/00
1104-3 78"	5766.05	Soil	04-Oct-00 11:50	10/04/00
1104-4 80"	5766.06	Soil	04-Oct-00 13:15	10/04/00
1104-5 78"	5766.07	Soil	04-Oct-00 13:50	10/04/00
1104-6 80"	5766.08	Soil	04-Oct-00 14:20	10/04/00
1104-7 86"	5766.09	Soil	04-Oct-00 15:05	10/04/00
Field Duplicate	5766.10	Soil	04-Oct-00	10/04/00
1104-GW 120-12'	5766.11	Aqueous	04-Oct-00 15:30	10/04/00

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15, TPHC, % SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-24-00
Daniel Wright/Date
Laboratory Director

CHAIN OF CUSTODY

000001

Fort Monmouth Environmental Testing Laboratory

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

Chain of Custody Record

Customer: B. FINCH / D. DESAI | **Project No:** 00-0004
Phone #: X21475 | **Location:** BLDG. 1104 U.S.T.
( )DERA (√)OMA ( )Other:_____
Samplers Name / Company: MARK LAURA - TVS - PWS 07

Lab Sample I.D.		Sample Location	Date	Time	Sample Type	# bottles	VOA+15	BN+15	TPHC	%SOLIDS			PID ppm	FID ppm	Remarks / Preservation Method
5766	1	TRIP BLANK	10-4-00	—	METH.	1	X						—	—	VOO2095 <4°C
	2	FIELD BLANK	"	0920	AQ.	3	X	X					—	—	HCL, <4°C
	3	1104-1 86"	"	1050	SOIL	2	X		X	X			61	30	VOO2096 " , "
	4	1104-2 92"	"	1120	"	2	X		X	X			115	50.27	VOO2097 " , "
	5	1104-3 78"	"	1150	"	2	X		X	X			5.16	24.17	VOO2098 " , "
	6	1104-4 80"	"	@1315	"	2	X		X	X			20.07	20.03	VOO2099 " , "
	7	1104-5 78"	"	1350	"	2	X		X	X			6.07	60.27	VOO2100 " , "
1	8	1104-6 80"	"	1420	"	2	X		X	X			18.06	20.00	VOO2101 " , "
	9	1104-7 86"	"	1505	"	2	X		X	X			8.93	7.65	VOO2102 " , "
	10	F.D.	"	—	"	2	X		X	X			—	—	VOO2108 " , "
	11	1104-GW 10-12'	"	1530	AQ.	3	X	X					—	—	" , "

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	10-4-00 1550	[signature]			
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, (X)Rush 1 Wk Days, ( )ASAP Verbal ____ Hrs.

Remarks: DENSE CLAYEY SILT LAYER FROM 93-96" — DRY — 0 PPM @ 96"

2000106

print legibly

Coc.xls7/24/00

METHODOLOGY SUMMARY

Methodology Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

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

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

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

Method Summary

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

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

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

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

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

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

CONFORMANCE NON-COMFORMANCE SUMMARY

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 (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — yes
   a. VOA Fraction_____
   b. B/N Fraction_____
   c. Acid Fraction NA

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

Indicate
Yes, No, N/A

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

    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: 10-24-06

TPHC CONFORMANCE/NON – CONFORMANCE SUMMARY REPORT

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

Additional comments: _____

Laboratory Manager: _____ Date: 10-24-00

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 5766 **Site:** Bldg. 1104

	Date	Hold Time
Date Sampled	10/04/00	NA
Receipt/Refrigeration	10/04/00	NA
Extractions		
1. Base Neutral	10/05/00	14 days
2. TPHC	10/05/00	14 days
Analyses		
1. Volatile Organics	10/10,11/00	14 days
2. Base Neutral	10/05/00	40 days
3. TPHC	10/06/00	40 days

Field Duplicate performed on 5766.08 (Field ID 1104-6 80").

VOLATILE ORGANICS

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

Data File	**VC004085.D**	Sample Name	**Vblk115**
Operator	**Skelton**	Field ID	**Vblk115**
Date Aquired	**10-Oct-00**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

10/19/00 9:53 AM

D:\HPCHEM\Custrpt\Volatile\624fy00.crt

000013

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Vblk115

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: Vblk115

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004085.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. Date Analyzed: 10/10/00

GC Column: Rtx502.2 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

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

Data File	**VC004103.D**	Sample Name	**5766.02**
Operator	**Skelton**	Field ID	**Field Blank**
Date Aquired	**11-Oct-00**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

10/19/00 9:53 AM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Field Blank

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 5766.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004103.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. _____ Date Analyzed: 10/11/00

GC Column: Rtx502.2 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

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

Data File	**VC004104.D**	Sample Name	**5766.11**
Operator	**Skelton**	Field ID	**1104-GW**
Date Aquired	**11-Oct-00**	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	11.93	809535	4.28 ug/L	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	8.90	494159	11.22 ug/L	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	
75-34-3	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	15.26	161671	3.87 ug/L	300	0.62 ug/L	
156594	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	18.62	4427815	12.79 ug/L	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	23.63	549652	1.61 ug/L	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	27.46	10673918	27.71 ug/L	700	0.65 ug/L	
1330-20-7	m+p-Xylenes	27.65	7112264	45.37 ug/L	nle	1.14 ug/L	
1330-20-7	o-Xylene	28.75	2116896	7.48 ug/L	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

10/19/00 9:53 AM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-GW

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 5766.11

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004104.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. Date Analyzed: 10/11/00

GC Column: Rtx502.2 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: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000103-65-1	Benzene, propyl-	30.61	32	JN
2. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.88	44	JN
3. 000526-73-8	Benzene, 1,2,3-trimethyl-	31.92	130	JN
4. 000526-73-8	Benzene, 1,2,3-trimethyl-	33.03	110	JN
5. 000496-11-7	Indane	33.76	88	JN
6.	unknown	34.17	33	J
7.	unknown	34.25	27	J
8.	unknown	34.44	51	J
9. 001560-06-1	Benzene, 2-butenyl-	34.73	31	JN
10.	unknown	34.94	58	J

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Vblk115

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk115

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004085.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Vblk115

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk115

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004085.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND		Q
1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Vblk115

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk115

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004085.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Vblk116

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk116

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004123.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Vblk116

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk116

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004123.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Vblk116

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: Vblk116

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004123.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.01

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004088.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
75718	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.01

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004088.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.01

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC004088.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 0 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-1

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.03

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004089.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.4 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2100	U
107131	Acrylonitrile	2100	U
75650	tert-Butyl alcohol	3900	U
1634044	Methyl-tert-Butyl ether	910	U
108203	Di-isopropyl ether	600	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	300	U
75-01-4	Vinyl Chloride	910	U
74-83-9	Bromomethane	600	U
75-00-3	Chloroethane	910	U
75-69-4	Trichlorofluoromethane	600	U
75-35-4	1,1-Dichloroethene	300	U
67-64-1	Acetone	600	U
75-15-0	Carbon Disulfide	300	U
75-09-2	Methylene Chloride	600	U
156-60-5	trans-1,2-Dichloroethene	600	U
75-35-3	1,1-Dichloroethane	300	U
108-05-4	Vinyl Acetate	910	U
78-93-3	2-Butanone	910	U
	cis-1,2-Dichloroethene	300	U
67-66-3	Chloroform	300	U
75-55-6	1,1,1-Trichloroethane	300	U
56-23-5	Carbon Tetrachloride	600	U
71-43-2	Benzene	300	U
107-06-2	1,2-Dichloroethane	600	U
79-01-6	Trichloroethene	300	U
78-87-5	1,2-Dichloropropane	300	U
75-27-4	Bromodichloromethane	300	U
110-75-8	2-Chloroethyl vinyl ether	600	U
10061-01-5	cis-1,3-Dichloropropene	300	U
108-10-1	4-Methyl-2-Pentanone	600	U
108-88-3	Toluene	300	U
10061-02-6	trans-1,3-Dichloropropene	600	U
79-00-5	1,1,2-Trichloroethane	600	U
127-18-4	Tetrachloroethene	300	U
591-78-6	2-Hexanone	600	U
126-48-1	Dibromochloromethane	600	U
108-90-7	Chlorobenzene	300	U
100-41-4	Ethylbenzene	600	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-1

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.03

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004089.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.4 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	910	U
1330-20-7	o-Xylene	600	U
100-42-5	Styrene	600	U
75-25-2	Bromoform	600	U
79-34-5	1,1,2,2-Tetrachloroethane	600	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-1

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.03

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004089.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.4 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-2

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.04

Sample wt/vol: 9.5 (g/ml) G Lab File ID: VC004090.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.43 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2200	U
107131	Acrylonitrile	2200	U
75650	tert-Butyl alcohol	4000	U
1634044	Methyl-tert-Butyl ether	930	U
108203	Di-isopropyl ether	620	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	310	U
75-01-4	Vinyl Chloride	930	U
74-83-9	Bromomethane	620	U
75-00-3	Chloroethane	930	U
75-69-4	Trichlorofluoromethane	620	U
75-35-4	1,1-Dichloroethene	310	U
67-64-1	Acetone	620	U
75-15-0	Carbon Disulfide	310	U
75-09-2	Methylene Chloride	620	U
156-60-5	trans-1,2-Dichloroethene	620	U
75-35-3	1,1-Dichloroethane	310	U
108-05-4	Vinyl Acetate	930	U
78-93-3	2-Butanone	930	U
	cis-1,2-Dichloroethene	310	U
67-66-3	Chloroform	310	U
75-55-6	1,1,1-Trichloroethane	310	U
56-23-5	Carbon Tetrachloride	620	U
71-43-2	Benzene	310	U
107-06-2	1,2-Dichloroethane	620	U
79-01-6	Trichloroethene	310	U
78-87-5	1,2-Dichloropropane	310	U
75-27-4	Bromodichloromethane	310	U
110-75-8	2-Chloroethyl vinyl ether	620	U
10061-01-5	cis-1,3-Dichloropropene	310	U
108-10-1	4-Methyl-2-Pentanone	620	U
108-88-3	Toluene	310	U
10061-02-6	trans-1,3-Dichloropropene	620	U
79-00-5	1,1,2-Trichloroethane	620	U
127-18-4	Tetrachloroethene	310	U
591-78-6	2-Hexanone	620	U
126-48-1	Dibromochloromethane	620	U
108-90-7	Chlorobenzene	310	U
100-41-4	Ethylbenzene	620	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-2

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.04

Sample wt/vol: 9.5 (g/ml) G Lab File ID: VC004090.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.43 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	930	U
1330-20-7	o-Xylene	620	U
100-42-5	Styrene	620	U
75-25-2	Bromoform	620	U
79-34-5	1,1,2,2-Tetrachloroethane	620	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID. **1104-2**

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.04

Sample wt/vol: 9.5 (g/ml) G Lab File ID: VC004090.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.43 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-3

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.05

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004091.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 16.87 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2200	U
107131	Acrylonitrile	2200	U
75650	tert-Butyl alcohol	4000	U
1634044	Methyl-tert-Butyl ether	930	U
108203	Di-isopropyl ether	620	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	310	U
75-01-4	Vinyl Chloride	930	U
74-83-9	Bromomethane	620	U
75-00-3	Chloroethane	930	U
75-69-4	Trichlorofluoromethane	620	U
75-35-4	1,1-Dichloroethene	310	U
67-64-1	Acetone	620	U
75-15-0	Carbon Disulfide	310	U
75-09-2	Methylene Chloride	620	U
156-60-5	trans-1,2-Dichloroethene	620	U
75-35-3	1,1-Dichloroethane	310	U
108-05-4	Vinyl Acetate	930	U
78-93-3	2-Butanone	930	U
	cis-1,2-Dichloroethene	310	U
67-66-3	Chloroform	310	U
75-55-6	1,1,1-Trichloroethane	310	U
56-23-5	Carbon Tetrachloride	620	U
71-43-2	Benzene	310	U
107-06-2	1,2-Dichloroethane	620	U
79-01-6	Trichloroethene	310	U
78-87-5	1,2-Dichloropropane	310	U
75-27-4	Bromodichloromethane	310	U
110-75-8	2-Chloroethyl vinyl ether	620	U
10061-01-5	cis-1,3-Dichloropropene	310	U
108-10-1	4-Methyl-2-Pentanone	620	U
108-88-3	Toluene	310	U
10061-02-6	trans-1,3-Dichloropropene	620	U
79-00-5	1,1,2-Trichloroethane	620	U
127-18-4	Tetrachloroethene	310	U
591-78-6	2-Hexanone	620	U
126-48-1	Dibromochloromethane	620	U
108-90-7	Chlorobenzene	310	U
100-41-4	Ethylbenzene	620	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-3

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.05

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004091.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 16.87 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	930	U
1330-20-7	o-Xylene	620	U
100-42-5	Styrene	620	U
75-25-2	Bromoform	620	U
79-34-5	1,1,2,2-Tetrachloroethane	620	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-3

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.05

Sample wt/vol: 9.7 (g/ml) G Lab File ID: VC004091.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 16.87 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-4

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.06

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VC004092.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.65 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2000	U
107131	Acrylonitrile	2000	U
75650	tert-Butyl alcohol	3800	U
1634044	Methyl-tert-Butyl ether	870	U
108203	Di-isopropyl ether	580	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	290	U
75-01-4	Vinyl Chloride	870	U
74-83-9	Bromomethane	580	U
75-00-3	Chloroethane	870	U
75-69-4	Trichlorofluoromethane	580	U
75-35-4	1,1-Dichloroethene	290	U
67-64-1	Acetone	580	U
75-15-0	Carbon Disulfide	290	U
75-09-2	Methylene Chloride	580	U
156-60-5	trans-1,2-Dichloroethene	580	U
75-35-3	1,1-Dichloroethane	290	U
108-05-4	Vinyl Acetate	870	U
78-93-3	2-Butanone	870	U
	cis-1,2-Dichloroethene	290	U
67-66-3	Chloroform	290	U
75-55-6	1,1,1-Trichloroethane	290	U
56-23-5	Carbon Tetrachloride	580	U
71-43-2	Benzene	290	U
107-06-2	1,2-Dichloroethane	580	U
79-01-6	Trichloroethene	290	U
78-87-5	1,2-Dichloropropane	290	U
75-27-4	Bromodichloromethane	290	U
110-75-8	2-Chloroethyl vinyl ether	580	U
10061-01-5	cis-1,3-Dichloropropene	290	U
108-10-1	4-Methyl-2-Pentanone	580	U
108-88-3	Toluene	290	U
10061-02-6	trans-1,3-Dichloropropene	580	U
79-00-5	1,1,2-Trichloroethane	580	U
127-18-4	Tetrachloroethene	290	U
591-78-6	2-Hexanone	580	U
126-48-1	Dibromochloromethane	580	U
108-90-7	Chlorobenzene	290	U
100-41-4	Ethylbenzene	580	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-4

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.06

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VC004092.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.65 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	870	U
1330-20-7	o-Xylene	580	U
100-42-5	Styrene	580	U
75-25-2	Bromoform	580	U
79-34-5	1,1,2,2-Tetrachloroethane	580	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-4

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.06

Sample wt/vol: 10.5 (g/ml) G Lab File ID: VC004092.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.65 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-5

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.07

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC004093.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.72 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2100	U
107131	Acrylonitrile	2100	U
75650	tert-Butyl alcohol	3900	U
1634044	Methyl-tert-Butyl ether	900	U
108203	Di-isopropyl ether	600	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	300	U
75-01-4	Vinyl Chloride	900	U
74-83-9	Bromomethane	600	U
75-00-3	Chloroethane	900	U
75-69-4	Trichlorofluoromethane	600	U
75-35-4	1,1-Dichloroethene	300	U
67-64-1	Acetone	600	U
75-15-0	Carbon Disulfide	300	U
75-09-2	Methylene Chloride	600	U
156-60-5	trans-1,2-Dichloroethene	600	U
75-35-3	1,1-Dichloroethane	300	U
108-05-4	Vinyl Acetate	900	U
78-93-3	2-Butanone	900	U
	cis-1,2-Dichloroethene	300	U
67-66-3	Chloroform	300	U
75-55-6	1,1,1-Trichloroethane	300	U
56-23-5	Carbon Tetrachloride	600	U
71-43-2	Benzene	300	U
107-06-2	1,2-Dichloroethane	600	U
79-01-6	Trichloroethene	300	U
78-87-5	1,2-Dichloropropane	300	U
75-27-4	Bromodichloromethane	300	U
110-75-8	2-Chloroethyl vinyl ether	600	U
10061-01-5	cis-1,3-Dichloropropene	300	U
108-10-1	4-Methyl-2-Pentanone	600	U
108-88-3	Toluene	300	U
10061-02-6	trans-1,3-Dichloropropene	600	U
79-00-5	1,1,2-Trichloroethane	600	U
127-18-4	Tetrachloroethene	300	U
591-78-6	2-Hexanone	600	U
126-48-1	Dibromochloromethane	600	U
108-90-7	Chlorobenzene	300	U
100-41-4	Ethylbenzene	600	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-5

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.07

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC004093.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.72 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	900	U
1330-20-7	o-Xylene	600	U
100-42-5	Styrene	600	U
75-25-2	Bromoform	600	U
79-34-5	1,1,2,2-Tetrachloroethane	600	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-5

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.07

Sample wt/vol: 9.9 (g/ml) G Lab File ID: VC004093.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.72 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-6

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.08

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC004094.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 18.37 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2200	U
107131	Acrylonitrile	2200	U
75650	tert-Butyl alcohol	4100	U
1634044	Methyl-tert-Butyl ether	950	U
108203	Di-isopropyl ether	630	U
75718	Dichlorodifluoromethane	1300	U
74-87-3	Chloromethane	320	U
75-01-4	Vinyl Chloride	950	U
74-83-9	Bromomethane	630	U
75-00-3	Chloroethane	950	U
75-69-4	Trichlorofluoromethane	630	U
75-35-4	1,1-Dichloroethene	320	U
67-64-1	Acetone	630	U
75-15-0	Carbon Disulfide	320	U
75-09-2	Methylene Chloride	630	U
156-60-5	trans-1,2-Dichloroethene	630	U
75-35-3	1,1-Dichloroethane	320	U
108-05-4	Vinyl Acetate	950	U
78-93-3	2-Butanone	950	U
	cis-1,2-Dichloroethene	320	U
67-66-3	Chloroform	320	U
75-55-6	1,1,1-Trichloroethane	320	U
56-23-5	Carbon Tetrachloride	630	U
71-43-2	Benzene	320	U
107-06-2	1,2-Dichloroethane	630	U
79-01-6	Trichloroethene	320	U
78-87-5	1,2-Dichloropropane	320	U
75-27-4	Bromodichloromethane	320	U
110-75-8	2-Chloroethyl vinyl ether	630	U
10061-01-5	cis-1,3-Dichloropropene	320	U
108-10-1	4-Methyl-2-Pentanone	630	U
108-88-3	Toluene	320	U
10061-02-6	trans-1,3-Dichloropropene	630	U
79-00-5	1,1,2-Trichloroethane	630	U
127-18-4	Tetrachloroethene	320	U
591-78-6	2-Hexanone	630	U
126-48-1	Dibromochloromethane	630	U
108-90-7	Chlorobenzene	320	U
100-41-4	Ethylbenzene	630	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-6

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.08

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC004094.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 18.37 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	950	U
1330-20-7	o-Xylene	630	U
100-42-5	Styrene	630	U
75-25-2	Bromoform	630	U
79-34-5	1,1,2,2-Tetrachloroethane	630	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-6

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.08

Sample wt/vol: 9.6 (g/ml) G Lab File ID: VC004094.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 18.37 Date Analyzed: 10/10/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-7

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.09

Sample wt/vol: 10.8 (g/ml) G Lab File ID: VC004124.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.8 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	1900	U
107131	Acrylonitrile	1900	U
75650	tert-Butyl alcohol	3600	U
1634044	Methyl-tert-Butyl ether	830	U
108203	Di-isopropyl ether	550	U
75718	Dichlorodifluoromethane	1100	U
74-87-3	Chloromethane	280	U
75-01-4	Vinyl Chloride	830	U
74-83-9	Bromomethane	550	U
75-00-3	Chloroethane	830	U
75-69-4	Trichlorofluoromethane	550	U
75-35-4	1,1-Dichloroethene	280	U
67-64-1	Acetone	550	U
75-15-0	Carbon Disulfide	280	U
75-09-2	Methylene Chloride	550	U
156-60-5	trans-1,2-Dichloroethene	550	U
75-35-3	1,1-Dichloroethane	280	U
108-05-4	Vinyl Acetate	830	U
78-93-3	2-Butanone	830	U
	cis-1,2-Dichloroethene	280	U
67-66-3	Chloroform	280	U
75-55-6	1,1,1-Trichloroethane	280	U
56-23-5	Carbon Tetrachloride	550	U
71-43-2	Benzene	280	U
107-06-2	1,2-Dichloroethane	550	U
79-01-6	Trichloroethene	280	U
78-87-5	1,2-Dichloropropane	280	U
75-27-4	Bromodichloromethane	280	U
110-75-8	2-Chloroethyl vinyl ether	550	U
10061-01-5	cis-1,3-Dichloropropene	280	U
108-10-1	4-Methyl-2-Pentanone	550	U
108-88-3	Toluene	280	U
10061-02-6	trans-1,3-Dichloropropene	550	U
79-00-5	1,1,2-Trichloroethane	550	U
127-18-4	Tetrachloroethene	280	U
591-78-6	2-Hexanone	550	U
126-48-1	Dibromochloromethane	550	U
108-90-7	Chlorobenzene	280	U
100-41-4	Ethylbenzene	550	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-7

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.09

Sample wt/vol: 10.8 (g/ml) G Lab File ID: VC004124.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.8 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	830	U
1330-20-7	o-Xylene	550	U
100-42-5	Styrene	550	U
75-25-2	Bromoform	550	U
79-34-5	1,1,2,2-Tetrachloroethane	550	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-7

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.09

Sample wt/vol: 10.8 (g/ml) G Lab File ID: VC004124.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 15.8 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.10

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC004125.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.95 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	2100	U
107131	Acrylonitrile	2100	U
75650	tert-Butyl alcohol	3900	U
1634044	Methyl-tert-Butyl ether	890	U
108203	Di-isopropyl ether	600	U
75718	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	300	U
75-01-4	Vinyl Chloride	890	U
74-83-9	Bromomethane	600	U
75-00-3	Chloroethane	890	U
75-69-4	Trichlorofluoromethane	600	U
75-35-4	1,1-Dichloroethene	300	U
67-64-1	Acetone	600	U
75-15-0	Carbon Disulfide	300	U
75-09-2	Methylene Chloride	600	U
156-60-5	trans-1,2-Dichloroethene	600	U
75-35-3	1,1-Dichloroethane	300	U
108-05-4	Vinyl Acetate	890	U
78-93-3	2-Butanone	890	U
	cis-1,2-Dichloroethene	300	U
67-66-3	Chloroform	300	U
75-55-6	1,1,1-Trichloroethane	300	U
56-23-5	Carbon Tetrachloride	600	U
71-43-2	Benzene	300	U
107-06-2	1,2-Dichloroethane	600	U
79-01-6	Trichloroethene	300	U
78-87-5	1,2-Dichloropropane	300	U
75-27-4	Bromodichloromethane	300	U
110-75-8	2-Chloroethyl vinyl ether	600	U
10061-01-5	cis-1,3-Dichloropropene	300	U
108-10-1	4-Methyl-2-Pentanone	600	U
108-88-3	Toluene	300	U
10061-02-6	trans-1,3-Dichloropropene	600	U
79-00-5	1,1,2-Trichloroethane	600	U
127-18-4	Tetrachloroethene	300	U
591-78-6	2-Hexanone	600	U
126-48-1	Dibromochloromethane	600	U
108-90-7	Chlorobenzene	300	U
100-41-4	Ethylbenzene	600	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.10

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC004125.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.95 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	890	U
1330-20-7	o-Xylene	600	U
100-42-5	Styrene	600	U
75-25-2	Bromoform	600	U
79-34-5	1,1,2,2-Tetrachloroethane	600	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Field Dupe

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 5766.10

Sample wt/vol: 10.2 (g/ml) G Lab File ID: VC004125.D

Level: (low/med) MED Date Received: 10/4/00

% Moisture: not dec. 17.95 Date Analyzed: 10/11/00

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Lab File ID: VC004050.D BFB Injection Date: 10/6/00

Instrument ID: GCMSVoa BFB Injection Time: 15:07

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.3
75	30.0 - 66.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.2 (1.3)1
174	50.0 - 120.0% of mass 95	87.8
175	4.0 - 9.0% of mass 174	6.9 (7.9)1
176	93.0 - 101.0% of mass 174	86.9 (98.9)1
177	5.0 - 9.0% of mass 176	6.5 (7.5)2

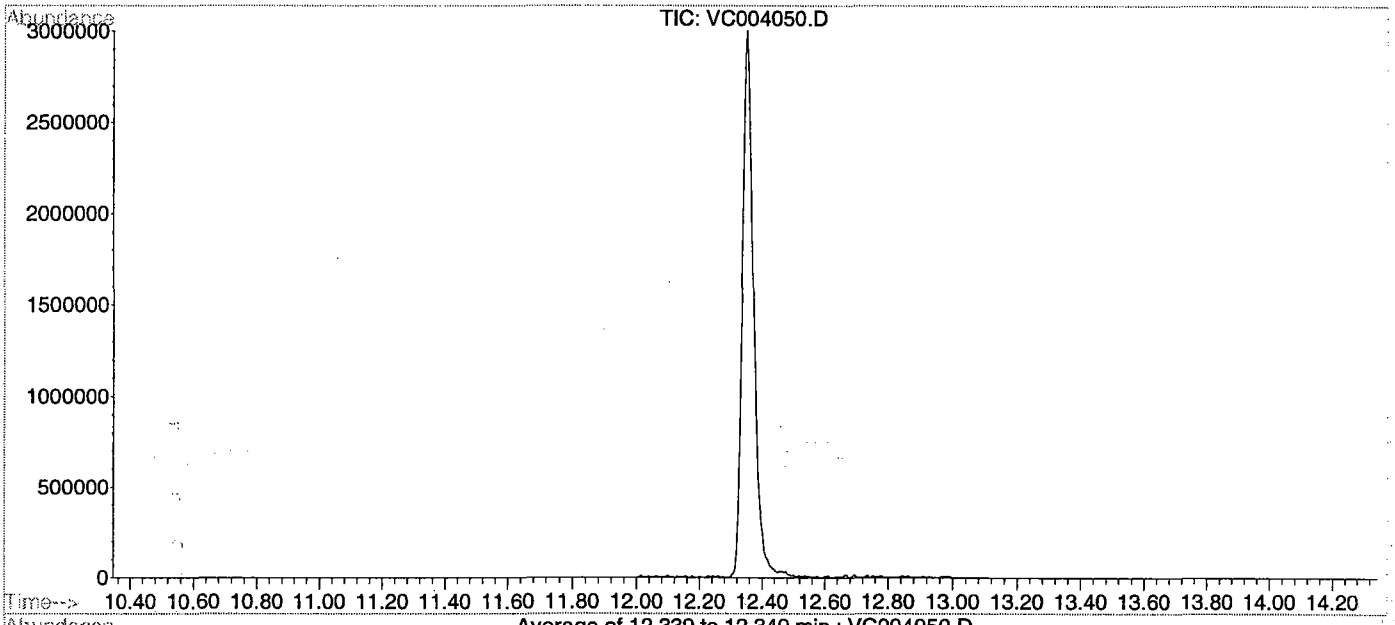
1-Value is % mass 174 2-Value is % mass 176

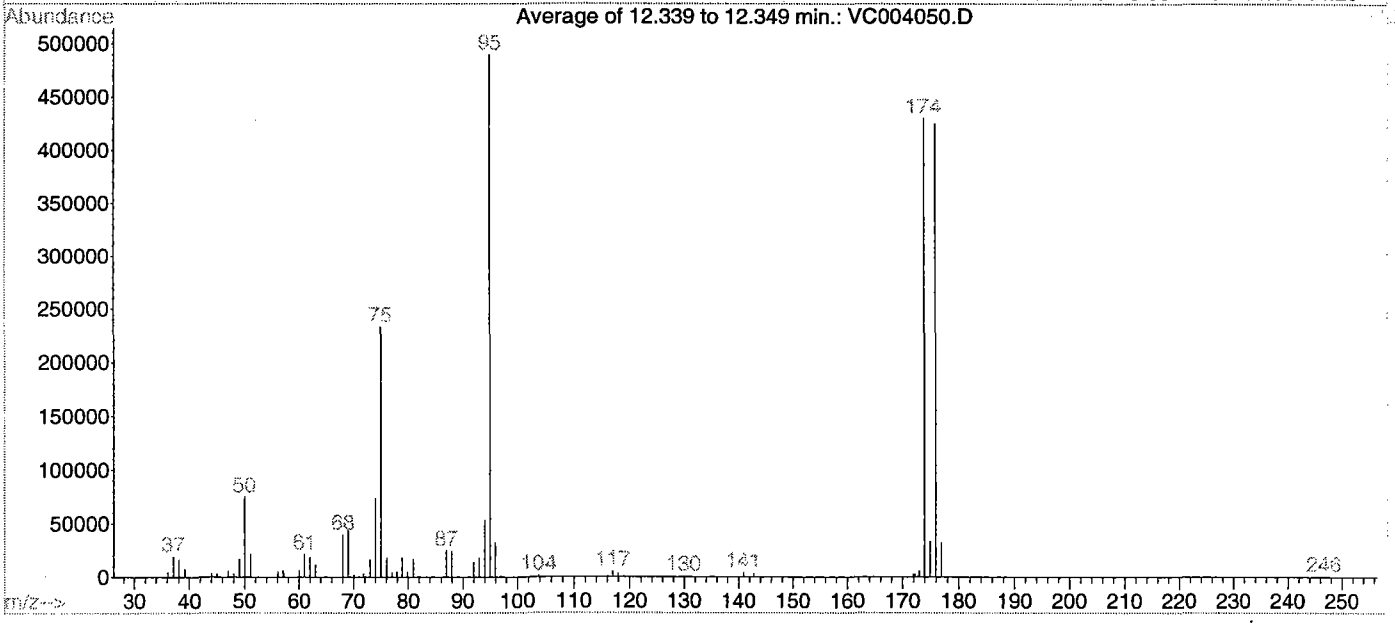
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	VC004051.D	10/6/00	15:46
02	VSTD050	VSTD050	VC004052.D	10/6/00	16:27
03	VSTD020	VSTD020	VC004053.D	10/6/00	17:08
04	VSTD010	VSTD010	VC004054.D	10/6/00	17:48
05	VSTD005	VSTD005	VC004055.D	10/6/00	18:29

BFB

Data File : D:\HPCHEM\1\DATA\001006\VC004050.D Vial: 22
Acq On : 6 Oct 2000 3:07 pm Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : D:\HPCHEM\1\METHODS\M352410.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 524.2





Spectrum Information: Average of 12.339 to 12.349 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	74744	PASS
75	95	30	60	47.7	233472	PASS
95	95	100	100	100.0	489792	PASS
96	95	5	9	6.6	32251	PASS
173	174	0.00	2	1.3	5763	PASS
174	95	50	100	87.8	430251	PASS
175	174	5	9	7.9	33888	PASS
176	174	95	101	98.9	425387	PASS
177	176	5	9	7.5	31832	PASS

000053

VC004050.D M352410.M Tue Oct 24 09:35:00 2000

Response Factor Report GC/MS Ins

Method : D:\HPCHEM\1\METHODS\M362427.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP
Last Update : Tue Oct 10 08:04:53 2000
Response via : Initial Calibration

Calibration Files
50 =VC004052.D 5 =VC004055.D 10 =VC004054.D
20 =VC004053.D 100 =VC004051.D

		Compound	50	5	10	20	100	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------						
2)	t	Acrolein	0.134	0.110	0.112	0.143	0.171	0.134	18.57
3)	t	Acrylonitrile	0.766	0.681	0.717	0.798	0.694	0.731	6.74
4)	t	tert-Butyl alcohol	0.112	0.099	0.094	0.108	0.071	0.097	16.71
5)	t	Methyl-tert-Butyl eth	3.925	2.750	3.135	3.692	4.405	3.581	18.19
6)	t	Di-isopropyl ether	1.250	0.734	0.946	1.088	1.486	1.101	26.03
7)	T	Dichlorodifluorometha	2.070	1.721	1.674	1.903	2.061	1.886	9.81
8)	TP	Chloromethane	1.473	1.628	1.550	1.694	1.672	1.603	5.70
9)	TC	Vinyl Chloride	1.317	1.343	1.313	1.334	1.034	1.268	10.35
10)	T	Bromomethane	0.900	0.862	0.949	0.905	0.855	0.894	4.25
11)	T	Chloroethane	1.012	0.899	0.945	1.049	1.080	0.997	7.44
12)	T	Trichlorofluoromethan	2.540	2.394	2.492	2.502	2.611	2.508	3.14
13)	MC	1,1-Dichloroethene	1.920	1.891	1.821	1.916	2.040	1.917	4.13
14)	T	Acetone	0.809	0.819	0.848	0.874	0.821	0.834	3.19
15)	T	Carbon Disulfide	4.586	4.054	4.186	4.471	4.780	4.415	6.69
16)	T	Methylene Chloride	1.803	2.042	1.881	1.825	1.893	1.889	4.96
17)	T	trans-1,2-Dichloroeth	2.125	1.762	1.876	2.059	2.365	2.037	11.43
18)	TP	1,1-Dichloroethane	2.888	2.642	2.682	2.851	2.355	2.684	7.89
19)	T	Vinyl Acetate	2.397	2.912	1.632	2.053	2.879	2.375	23.05
20)	T	2-Butanone	0.891	0.582	0.618	0.773	1.089	0.791	26.31
21)	T	cis-1,2-Dichloroethen	2.106	1.519	1.698	1.949	2.295	1.914	16.23
22)	TC	Chloroform	2.648	2.486	2.602	2.700	2.744	2.636	3.77
23)	T	1,1,1-Trichloroethane	2.045	1.789	1.830	1.982	2.202	1.970	8.48
24)	T	Carbon Tetrachloride	1.809	1.545	1.641	1.728	1.936	1.732	8.70
25)	S	1,2-Dichloroethane-d4	1.837	1.839	1.867	1.902	1.863	1.862	1.40
26)	I	1,4-Difluorobenzene	----------ISTD----------						
27)	TM	Benzene	1.152	1.146	1.139	1.196	0.959	1.118	8.20
28)	T	1,2-Dichloroethane	0.331	0.330	0.326	0.333	0.324	0.329	1.07
29)	TM	Trichloroethene	0.306	0.276	0.273	0.288	0.312	0.291	6.08
30)	TC	1,2-Dichloropropane	0.301	0.268	0.259	0.293	0.310	0.286	7.61
31)	T	Bromodichloromethane	0.334	0.298	0.300	0.319	0.349	0.320	6.86
32)	T	2-Chloroethyl vinyl e	0.102	0.090	0.100	0.097	0.104	0.099	5.62
33)	T	cis-1,3-Dichloroprope	0.430	0.281	0.344	0.389	0.438	0.377	17.30
34)	T	4-Methyl-2-Pentanone	0.107	0.065	0.077	0.094	0.129	0.094	26.51
35)	S	Toluene-d8	1.235	1.245	1.226	1.240	1.196	1.229	1.57
36)	TCM	Toluene	1.134	1.141	1.164	1.194	0.887	1.104	11.19
37)	I	Chlorobenzene-d5	----------ISTD----------						
38)	T	trans-1,3-Dichloropro	1.382	0.893	1.066	1.170	1.410	1.184	18.35
39)	T	1,1,2-Trichloroethane	0.996	0.938	0.904	0.938	1.005	0.956	4.46
40)	T	Tetrachloroethene	1.023	0.921	0.906	0.973	1.025	0.970	5.72
41)	T	2-Hexanone	0.669	0.336	0.441	0.542	0.778	0.553	31.84
42)	T	Dibromochloromethane	0.856	0.693	0.692	0.754	0.935	0.786	13.57
43)	TMP	Chlorobenzene	2.707	2.813	2.714	2.685	2.299	2.644	7.52
44)	TC	Ethylbenzene	4.089	3.973	4.290	4.383	3.014	3.950	13.86
45)	T	m+p-Xylenes	1.711	1.539	1.688	1.717	1.381	1.607	9.09
46)	T	o-Xylene	3.365	2.321	2.854	3.229	2.732	2.900	14.32
47)	T	Styrene	2.844	2.018	2.487	2.782	2.491	2.524	12.95
48)	TP	Bromoform	0.610	0.425	0.448	0.467	0.682	0.526	21.42
49)	S	Bromofluorobenzene	1.656	1.477	1.497	1.489	1.637	1.551	5.66
50)	TP	1,1,2,2-Tetrachloroet	1.425	1.264	1.265	1.291	1.440	1.337	6.60
51)	T	1,3-Dichlorobenzene	2.033	1.519	1.659	1.864	1.814	1.778	11.07
52)	T	1,4-Dichlorobenzene	2.117	1.536	1.705	1.917	1.835	1.822	12.01
53)	T	1,2-Dichlorobenzene	2.064	1.547	1.734	1.881	1.808	1.807	10.52

000054

(#) = Out of Range

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Lab File ID: VC004081.D BFB Injection Date: 10/10/00

Instrument ID: GCMSVoa BFB Injection Time: 8:32

GC Column: Rtx502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.9
75	30.0 - 66.0% of mass 95	45.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.7
175	4.0 - 9.0% of mass 174	6.5 (7.6)1
176	93.0 - 101.0% of mass 174	82.2 (97.1)1
177	5.0 - 9.0% of mass 176	6.9 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	FIELD ID.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC004083.D	10/10/00	10:15
02	VBLK115	VBLK115	VC004085.D	10/10/00	14:10
03	TRIP BLANK	5766.01	VC004088.D	10/10/00	16:28
04	1104-1	5766.03	VC004089.D	10/10/00	17:08
05	1104-2	5766.04	VC004090.D	10/10/00	17:48
06	1104-3	5766.05	VC004091.D	10/10/00	18:28
07	1104-4	5766.06	VC004092.D	10/10/00	19:08
08	1104-5	5766.07	VC004093.D	10/10/00	19:48
09	1104-6	5766.08	VC004094.D	10/10/00	20:28
10	5766.09MS	5766.09MS	VC004097.D	10/10/00	22:28
11	5766.09MSD	5766.09MSD	VC004098.D	10/10/00	23:07
12	FIELD BLANK	5766.02	VC004103.D	10/11/00	2:28
13	1104-GW	5766.11	VC004104.D	10/11/00	3:07

SEMIVOLATILE ORGANICS

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04550.D**	Sample Name	**Sblk426**
Operator	**Bhaskar**	Misc Info	**Sblk426 A 001005**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA04550.D**	Sample Name	**Sblk426**
Operator	**Bhaskar**	Misc Info	**Sblk426 A 001005**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **Sblk426**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: Sblk426

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04550.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	6.82	6	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04554.D**	Sample Name	**5766.02**
Operator	**Bhaskar**	Misc Info	**Field Blank**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA04554.D**	Sample Name	**5766.02**
Operator	**Bhaskar**	Misc Info	**Field Blank**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **Field Blank**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: BI.1104 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 5766.02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04554.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04555.D**	Sample Name	**5766.11**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene	13.21	1500026	38.25 ug/L	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene	14.96	11218818	442.85 ug/L	NLE	0.55	ug/L	E
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene	17.65	521308	26.53 ug/L	400	0.62	ug/L	
132-64-9	Dibenzofuran	18.02	683085	23.67 ug/L	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene	18.81	1280206	56.36 ug/L	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine	19.10	555424	34.71 ug/L	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene	20.91	3361909	98.19 ug/L	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene	23.38	105319	2.78 ug/L	300	1.48	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA04555.D**	Sample Name	**5766.11**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene	23.83	692304	11.31 ug/L	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate	25.24	105063	3.91 ug/L	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	26.42	146426	3.85 ug/L	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04556.D**	Sample Name	**5766.11 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**6-Oct-00**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	15.40	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	6.90	ug/L	
62-53-3	Aniline			not detected	NLE	18.50	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	6.30	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	6.20	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	5.80	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	6.20	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	6.50	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	5.70	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	6.40	ug/L	
67-72-1	Hexachloroethane			not detected	10	3.40	ug/L	
98-95-3	Nitrobenzene			not detected	10	5.10	ug/L	
78-59-1	Isophorone			not detected	100	4.50	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	4.80	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	5.40	ug/L	
91-20-3	Naphthalene	13.18	267496	44.68 ug/L	NLE	7.20	ug/L	D
106-47-8	4-Chloroaniline			not detected	NLE	17.80	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	4.30	ug/L	
91-57-6	2-Methylnaphthalene	14.85	2396380	619.52 ug/L	NLE	5.50	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	7.60	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	5.30	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	10.40	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	10.40	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	7.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	9.20	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	19.30	ug/L	
83-32-9	Acenaphthene	17.57	120995	37.15 ug/L	400	6.20	ug/L	D
132-64-9	Dibenzofuran	17.94	136824	28.60 ug/L	NLE	7.30	ug/L	D
121-14-2	2,4-Dinitrotoluene			not detected	10	14.10	ug/L	
84-66-2	Diethylphthalate			not detected	5000	15.40	ug/L	
86-73-7	Fluorene	18.73	272489	72.38 ug/L	300	9.80	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	8.60	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	29.60	ug/L	
86-30-6	n-Nitrosodiphenylamine	19.02	127668	46.42 ug/L	20	14.40	ug/L	D
103-33-3	Azobenzene			not detected	NLE	10.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	12.80	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	10.80	ug/L	
85-01-8	Phenanthrene	20.82	704055	119.64 ug/L	NLE	17.30	ug/L	D
120-12-7	Anthracene			not detected	2000	18.50	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	24.90	ug/L	
206-44-0	Fluoranthene			not detected	300	14.80	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA04556.D**	Sample Name	**5766.11 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**6-Oct-00**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	21.50	ug/L	
129-00-0	Pyrene			not detected	200	15.30	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	12.40	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	26.80	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	16.00	ug/L	
218-01-9	Chrysene			not detected	20	11.40	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	13.40	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	14.40	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	13.20	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	11.50	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	24.30	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	22.40	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	19.40	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	20.40	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **1104-GW**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 5766.11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04555.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 14 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	9.14	40	J
2.	unknown	9.70	76	J
3. 000108-67-8	Benzene, 1,3,5-trimethyl-	9.88	110	JN
4.	unknown	10.31	40	J
5. 000620-14-4	Benzene, 1-ethyl-3-methyl-	10.43	64	JN
6. 001678-93-9	Cyclohexane, butyl-	10.54	17	JN
7. 000496-11-7	Indane	10.68	42	JN
8. 000000-00-0	1-Ethyl-2,2,6-trimethylcyclohexan	10.79	23	JN
9.	unknown	10.98	22	J
10. 013151-34-3	Decane, 3-methyl-	11.15	48	JN
11. 001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	11.36	25	JN
12. 000573-98-8	Naphthalene, 1,2-dimethyl-	17.04	59	JN
13. 002131-42-2	Naphthalene, 1,4,6-trimethyl-	17.82	40	JN
14.	unknown	19.18	71	J

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables Checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete data 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: 10/24/00

Laboratory Certification # 13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO# 100004

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
1104-A/North End 8-8.5'	5655.01	Soil	23-Aug-00 13:50	08/23/00
1104-B/Center 8-8.5'	5655.02	Soil	23-Aug-00 13:55	08/23/00
1104-C/South End 8-8.5'	5655.03	Soil	23-Aug-00 14:10	08/23/00
1104-D/Duplicate 8.8.5'	5655.04	Soil	23-Aug-00 14:10	08/23/00
Trip Blank	5655.05	Methanol	23-Aug-00	08/23/00

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

8-30-00

Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

NJDEP Method OQA-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 orbital 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.

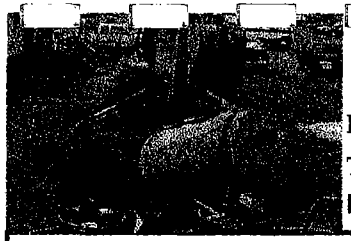
TPHC Conformance/Non-conformance Summary Report

		Indicate Yes, No, N/A
1.	Method Detection Limits provided.	yes
2.	Method Blank Contamination – If yes, list the sample and the Corresponding concentrations in each blank.	NO
3.	Matrix Spike Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range). Spike recovery low See Method blank spike	NO
4.	Duplicate Results Summary Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range). RPD high	NO
5.	IR Spectra submitted for standards, blanks and samples.	NA
6.	Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted.	yes
7.	Analysis holding time met. (If not met, list number of days exceeded for each sample).	yes

Additional comments: _____

Laboratory Manager

8-30-05
Date



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461 / NYDOH Certification #11699

Chain of Custody Record

Customer: Dinker Desai
Phone #: X21475
( )DERA (X)OMA UST Assessment

Project No: 100004
Location: BLDG. 1104
UST# 8153 - 164

Samplers Name / Company : Frank Accorsi/TVS

Analysis Parameters: TPHC; % SOLIDS; VOA+10 *; VOA ID #; PID Reading

* = Samples Kept <4°C

Lab Sample I.D.	Sample Location	Depth	Date	Time	Sample Type	# Bottles	TPHC	% SOLIDS	VOA+10 *	VOA ID #	PID Reading	Remarks / Preservation Method
52655.01	1104-A, NORTH END	8-8.5 FT	8-23-00	1350	SOIL	2	X	X	X	2046	22	ICE
02	1104-B, CENTER	8-8.5		1355		2	X	X	X	2047	28	
03	1104-C, SOUTH END	8-8.5		1410		2	X	X	X	2048	34	
04	1104-D, DUPLICATE	8-8.5		1410		2	X	X	X	2049	35	
05	TRIP BLANK	-		-	AQ.	1			X	2050	-	

OVM sn#580U-64455.343 was calibrated with zero air & w/~~245~~ 247 ppm Isobutylene read 247 ppm. 8-23-00 1030 FA (time/date & initial)

Relinquished by (signature):	Date/Time:	Received by (signature):
Frank Accorsi	8-23-00 1505	
Relinquished by (signature):	Date/Time:	Received by (signature):

Comments: * VOA+10 on 25% > 1,000 ppm TPH, on highest.

Report Type: ( )Full, ( )Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 2 wks, (X)Rush 3 Days, ( )ASAP Verbal ___ Hrs.

Remarks: Dedicated Sampling Tools Used
All sample points have been GPS? (X)YES ( )NO ( )NA

000003

print legibly

USTcoc.xls3/21/00

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

Client :	US. Army	**Project # :**	5655
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis :	OQA-QAM-025	**Date Received :**	23-Aug-00
Matrix :	Soil	**Date Extracted :**	24-Aug-00
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	24-Aug-00
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
5655.01	1104-A	**5.00**	15.41	81.43	187	**15558.62**
5655.02	1104-B	**5.00**	15.17	81.75	189	**9755.05**
5655.03	1104-C	**1.00**	15.53	80.15	189	**1669.23**
5655.04	1104-D	**1.00**	15.32	82.16	187	**1125.29**
METHOD BLANK	TBLK424	**1.00**	15.00	100.00	157	**ND**

ND = Not Detected

MDL = Method Detection Limit

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

Client :	US. Army	**Project # :**	5655
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	23-Aug-00
Matrix:	Soil	**Date Extracted :**	24-Aug-00
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	24-Aug-00
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
5655.01			10.00	11.00	**110.04**
5655.02			10.00	11.69	**116.86**
5655.03			10.00	11.45	**114.46**
5655.04			10.00	11.76	**117.64**
METHOD BLANK	TBLK424		10.00	11.09	**110.89**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	US. Army	**Project # :**	5655
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	23-Aug-00
Matrix:	Soil	**Date Extracted :**	24-Aug-00
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	24-Aug-00
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
5650.02MS	1000	1268.23	1679.66	41.14	75-125
5650.02MSD	1000	1268.23	1554.73	28.65	75-125

RPD	**35.80**	**20.00**

Quality Control Check Standard Summary
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	US. Army	**Project # :**	5655
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	23-Aug-00
Matrix:	Soil	**Date Extracted :**	24-Aug-00
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	24-Aug-00
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
TBLK424BS	24-Aug-00	1000	1020.87	102.09	75-125

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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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 5/30/00

Laboratory Certification #13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO# 01-0001

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
1104-PX1 North Wall 7.5-8'	977	Soil	21-Feb-01 14:40	02/21/01
1104-PX2 East Wall 7.5-8'	982	Soil	21-Feb-01 14:25	02/21/01
1104-PX3 West Wall 7.5-8'	987	Soil	21-Feb-01 14:50	02/21/01
1104-PX4 South Wall 7.5-8'	988	Soil	21-Feb-01 15:20	02/21/01
1104-PX5 Bottom 7.5-8'	989	Soil	21-Feb-01 15:15	02/21/01
1104-PX6 Duplicate 7.5-8'	990	Soil	21-Feb-01 15:15	02/21/01
Trip Blank	1036	Methanol	21-Feb-01	02/21/01

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

3-14-01
Daniel Wright/Date
Laboratory Director

Table of Contents

CHAIN OF CUSTODY

Change of Chain of Custody

Lab Project ID#: 987 + TB Site/Project Name: Bldg 1164

Date Received: 2/21/01 Date of Change: 2/26/01

Requested by: print Frank Accorsi Sign: _____

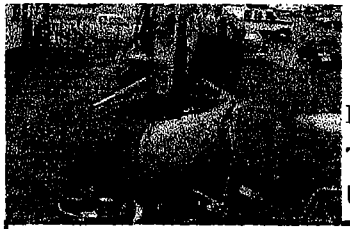
Turnaround Time: _____

1. Were the correct containers and/or preservatives used for the tests indicated? (Yes) No
2. Was a sufficient amount of sample sent for the tests indicated? (Yes) No
3. Are samples Within Holding time for new analysis? (Yes) No
4. Was the change documented in the sample receipt log book? (Yes) No

Received by: print _____ Sign: _____

Sample ID#	New Analysis		Sample ID#	New Analysis
987	VOA+15			
TB/1036	+			

Comments: _____



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461 / NYDOH Certification #11699

Chain of Custody Record

Customer: Dinker Desai
Phone #: X21475
( )DERA (X)OMA UST Assessment

Project No: ~~100004~~ 01-0001
Location: BLDG. 1104
UST# 81533-164

Samplers Name / Company : Frank Accorsi/TVS

Lab Sample I.D.	Sample Location	Depth (Ft)	Date	Time	Sample Type	# Bottles	TPHC	% SOLIDS	VOA+10 *	VOA ID #	PID Reading	Remarks / Preservation Method
977	1104-PX1, NORTH WALL	7.5-8	2-21-01	1440	SOIL	2	X	X	X	2254	2	ICE
982	1104-PX2, EAST WALL	7.5-8		1425		2	X	X	X	2255	1	
987	1104-PX3, WEST WALL	7.5-8		1450		2	X	X	X	2256	5	Batch 1132/2235
988	1104-PX4, SOUTH WALL	7.5-8		1520		2	X	X	X	2257	4	
989	1104-PX5, BOTTOM	7.5-8		1515		2	X	X	X	2258	4	
990	1104-PX6, DUPLICATE	7.5-8		1515		2	X	X	X	2277	4	
1036	TRIP BLANK	—		—	AQ.	1			X	2278	—	
												MS - 993
												LCS - 994
												MS - 995
												MSD 996

* = Samples Kept <4°C

OVM sn#580U-64455.343 was calibrated with zero air & w/ ~~245~~ ppm Isobutylene read 245 ppm. 1100 2-21-01 FA (time/date & initial)

Relinquished by (signature):	Date/Time:	Received by (signature):
Frank Accorsi	2/21/01 1555	
Relinquished by (signature):	Date/Time:	Received by (signature):

Comments: * VOHO ON 25% > 1,000 PPM TPH, ON HIGHEST, MIN. ONE.

Report Type: ( )Full, (X)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 2 wks, (X)Rush 1 Days, (X)ASAP Verbal ___ Hrs.

Remarks: Dedicated Sampling Tools Used
All sample points have been GPS? (X)YES ( )NO ( )NA

OCC003

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METHOD SUMMARY

Method Summary

NJDEP Method 8260

Gas Chromatographic Determination of Volatiles in Soil

A 50uL volume of Methanol Samples soil is added to 5mL aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample as purged and desorbed into a GC/MS system.

Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent solid, methanol volume and concentration.

NJDEP Method OQA-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 orbital 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.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 977-982/987-990,1036 Site: Bldg. 1104

	Date	Hold Time
Date Sampled	02/21/01	NA
Receipt/Refrigeration	02/21/01	NA
Extractions		
1. TPHC	02/22/01	14 days
Analyses		
1. Volatile Organics	02/26/01	14 days
2. TPHC	02/22/01	40 days

CONFORMANCE/NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate Yes, No, N/A

1. Chromatograms labeled/Compounds identified (Field samples and method blanks) — Yes

2. Retention times for chromatograms provided — Yes

3. GC/MS Tune Specifications
   a. BFB Meet Criteria — Yes
   b. DFTPP Meet Criteria — NA

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 NA
   c. Acid Fraction NA

8. Surrogate Recoveries Meet Criteria — Yes

   If not met, list those compounds and their recoveries, which fall outside the acceptable range:
   a. VOA Fraction _____
   b. B/N Fraction NA
   c. Acid Fraction NA

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

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — Yes
   a. VOA Fraction _____
   b. B/N Fraction NA
   c. Acid Fraction NA

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

Indicate
Yes, No, N/A

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

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

11. Extraction Holding Time Met — NA

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: 3-14-01

TPHC Conformance/Non-conformance Summary Report

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

Additional comments: _____

Laboratory Manager _____ Date 3-14-01

VOLATILE ORGANICS

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 022601

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005054.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	700	U
107131	Acrylonitrile	700	U
75650	tert-Butyl alcohol	1300	U
1634044	Methyl-tert-Butyl ether	300	U
108203	Di-isopropyl ether	200	U
75718	Dichlorodifluoromethane	400	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	300	U
74-83-9	Bromomethane	200	U
75-00-3	Chloroethane	300	U
75-69-4	Trichlorofluoromethane	200	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	200	U
156-60-5	trans-1,2-Dichloroethene	200	U
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	200	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	200	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	200	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	200	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	200	U
79-00-5	1,1,2-Trichloroethane	200	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	200	U
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MB 022601

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005054.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

MB 022601

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

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

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005054.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1036

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005055.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	700	U
107131	Acrylonitrile	700	U
75650	tert-Butyl alcohol	1300	U
1634044	Methyl-tert-Butyl ether	300	U
108203	Di-isopropyl ether	200	U
75718	Dichlorodifluoromethane	400	U
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	300	U
74-83-9	Bromomethane	200	U
75-00-3	Chloroethane	300	U
75-69-4	Trichlorofluoromethane	200	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	210	
156-60-5	trans-1,2-Dichloroethene	200	U
75-35-3	1,1-Dichloroethane	100	U
108-05-4	Vinyl Acetate	300	U
78-93-3	2-Butanone	300	U
	cis-1,2-Dichloroethene	100	U
67-66-3	Chloroform	100	U
75-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	200	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	200	U
79-01-6	Trichloroethene	100	U
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
110-75-8	2-Chloroethyl vinyl ether	200	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	200	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	200	U
79-00-5	1,1,2-Trichloroethane	200	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	200	U
126-48-1	Dibromochloromethane	200	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	200	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1036

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005055.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Trip Blank

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 1036

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005055.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 0 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-PX3

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 987

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005056.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 19.56 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107028	Acrolein	880	U
107131	Acrylonitrile	880	U
75650	tert-Butyl alcohol	1600	U
1634044	Methyl-tert-Butyl ether	380	U
108203	Di-isopropyl ether	250	U
75718	Dichlorodifluoromethane	500	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	380	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	380	U
75-69-4	Trichlorofluoromethane	250	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	250	U
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-3	1,1-Dichloroethane	130	U
108-05-4	Vinyl Acetate	380	U
78-93-3	2-Butanone	380	U
	cis-1,2-Dichloroethene	130	U
67-66-3	Chloroform	130	U
75-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	250	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	130	U
78-87-5	1,2-Dichloropropane	130	U
75-27-4	Bromodichloromethane	130	U
110-75-8	2-Chloroethyl vinyl ether	250	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	250	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	250	U
126-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	250	U

1A

FIELD ID.

VOLATILE ORGANICS ANALYSIS DATA SHEET

1104-PX3

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 987

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005056.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 19.56 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
1330-20-7	m+p-Xylenes	380	U
1330-20-7	o-Xylene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-PX3

Lab Name: FMETL NJDEP # 13461

Project: 01-0001 Case No.: 977-1036 Location: Bldg11 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 987

Sample wt/vol: 10.0 (g/ml) G Lab File ID: VC005056.D

Level: (low/med) MED Date Received: 2/21/01

% Moisture: not dec. 19.56 Date Analyzed: 2/26/01

GC Column: Rtx502.2 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	26.97	900	J
2.	unknown hydrocarbon	29.00	1200	J
3.	unknown hydrocarbon	30.89	1100	J
4. 000095-36-3	1,2,4-Trimethylbenzene	31.92	2000	JN
5. 000620-14-4	Benzene, 1-ethyl-3-methyl-	33.03	890	JN
6.	unknown	33.37	1400	J
7.	unknown	33.54	1200	J
8.	unknown	33.66	850	J
9.	unknown hydrocarbon	33.77	990	J
10.	unknown	34.44	960	J

TPHC

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

Client :	U.S. Army DPW. SELFM-PW-EV Bldg. 173 Ft. Monmouth, NJ 07703	**Project # :** **Location :** **UST Reg. # :**	977-990 Bldg.1104
Analysis :	OQA-QAM-025	**Date Received :**	21-Feb-01
Matrix :	Soil	**Date Extracted :**	22-Feb-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	22-Feb-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
977	1104-PX1	**1.00**	15.39	81.97	186	**281.00**
982	1104-PX2	**1.00**	15.81	77.43	192	**ND**
987	1104-PX3	**1.00**	15.07	80.44	194	**4209.87**
988	1104-PX4	**1.00**	15.44	80.45	189	**199.86**
989	1104-PX5	**1.00**	15.30	79.18	194	**ND**
990	1104-PX6	**1.00**	15.06	80.14	195	**ND**
METHOD BLANK	MB-993	**1.00**	15.00	100.00	157	**ND**

ND = Not Detected

MDL = Method Detection Limit

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

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

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

1. Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted ✓
2. Table of Contents submitted ✓
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 3/14/01

Laboratory Certification #13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO# 01-0001

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
1104-PX7/West Wall 7-7.5'	1071	Soil	27-Feb-01 15:10	02/27/01
1104-PX8/Duplicate 7-7.5'	1072	Soil	27-Feb-01 15:30	02/27/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

3-1-01
Daniel Wright/Date
Laboratory Director

Table of Contents

Method Summary

NJDEP Method OQA-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 orbital 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.

TPHC Conformance/Non-conformance Summary Report

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

Additional comments: _____

Laboratory Manager

3-1-01
Date

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil
NJDEP Certification #13461 / NYDOH Certification #11699

Chain of Custody Record

Customer: Dinker Desai
Phone #: X21475
( )DERA (X)OMA UST Assessment

Project No: ~~100004~~ 01-0001
Location: BLDG. 1104
UST# 81533-164

Samplers Name / Company : Frank Accorsi/TVS

Lab Sample I.D.	Sample Location	Depth	Date	Time	Sample Type	# Bottles	TPHC	% SOLIDS	VOA+10 *	VOA ID #	PID Reading	Remarks / Preservation Method
1071	1104-PX7, WEST WALL	7-7.5FT	2-27-01	1510	SOIL	2	X	X	X	2279	5	ICE
1072	1104-PX8, DUPL.	"	↓	1530	"	2	X	X	X	2280	4	↓
	TRIP BLANK	—	↓	—	AQ	1			X	2281	—	↓
												batch 1141/2289
												MB-1083
												LCS-1084
												MS - 1085
												MSD - 1086

* = Samples Kept <4°C

OVM sn#580U-64455.343 was calibrated with zero air & w/ 245 ppm Isobutylene read 245 ppm. 1330 2-27-01 FA (time/date & initial)

Relinquished by (signature):	Date/Time:	Received by (signature):	Comments:
Frank Accorsi	2-27-01 1600		* VOA+10 ON 25% > 1,000 PPM TPH, ON HIGHEST
Relinquished by (signature):	Date/Time:	Received by (signature):	

Report Type: ( )Full, (X)Reduced, ( )Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: ( )Standard 2 wks, (X)Rush 2 Days, ( )ASAP Verbal ___ Hrs.

Remarks: Dedicated Sampling Tools Used
All sample points have been GPS? (X)YES ( )NO ( )NA

000003

print legibly

USTcoc.xls3/21/00

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

Client :	U.S. Army	**Project # :**	1071-1072
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis :	OQA-QAM-025	**Date Received :**	27-Feb-01
Matrix :	Soil	**Date Extracted :**	28-Feb-01
Inst. ID. :	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	28-Feb-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
1071	1104-PX7	**1.00**	15.20	83.24	186	**ND**
1072	1104-PX8	**1.00**	15.23	82.97	186	**ND**
METHOD BLANK	MB-1083	**1.00**	15.00	100.00	157	**ND**

ND = Not Detected

MDL = Method Detection Limit

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001

Calibration Files
100 =T012553.D 50 =T012557.D 20 =T012556.D
10 =T012555.D 5 =T012554.D

	Compound	100	50	20	10	5	Avg		%RSD
1)	tC C8	2.191	2.181	2.146	2.110	1.983	2.122	E4	3.95
2)	tC C10	2.277	2.249	2.152	2.134	2.021	2.167	E4	4.70
3)	TC C12	2.321	2.328	2.344	2.226	2.172	2.278	E4	3.30
4)	tC C14	2.361	2.356	2.370	2.349	2.306	2.349	E4	1.06
5)	tC C16	2.389	2.385	2.402	2.356	2.285	2.364	E4	1.98
6)	tC C18	2.255	2.270	2.272	2.124	1.866	2.157	E4	8.08
7)	tC C20	2.462	2.453	2.441	2.273	2.152	2.356	E4	5.86
8)	tC C22	2.536	2.536	2.585	2.562	2.466	2.537	E4	1.75
9)	tC C24	2.560	2.559	2.587	2.540	2.518	2.553	E4	1.00
10)	tC C26	2.566	2.568	2.578	2.535	2.503	2.550	E4	1.20
11)	tC C28	2.574	2.563	2.561	2.501	2.454	2.531	E4	2.03
12)	tC C30	2.683	2.652	2.624	2.662	2.308	2.586	E4	6.06
13)	tC C32	2.622	2.579	2.562	2.521	2.479	2.553	E4	2.15
14)	tC C34	2.618	2.572	2.567	2.519	2.453	2.546	E4	2.47
15)	tC C36	2.593	2.556	2.556	2.474	2.386	2.513	E4	3.30
16)	tC C38	2.598	2.573	2.547	2.491	2.483	2.538	E4	1.98
17)	tC C40	2.419	2.409	2.392	2.346	2.262	2.365	E4	2.72
18)	tC c42	2.471	2.458	2.441	2.432	2.382	2.437	E4	1.41
19)	TC Pristane	2.506	2.365	2.712	2.789	2.667	2.608	E4	6.54
20)	TC Phytane	2.561	2.573	2.667	2.728	2.842	2.674	E4	4.36
21)	sC o-terphenyl	2.868	2.867	2.910	2.886	2.891	2.885	E4	0.62
22)	tC TPHC - total	2.751	2.810	2.967	3.223	3.880	3.126	E4	14.69

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010228\T012715.D Vial: 1
Acq On : 28 Feb 2001 9:24 am Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	tC	C8	21.220	20.292 E3	4.4	93	0.02
2	tC	C10	21.666	22.085 E3	-1.9	98	0.00
3	TC	C12	22.781	22.872 E3	-0.4	98	0.00
4	tC	C14	23.486	23.496 E3	-0.0	100	0.00
5	tC	C16	23.635	23.839 E3	-0.9	100	0.00
6	tC	C18	21.574	23.044 E3	-6.8	102	0.00
7	tC	C20	23.563	24.612 E3	-4.5	100	0.00
8	tC	C22	25.370	25.601 E3	-0.9	101	0.00
9	tC	C24	25.529	25.861 E3	-1.3	101	0.00
10	tC	C26	25.501	25.988 E3	-1.9	101	0.00
11	tC	C28	25.307	26.033 E3	-2.9	102	0.00
12	tC	C30	25.857	27.026 E3	-4.5	102	0.00
13	tC	C32	25.526	26.638 E3	-4.4	103	0.00
14	tC	C34	25.459	26.788 E3	-5.2	104	0.00
15	tC	C36	25.129	26.720 E3	-6.3	105	0.00
16	tC	C38	25.384	26.903 E3	-6.0	105	0.00
17	tC	C40	23.655	25.010 E3	-5.7	104	0.00
18	tC	C42	24.370	25.236 E3	-3.6	103	0.00
19	TC	Pristane	26.077	25.695 E3	1.5	109	0.00
20	TC	Phytane	26.741	26.213 E3	2.0	102	0.00
21	sC	o-terphenyl	28.847	29.076 E3	-0.8	101	0.00
22	tC	TPHC - total	31.263	33.037 E3	-5.7	118	0.49

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010228\T012715.D Vial: 1
Acq On : 28 Feb 2001 9:24 am Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 9:52 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Initial Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
21)	sC o-terphenyl	12.49	1453786	50.397 mg/L
Spiked Amount	10.000 Range	8 - 13	Recovery =	503.97%#
	Target Compounds			
1)	tC C8	3.71	1014587	47.814 mg/L
2)	tC C10	7.17	1104231	50.967 mg/L
3)	TC C12	8.86	1143613	50.201 mg/L
4)	tC C14	10.05	1174804	50.022 mg/L
5)	tC C16	11.06	1191951	50.431 mg/L
6)	tC C18	11.52	1152199	53.408 mg/L m
7)	tC C20	11.95	1230620	52.226 mg/L m
8)	tC C22	12.77	1280041	50.454 mg/L
9)	tC C24	13.52	1293046	50.651 mg/L
10)	tC C26	14.20	1299392	50.955 mg/L
11)	tC C28	14.84	1301628	51.433 mg/L
12)	tC C30	15.43	1351302	52.261 mg/L
13)	tC C32	16.05	1331913	52.179 mg/L
14)	tC C34	16.80	1339415	52.611 mg/L
15)	tC C36	17.78	1336019	53.167 mg/L
16)	tC C38	19.13	1345175	52.993 mg/L
17)	tC C40	21.01	1250516	52.865 mg/L
18)	tC c42	23.70	1261824	51.779 mg/L
19)	TC Pristane	11.54	1284732	49.266 mg/L m
20)	TC Phytane	12.00	1310651	49.012 mg/L m
22)	tC TPHC - total	12.49	33037135	1056.744 mg/L m

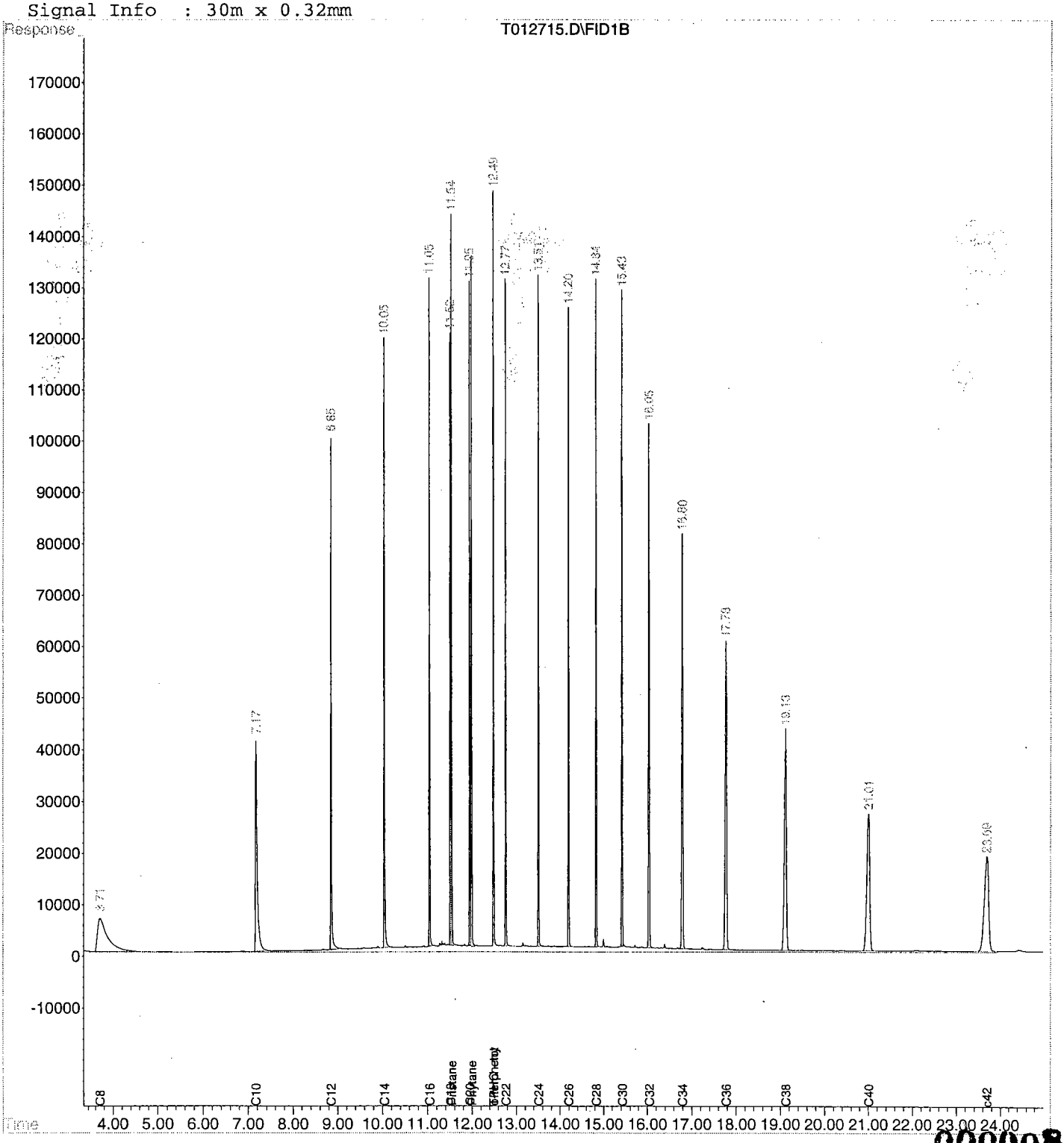
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010228\T012715.D Vial: 1
Acq On : 28 Feb 2001 9:24 am Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 9:52 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010228\T012722.D Vial: 8
Acq On : 28 Feb 2001 1:22 pm Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E

Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	tC	C8	21.220	20.958 E3	1.2	96	0.03
2	tC	C10	21.666	23.157 E3	-6.9	103	0.00
3	TC	C12	22.781	24.041 E3	-5.5	103	0.00
4	tC	C14	23.486	24.574 E3	-4.6	104	0.00
5	tC	C16	23.635	25.110 E3	-6.2	105	0.00
6	tC	C18	21.574	24.102 E3	-11.7	106	0.00
7	tC	C20	23.563	25.806 E3	-9.5	105	0.00
8	tC	C22	25.370	26.860 E3	-5.9	106	0.00
9	tC	C24	25.529	27.130 E3	-6.3	106	0.00
10	tC	C26	25.501	27.225 E3	-6.8	106	0.00
11	tC	C28	25.307	27.285 E3	-7.8	106	0.00
12	tC	C30	25.857	28.666 E3	-10.9	108	0.00
13	tC	C32	25.526	27.850 E3	-9.1	108	0.00
14	tC	C34	25.459	28.027 E3	-10.1	109	0.00
15	tC	C36	25.129	27.933 E3	-11.2	109	0.00
16	tC	C38	25.384	28.245 E3	-11.3	110	0.00
17	tC	C40	23.655	26.479 E3	-11.9	110	0.01
18	tC	c42	24.370	27.515 E3	-12.9	112	0.00
19	TC	Pristane	26.077	26.257 E3	-0.7	111	0.00
20	TC	Phytane	26.741	27.429 E3	-2.6	107	0.00
21	sC	o-terphenyl	28.847	30.419 E3	-5.4	106	0.00
22	tC	TPHC - total	31.263	29.143 E3	6.8	104	0.49

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010228\T012722.D Vial: 8
Acq On : 28 Feb 2001 1:22 pm Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 14:06 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Initial Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
21)	sC o-terphenyl	12.49	1520957	52.726 mg/L
	Spiked Amount 10.000 Range 8 - 13		Recovery = 527.26%#	
	Target Compounds			
1)	tC C8	3.72	1047900	49.384 mg/L
2)	tC C10	7.18	1157862	53.442 mg/L
3)	TC C12	8.86	1202056	52.766 mg/L
4)	tC C14	10.05	1228687	52.316 mg/L
5)	tC C16	11.06	1255485	53.119 mg/L
6)	tC C18	11.52	1205118	55.861 mg/L m
7)	tC C20	11.95	1290315	54.759 mg/L m
8)	tC C22	12.77	1342992	52.935 mg/L
9)	tC C24	13.52	1356487	53.136 mg/L
10)	tC C26	14.20	1361237	53.381 mg/L
11)	tC C28	14.84	1364243	53.908 mg/L
12)	tC C30	15.43	1433280	55.431 mg/L
13)	tC C32	16.05	1392492	54.553 mg/L
14)	tC C34	16.80	1401370	55.044 mg/L
15)	tC C36	17.78	1396651	55.579 mg/L
16)	tC C38	19.13	1412254	55.635 mg/L
17)	tC C40	21.02	1323950	55.970 mg/L
18)	tC c42	23.70	1375741	56.453 mg/L m
19)	TC Pristane	11.54	1312845	50.344 mg/L m
20)	TC Phytane	12.00	1371464	51.286 mg/L m
22)	tC TPHC - total	12.49	29143025	932.185 mg/L m

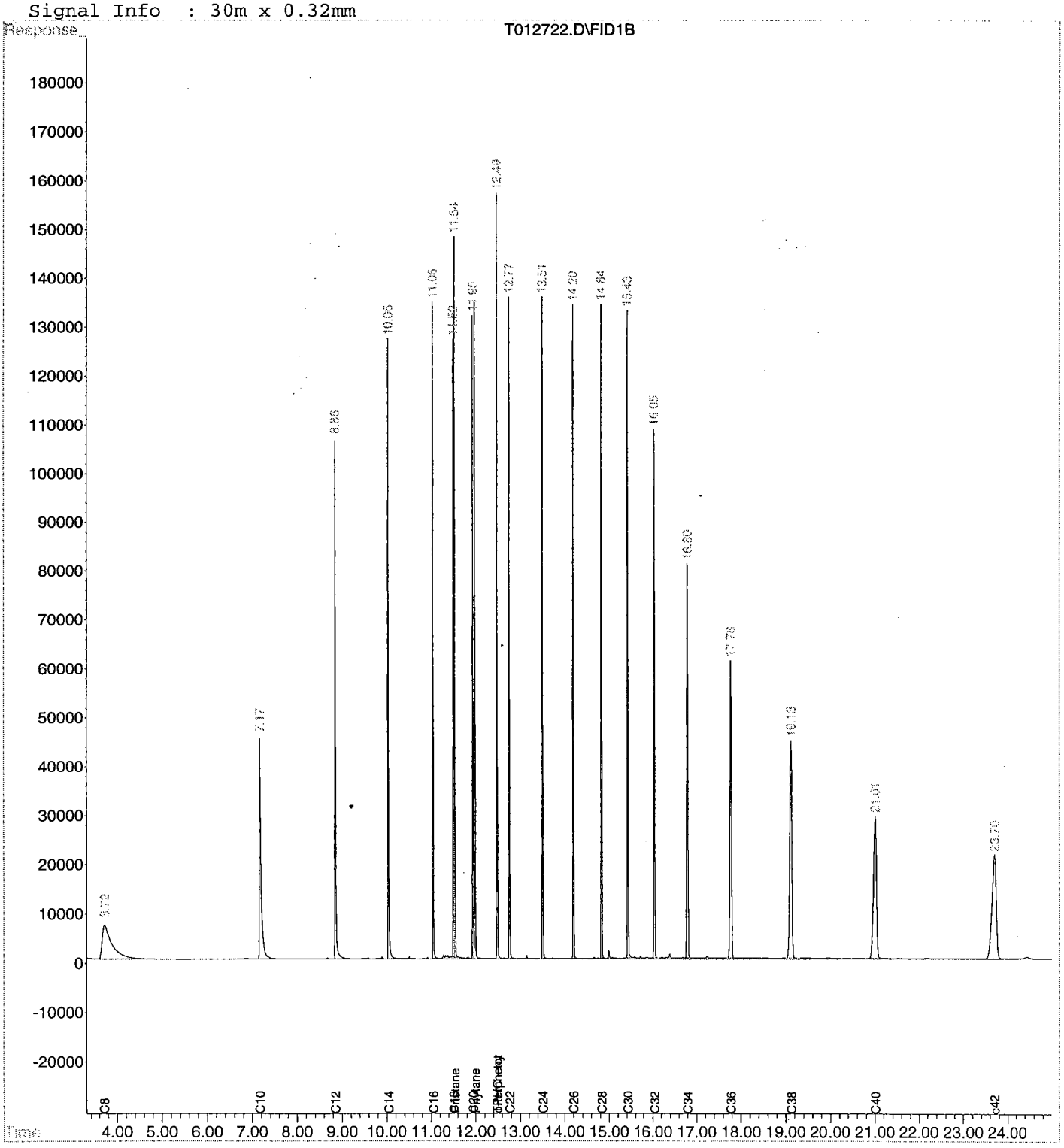
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010228\T012722.D Vial: 8
Acq On : 28 Feb 2001 1:22 pm Operator: BPatel
Sample : Tstd050 Inst : GC/MS Ins
Misc : 50 PPM STD Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 14:06 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



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

Client :	U.S. Army	**Project # :**	1071-1072
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	27-Feb-01
Matrix:	Soil	**Date Extracted :**	28-Feb-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	28-Feb-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1071			10.00	9.28	**92.82**
1072			10.00	10.04	**100.41**
METHOD BLANK	MB-1083		10.00	9.81	**98.05**

Surrogate Added : **o-Terphenyl**

Matrix Spike/ Duplicate Recovery Report
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	**Project # :**	1071-1072
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	27-Feb-01
Matrix:	Soil	**Date Extracted :**	28-Feb-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	28-Feb-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1085-MS	1000	0.00	875.28	87.53	75-125
1086-MSD	1000	0.00	894.63	89.46	75-125
			RPD	**2.19**	**20.00**

Quality Control Check Standard Summary
U.S.Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	**Project # :**	1071-1072
	DPW. SELFM-PW-EV	**Location :**	Bldg.1104
	Bldg. 173	**UST Reg. # :**	81533-164
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	**Date Received :**	27-Feb-01
Matrix:	Soil	**Date Extracted :**	28-Feb-01
Inst. ID.	GC TPHC INST. #1	**Extraction Method :**	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	**Analysis Complete :**	28-Feb-01
Injection Volume :	1uL	**Analyst :**	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-1084	28-Feb-01	1000	875.08	87.51	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010228\T012716.D Vial: 2
Acq On : 28 Feb 2001 9:58 am Operator: BPatel
Sample : MB-1083 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 10:33 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Initial Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.49	282838	9.805 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	98.05%#
Target Compounds			

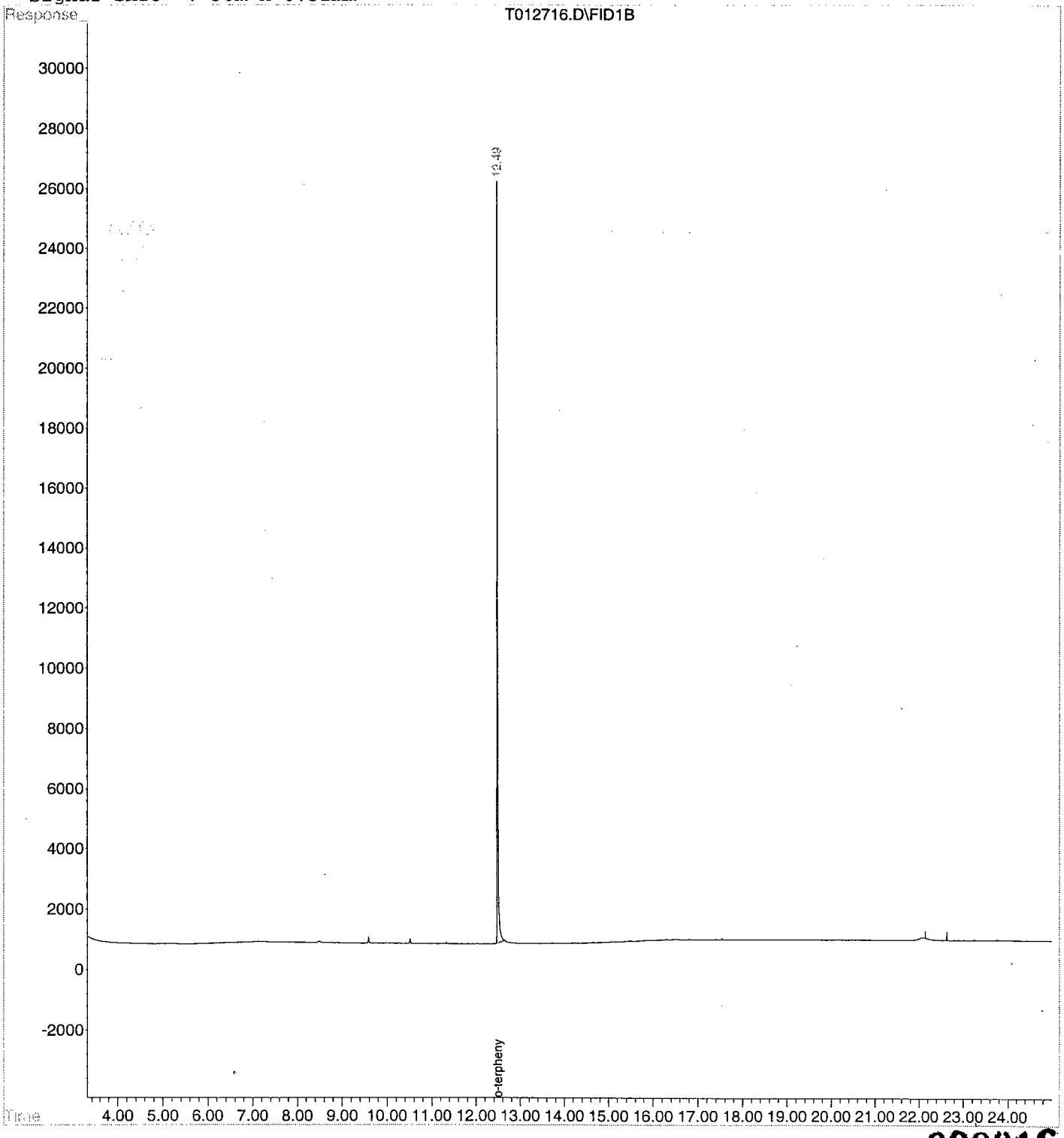
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010228\T012716.D Vial: 2
Acq On : 28 Feb 2001 9:58 am Operator: BPatel
Sample : MB-1083 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 10:33 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010228\T012718.D Vial: 4
Acq On : 28 Feb 2001 11:06 am Operator: BPatel
Sample : 1071s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 12:55 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Initial Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.49	267748	9.282 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	92.82%#
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

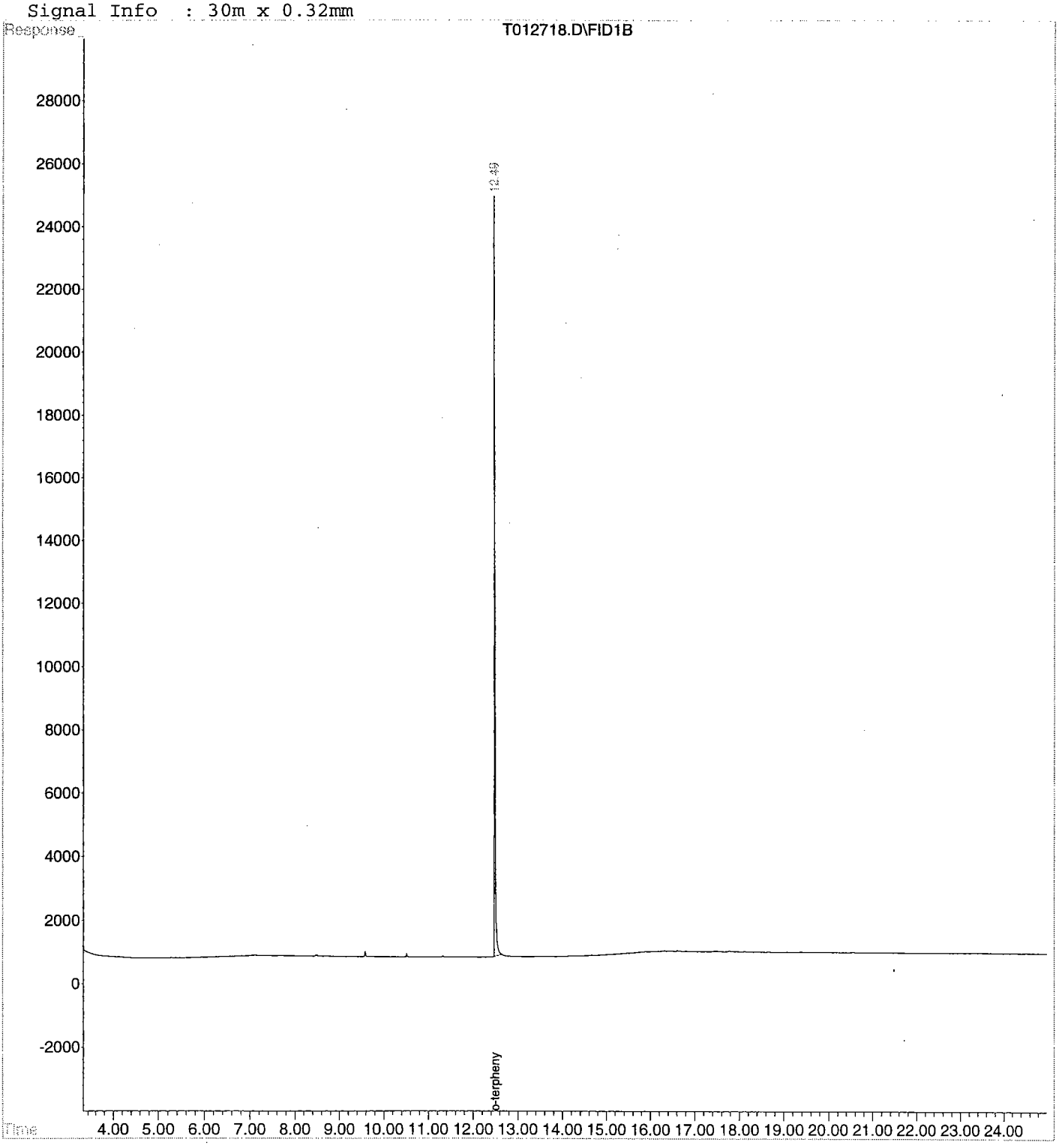
000017

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010228\T012718.D Vial: 4
Acq On : 28 Feb 2001 11:06 am Operator: BPatel
Sample : 1071s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 12:55 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



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Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010228\T012721.D Vial: 7
Acq On : 28 Feb 2001 12:48 pm Operator: BPatel
Sample : 1072s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 13:14 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Initial Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.49	289662	10.041 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery = 100.41%#	
Target Compounds			

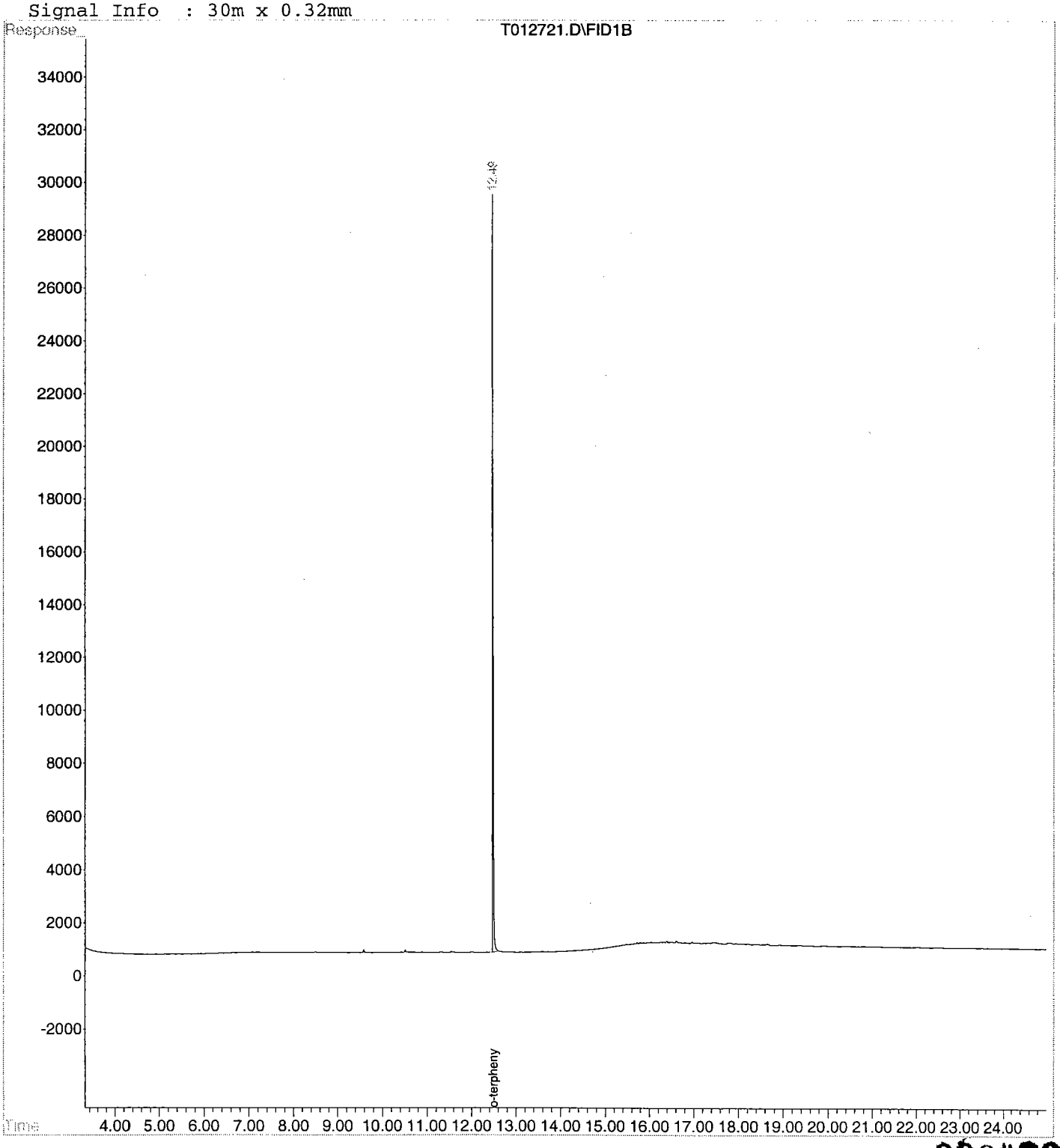
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010228\T012721.D Vial: 7
Acq On : 28 Feb 2001 12:48 pm Operator: BPatel
Sample : 1072s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Feb 28 13:14 2001 Quant Results File: TPH85.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH85.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Fri Feb 02 11:34:54 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH85.M

Volume Inj. : 1 ul
Signal Phase : HP-5
Signal Info : 30m x 0.32mm



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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 3/6/01

Laboratory Certification #13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

APPENDIX F

GROUNDWATER ANALYTICAL DATA PACKAGE

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO # 00-0004

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	5766.01	Methanol	04-Oct-00	10/04/00
Field Blank	5766.02	Aqueous	04-Oct-00 09:20	10/04/00
1104-1 86"	5766.03	Soil	04-Oct-00 10:50	10/04/00
1104-2 92"	5766.04	Soil	04-Oct-00 11:20	10/04/00
1104-3 78"	5766.05	Soil	04-Oct-00 11:50	10/04/00
1104-4 80"	5766.06	Soil	04-Oct-00 13:15	10/04/00
1104-5 78"	5766.07	Soil	04-Oct-00 13:50	10/04/00
1104-6 80"	5766.08	Soil	04-Oct-00 14:20	10/04/00
1104-7 86"	5766.09	Soil	04-Oct-00 15:05	10/04/00
Field Duplicate	5766.10	Soil	04-Oct-00	10/04/00
1104-GW 120-12'	5766.11	Aqueous	04-Oct-00 15:30	10/04/00

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15, TPHC, % SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

10-24-00
Daniel Wright/Date
Laboratory Director

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
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ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
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1104-2 92"	5766.04	Soil	04-Oct-00 11:20	10/04/00
1104-3 78"	5766.05	Soil	04-Oct-00 11:50	10/04/00
1104-4 80"	5766.06	Soil	04-Oct-00 13:15	10/04/00
1104-5 78"	5766.07	Soil	04-Oct-00 13:50	10/04/00
1104-6 80"	5766.08	Soil	04-Oct-00 14:20	10/04/00
1104-7 86"	5766.09	Soil	04-Oct-00 15:05	10/04/00
Field Duplicate	5766.10	Soil	04-Oct-00	10/04/00
1104-GW 120-12'	5766.11	Aqueous	04-Oct-00 15:30	10/04/00

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15, TPHC, % SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

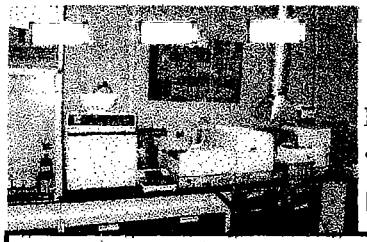
10-24-00

Daniel Wright/Date
Laboratory Director

Table of Contents

CHAIN OF CUSTODY

000001



Fort Monmouth Environmental Testing Laboratory

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

Chain of Custody Record

Customer: B. FINCH / D. DESAI
Phone #: X21475
( )DERA (✓)OMA ( )Other:_____
Project No: 00-0004
Location: BLDG. 1104 U.S.T.
Samplers Name / Company: MARK LAURA - TVS - PWS 07

Lab Sample I.D.		Sample Location	Date	Time	Sample Type	# bottles	VOA+15	BN+15	TPHC	% SOLIDS			PID ppm	FID ppm	Remarks / Preservation Method
5766	1	TRIP BLANK	10-4-00	—	METH.	1	X						—	—	V002095 <4°C
	2	FIELD BLANK	"	0920	AQ.	3	X	X					—	—	HCL, <4°C
	3	1104-1 86"	"	1050	soil	2	X		X	X			61	30	V002096 " , "
	4	1104-2 92"	"	1120	"	2	X		X	X			115	50.27	V002097 " , "
	5	1104-3 78"	"	1150	"	2	X		X	X			5.16	24.17	V002098 " , "
	6	1104-4 80"	"	@1315	"	2	X		X	X			20.07	20.03	V002099 " , "
	7	1104-5 78"	"	1350	"	2	X		X	X			6.07	60.27	V002100 " , "
1	8	1104-6 80"	"	1420	"	2	X		X	X			18.06	20.00	V002101 " , "
	9	1104-7 86"	"	1505	"	2	X		X	X			8.93	7.65	V002102 " , "
	10	F.D.	"	—	"	2	X		X	X			—	—	V002108 " , "
	11	1104-GW 10-12'	"	1530	AQ.	3	X	X					—	—	" , "

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
	10400 / 1550				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD
Turnaround time: (X)Standard 3 wks, (X)Rush 1 WK Days, ( )ASAP Verbal ____ Hrs.

Remarks: DENSE CLAYEY SILT LAYER FROM 93-96" — DRY — 0 PPM @ 96"

print legibly

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METHODOLOGY SUMMARY

Methodology Summary

EPA Method 624
Gas Chromatographic Determination of Volatiles in Water

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

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

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

Method Summary

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

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

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

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

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

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

CONFORMANCE NON-COMFORMANCE SUMMARY

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 (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	Yes
a. VOA Fraction_____	
b. B/N Fraction_____	
c. Acid Fraction NA	

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

Indicate
Yes, No, N/A

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

    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: 10-24-06

TPHC CONFORMANCE/NON – CONFORMANCE SUMMARY REPORT

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

Additional comments: _____

Laboratory Manager: _____ Date: 10-24-00

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 5766 **Site:** Bldg. 1104

	Date	Hold Time
Date Sampled	10/04/00	NA
Receipt/Refrigeration	10/04/00	NA
Extractions		
1. Base Neutral	10/05/00	14 days
2. TPHC	10/05/00	14 days
Analyses		
1. Volatile Organics	10/10,11/00	14 days
2. Base Neutral	10/05/00	40 days
3. TPHC	10/06/00	40 days

Field Duplicate performed on 5766.08 (Field ID 1104-6 80").

VOLATILE ORGANICS

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

Data File	**VC004085.D**	Sample Name	**Vblk115**
Operator	**Skelton**	Field ID	**Vblk115**
Date Aquired	**10-Oct-00**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

10/19/00 9:53 AM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Vblk115

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: Vblk115

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004085.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. Date Analyzed: 10/10/00

GC Column: Rtx502.2 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

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

Data File	**VC004103.D**	Sample Name	**5766.02**
Operator	**Skelton**	Field ID	**Field Blank**
Date Aquired	**11-Oct-00**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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
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10/19/00 9:53 AM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

Field Blank

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 5766.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004103.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. Date Analyzed: 10/11/00

GC Column: Rtx502.2 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

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

Data File	**VC004104.D**	Sample Name	**5766.11**
Operator	**Skelton**	Field ID	**1104-GW**
Date Aquired	**11-Oct-00**	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	11.93	809535	4.28 ug/L	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	8.90	494159	11.22 ug/L	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	
75-34-3	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	15.26	161671	3.87 ug/L	300	0.62 ug/L	
156594	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	18.62	4427815	12.79 ug/L	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	23.63	549652	1.61 ug/L	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	27.46	10673918	27.71 ug/L	700	0.65 ug/L	
1330-20-7	m+p-Xylenes	27.65	7112264	45.37 ug/L	nle	1.14 ug/L	
1330-20-7	o-Xylene	28.75	2116896	7.48 ug/L	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

10/19/00 9:53 AM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID.

1104-GW

Lab Name: FMETL NJDEP # 13461

Project: 000004 Case No.: 5766 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 5766.11

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004104.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: not dec. Date Analyzed: 10/11/00

GC Column: Rtx502.2 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: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000103-65-1	Benzene, propyl-	30.61	32	JN
2. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.88	44	JN
3. 000526-73-8	Benzene, 1,2,3-trimethyl-	31.92	130	JN
4. 000526-73-8	Benzene, 1,2,3-trimethyl-	33.03	110	JN
5. 000496-11-7	Indane	33.76	88	JN
6.	unknown	34.17	33	J
7.	unknown	34.25	27	J
8.	unknown	34.44	51	J
9. 001560-06-1	Benzene, 2-butenyl-	34.73	31	JN
10.	unknown	34.94	58	J

SEMIVOLATILE ORGANICS

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04550.D**	Sample Name	**Sblk426**
Operator	**Bhaskar**	Misc Info	**Sblk426 A 001005**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04550.D**	Sample Name	**Sblk426**
Operator	**Bhaskar**	Misc Info	**Sblk426 A 001005**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **Sblk426**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: Bl.1104 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: Sblk426

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04550.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	6.82	6	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04554.D**	Sample Name	**5766.02**
Operator	**Bhaskar**	Misc Info	**Field Blank**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04554.D**	Sample Name	**5766.02**
Operator	**Bhaskar**	Misc Info	**Field Blank**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **Field Blank**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: Bl.1104 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 5766.02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04554.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04555.D**	Sample Name	**5766.11**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene	13.21	1500026	38.25 ug/L	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene	14.96	11218818	442.85 ug/L	NLE	0.55	ug/L	E
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene	17.65	521308	26.53 ug/L	400	0.62	ug/L	
132-64-9	Dibenzofuran	18.02	683085	23.67 ug/L	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene	18.81	1280206	56.36 ug/L	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine	19.10	555424	34.71 ug/L	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene	20.91	3361909	98.19 ug/L	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene	23.38	105319	2.78 ug/L	300	1.48	ug/L	

000100

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04555.D**	Sample Name	**5766.11**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**5-Oct-00**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene	23.83	692304	11.31 ug/L	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate	25.24	105063	3.91 ug/L	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	26.42	146426	3.85 ug/L	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04556.D**	Sample Name	**5766.11 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**6-Oct-00**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	15.40	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	6.90	ug/L	
62-53-3	Aniline			not detected	NLE	18.50	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	6.30	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	6.20	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	5.80	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	6.20	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	6.50	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	5.70	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	6.40	ug/L	
67-72-1	Hexachloroethane			not detected	10	3.40	ug/L	
98-95-3	Nitrobenzene			not detected	10	5.10	ug/L	
78-59-1	Isophorone			not detected	100	4.50	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	4.80	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	5.40	ug/L	
91-20-3	Naphthalene	13.18	267496	44.68 ug/L	NLE	7.20	ug/L	D
106-47-8	4-Chloroaniline			not detected	NLE	17.80	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	4.30	ug/L	
91-57-6	2-Methylnaphthalene	14.85	2396380	619.52 ug/L	NLE	5.50	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	7.60	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	5.30	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	10.40	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	10.40	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	7.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	9.20	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	19.30	ug/L	
83-32-9	Acenaphthene	17.57	120995	37.15 ug/L	400	6.20	ug/L	D
132-64-9	Dibenzofuran	17.94	136824	28.60 ug/L	NLE	7.30	ug/L	D
121-14-2	2,4-Dinitrotoluene			not detected	10	14.10	ug/L	
84-66-2	Diethylphthalate			not detected	5000	15.40	ug/L	
86-73-7	Fluorene	18.73	272489	72.38 ug/L	300	9.80	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	8.60	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	29.60	ug/L	
86-30-6	n-Nitrosodiphenylamine	19.02	127668	46.42 ug/L	20	14.40	ug/L	D
103-33-3	Azobenzene			not detected	NLE	10.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	12.80	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	10.80	ug/L	
85-01-8	Phenanthrene	20.82	704055	119.64 ug/L	NLE	17.30	ug/L	D
120-12-7	Anthracene			not detected	2000	18.50	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	24.90	ug/L	
206-44-0	Fluoranthene			not detected	300	14.80	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04556.D**	Sample Name	**5766.11 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104-GW**
Date Acquired	**6-Oct-00**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	21.50	ug/L	
129-00-0	Pyrene			not detected	200	15.30	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	12.40	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	26.80	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	16.00	ug/L	
218-01-9	Chrysene			not detected	20	11.40	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	13.40	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	14.40	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	13.20	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	11.50	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	24.30	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	22.40	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	19.40	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	20.40	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **1104-GW**

Lab Name: FMETL Lab Code 13461

Project: 00-0004 Case No.: 5766 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 5766.11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04555.D

Level: (low/med) LOW Date Received: 10/4/00

% Moisture: decanted: (Y/N) N Date Extracted: 10/5/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/5/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 14 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	9.14	40	J
2.		unknown	9.70	76	J
3.	000108-67-8	Benzene, 1,3,5-trimethyl-	9.88	110	JN
4.		unknown	10.31	40	J
5.	000620-14-4	Benzene, 1-ethyl-3-methyl-	10.43	64	JN
6.	001678-93-9	Cyclohexane, butyl-	10.54	17	JN
7.	000496-11-7	Indane	10.68	42	JN
8.	000000-00-0	1-Ethyl-2,2,6-trimethylcyclohexan	10.79	23	JN
9.		unknown	10.98	22	J
10.	013151-34-3	Decane, 3-methyl-	11.15	48	JN
11.	001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	11.36	25	JN
12.	000573-98-8	Naphthalene, 1,2-dimethyl-	17.04	59	JN
13.	002131-42-2	Naphthalene, 1,4,6-trimethyl-	17.82	40	JN
14.		unknown	19.18	71	J

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT:IJO# 01-0001

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
1104-4.6'	271	Aqueous	18-Jan-01 14:20	01/18/01

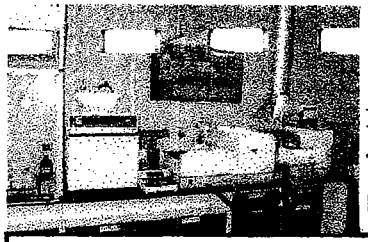
ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, BN+15

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

2-7-01
Daniel Wright/Date
Laboratory Director

Table of Contents

CHAIN OF CUSTODY



Fort Monmouth Environmental Testing Laboratory

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

Chain of Custody Record

Customer: D. DESAI
Phone #: 532-4375
( )DERA ( )OMA ( )Other:_____

Project No: 01-0001
Location: BLDG. 1104

Samplers Name / Company: MARK LAUCA - TVS - PWS07

Lab Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: VOA + 15	Analysis Parameters: BN + 15	Remarks / Preservation Method
271	1104 - 4.6'	1-18-01	1420	AQ.	3	X	X	4°C, HCL
		"						

Comments:

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
[signature]	1-18-01 1435	[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, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: HEAVY FUEL ODOR — SHARED T.B. / F.B. W/BLDG. 173 SAME DAY

print legibly

Coc.xls9/6/99

METHODOLOGY SUMMARY

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

CONFORMANCE/NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate Yes, No, N/A

1. Chromatograms 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 — NO

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

   a. VOA Fraction _____
   b. B/N Fraction NBZ at 29
   c. Acid Fraction NA

   If not met, were the calculations checked and the results qualified as "estimated"? — yes
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) — yes

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

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

Indicate
Yes, No, N/A

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

    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: 2-7-01

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 271

Site: Bldg. 1104

		Date	Hold Time
Date Sampled		01/18/01	NA
Receipt/Refrigeration		01/18/01	NA
Extractions			
1. BN		01/22/01	7 days
Analyses			
1. Volatile Organics	1/19,20,23/01		14 days
2. BN	01/25/01		40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	**:**	**Method Detection Limit**
J	**:**	**Compound identified below detection limit**
B	**:**	**Compound found in blank**
D	**:**	**Results are from a dilution of the sample**
U	**:**	**Compound searched for but not detected**
E	**:**	**Compound exceeds calibration limit**
PQL	**:**	**Practical Quantitation Limit**
NLE	**:**	**No limit established**
RT	**:**	**Retention time**

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

Data File	VC004743.D	Sample Name	MB
Operator	Skelton	Field ID	MB
Date Aquired	19-Jan-01	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

2/2/01 2:00 PM

D:\HPCHEM\Custrpt\Volatile\624fy00.crt

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 010119**

Lab Name: FMETL NJDEP#: 13461

Project: 010001 Case No.: 271 Location: 1104 SDG No.:

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

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004743.D

Level: (low/med) LOW Date Received: 1/18/01

% Moisture: not dec. Date Analyzed: 1/19/01

GC Column: RTX502. 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

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

Data File	**VC004782.D**	Sample Name	**MB**
Operator	**Skelton**	Field ID	**MB**
Date Aquired	**23-Jan-01**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 010123**

Lab Name: FMETL NJDEP#: 13461

Project: 010001 Case No.: 271 Location: 1104 SDG No.: _____

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

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004782.D

Level: (low/med) LOW Date Received: 1/18/01

% Moisture: not dec. _____ Date Analyzed: 1/23/01

GC Column: RTX502. 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

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

Data File	**VC004768.D**	Sample Name	**271**
Operator	**Skelton**	Field ID	**Bldg1104**
Date Aquired	**20-Jan-01**	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	11.85	823956	7.86 ug/L	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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	18.61	30750158	126.40 ug/L	1	0.23 ug/L	E
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	23.62	541346	2.33 ug/L	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	27.46	10608168	38.75 ug/L	700	0.65 ug/L	
1330-20-7	m+p-Xylenes	27.65	2530602	27.33 ug/L	nle	1.14 ug/L	
1330-20-7	o-Xylene	28.75	1143529	6.26 ug/L	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

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

Data File	**VC004785.D**	Sample Name	**271**
Operator	**Skelton**	Field ID	**Bldg1104**
Date Aquired	**23-Jan-01**	Multiplier	**5**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifier
107028	Acrolein			not detected	50	9.25 ug/L	
107131	Acrylonitrile			not detected	50	13.90 ug/L	
75650	tert-Butyl alcohol			not detected	nle	42.60 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.80 ug/L	
108203	Di-isopropyl ether			not detected	nle	1.25 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	8.40 ug/L	
74-87-3	Chloromethane			not detected	30	5.80 ug/L	
75-01-4	Vinyl Chloride			not detected	5	5.30 ug/L	
74-83-9	Bromomethane			not detected	10	5.50 ug/L	
75-00-3	Chloroethane			not detected	nle	5.05 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	2.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	1.20 ug/L	
67-64-1	Acetone			not detected	700	6.80 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	2.30 ug/L	
75-09-2	Methylene Chloride			not detected	2	1.20 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.80 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	0.60 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	3.90 ug/L	
78-93-3	2-Butanone			not detected	300	3.10 ug/L	
156594	cis-1,2-Dichloroethene			not detected	10	0.85 ug/L	
67-66-3	Chloroform			not detected	6	1.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	1.15 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	2.35 ug/L	
71-43-2	Benzene	18.60	9718041	129.15 ug/L	1	1.15 ug/L	D
107-06-2	1,2-Dichloroethane			not detected	2	0.90 ug/L	
79-01-6	Trichloroethene			not detected	1	1.15 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	2.00 ug/L	
75-27-4	Bromodichloromethane			not detected	1	2.75 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	3.25 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	3.45 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	2.95 ug/L	
108-88-3	Toluene			not detected	1000	1.85 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	4.35 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	2.40 ug/L	
127-18-4	Tetrachloroethene			not detected	1	1.60 ug/L	
591-78-6	2-Hexanone			not detected	nle	3.55 ug/L	
126-48-1	Dibromochloromethane			not detected	10	4.30 ug/L	
108-90-7	Chlorobenzene			not detected	4	1.95 ug/L	
100-41-4	Ethylbenzene	27.46	2388952	30.95 ug/L	700	3.25 ug/L	D
1330-20-7	m+p-Xylenes	27.65	562370	19.59 ug/L	nle	5.70 ug/L	D
1330-20-7	o-Xylene	28.75	200973	3.54 ug/L	nle	3.10 ug/L	D
100-42-5	Styrene			not detected	100	2.80 ug/L	
75-25-2	Bromoform			not detected	4	3.50 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	2.35 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.75 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.85 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	3.20 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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **Bldg1104**

Lab Name: FMETL NJDEP#: 13461

Project: 010001 Case No.: 271 Location: 1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 271

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC004768.D

Level: (low/med) LOW Date Received: 1/18/01

% Moisture: not dec. Date Analyzed: 1/20/01

GC Column: RTX502. 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: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000098-82-8	Benzene, (1-methylethyl)-	29.62	38	JN
2. 000103-65-1	Benzene, propyl-	30.61	50	JN
3. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.88	39	JN
4. 000108-67-8	Benzene, 1,3,5-trimethyl-	31.91	36	JN
5. 000108-67-8	Benzene, 1,3,5-trimethyl-	33.03	130	JN
6. 000135-01-3	Benzene, 1,2-diethyl-	33.37	29	JN
7. 000300-57-2	Benzene, 2-propenyl-	33.76	120	JN
8. 000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	34.43	53	JN
9. 000768-49-0	Benzene, (2-methyl-1-propenyl)-	34.73	34	JN
10. 027133-93-3	2,3-Dihydro-1-methylindene	34.94	68	JN

BASE NEUTRALS

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04874.D**	Sample Name	**MB-284**
Operator	**Bhaskar**	Misc Info	**MB-010122**
Date Acquired	**25-Jan-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04874.D**	Sample Name	**MB-284**
Operator	**Bhaskar**	Misc Info	**MB-010122**
Date Acquired	**25-Jan-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **MB-284**

Lab Name: FMETL Lab Code 13461

Project: 01-0001 Case No.: 271 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB-284

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04874.D

Level: (low/med) LOW Date Received: 1/18/01

% Moisture: decanted: (Y/N) N Date Extracted: 1/22/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/25/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.11	11	J

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04889.D**	Sample Name	**271**
Operator	**Bhaskar**	Misc Info	**1104**
Date Acquired	**25-Jan-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene	11.88	67418	2.62 ug/L	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene	13.50	2310637	41.04 ug/L	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene	15.21	19299370	430.43 ug/L	NLE	0.55	ug/L	E
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene	17.82	1472816	31.34 ug/L	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.54	ug/L	
86-73-7	Fluorene	19.09	2724009	49.02 ug/L	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene	21.45	6659532	113.19 ug/L	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04889.D**	Sample Name	**271**
Operator	**Bhaskar**	Misc Info	**1104**
Date Acquired	**25-Jan-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene	24.90	497526	12.18 ug/L	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA04890.D**	Sample Name	**271 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104**
Date Acquired	**26-Jan-01**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	15.40	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	6.90	ug/L	
62-53-3	Aniline			not detected	NLE	18.50	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	6.30	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	6.20	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	5.80	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	6.20	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	6.50	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	5.70	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	6.40	ug/L	
67-72-1	Hexachloroethane			not detected	10	3.40	ug/L	
98-95-3	Nitrobenzene			not detected	10	5.10	ug/L	
78-59-1	Isophorone			not detected	100	4.50	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	4.80	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	5.40	ug/L	
91-20-3	Naphthalene	13.50	192301	38.13 ug/L	NLE	7.20	ug/L	D
106-47-8	4-Chloroaniline			not detected	NLE	17.80	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	4.30	ug/L	
91-57-6	2-Methylnaphthalene	15.16	2167514	539.75 ug/L	NLE	5.50	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	7.60	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	5.30	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	10.40	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	10.40	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	7.00	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	9.20	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	19.30	ug/L	
83-32-9	Acenaphthene	17.79	106852	33.24 ug/L	400	6.20	ug/L	D
132-64-9	Dibenzofuran			not detected	NLE	7.30	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	14.10	ug/L	
84-66-2	Diethylphthalate			not detected	5000	15.40	ug/L	
86-73-7	Fluorene	19.04	172391	45.34 ug/L	300	9.80	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	8.60	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	29.60	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	14.40	ug/L	
103-33-3	Azobenzene			not detected	NLE	10.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	12.80	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	10.80	ug/L	
85-01-8	Phenanthrene	21.41	454094	90.14 ug/L	NLE	17.30	ug/L	D
120-12-7	Anthracene			not detected	2000	18.50	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	24.90	ug/L	
206-44-0	Fluoranthene			not detected	300	14.80	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA04890.D**	Sample Name	**271 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104**
Date Acquired	**26-Jan-01**	Sample Multiplier	**10**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	21.50	ug/L	
129-00-0	Pyrene			not detected	200	15.30	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	12.40	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	26.80	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	16.00	ug/L	
218-01-9	Chrysene			not detected	20	11.40	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	13.40	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	14.40	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	13.20	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	11.50	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	24.30	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	22.40	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	19.40	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	20.40	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **1104**

Lab Name: FMETL Lab Code 13461

Project: 01-0001 Case No.: 271 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 271

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA04889.D

Level: (low/med) LOW Date Received: 1/18/01

% Moisture: decanted: (Y/N) N Date Extracted: 1/22/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 1/25/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	12.26	110	J
2.	002958-76-1	Naphthalene, decahydro-2-methyl	12.55	130	JN
3.	000768-49-0	Benzene, (2-methyl-1-propenyl)-	12.68	130	JN
4.	002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	12.85	160	JN
5.	017301-23-4	Undecane, 2,6-dimethyl-	13.62	120	JN
6.	003877-19-8	Naphthalene, 1,2,3,4-tetrahydro-2	13.93	120	JN
7.		unknown	14.14	120	J
8.		unknown	14.50	190	J
9.	001680-51-9	Naphthalene, 1,2,3,4-tetrahydro-6	14.69	120	JN
10.	006682-71-9	1H-Indene, 2,3-dihydro-4,7-dimet	14.90	120	JN
11.	002809-64-5	Naphthalene, 1,2,3,4-tetrahydro-5	15.07	170	JN
12.	000091-57-6	Naphthalene, 2-methyl-	15.46	380	JN
13.	000575-43-9	Naphthalene, 1,6-dimethyl-	16.94	85	JN
14.	001921-70-6	Pentadecane, 2,6,10,14-tetramet	20.05	370	JN
15.	000112-95-8	Eicosane	21.19	240	JN

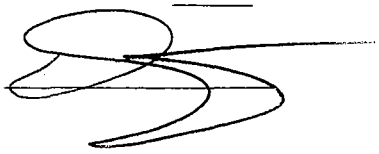
LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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	NA
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 2/7/01

Laboratory Certification #13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461, NYSDOH #11699

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: IJO# 01-0001

Bldg. 1104

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
1104-GW	16070.01	Aqueous	21-Apr-01 08:00	04/21/01

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

5-8-01

Daniel Wright/Date
Laboratory Director

Table of Contents

CHAIN OF CUSTODY

Fort Monmouth Environmental Testing Laboratory

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

Chain of Custody Record

Customer: D. Deasi
Phone #: X21475
( )DERA ( )OMA ( )Other:___________

Project No:
Location: Bldg 1104 1st GW

Samplers Name / Company: Corey McCormack, TVS

Comments: HCL/<4°C

Lims Sample I.D.	Sample Location	Date	Time	Sample Type	# bottles	VO+15 +xylene	BN+15						Hnu Read	Remarks / Preservation Method
14070 .01	1104 GW	4/21/01	0800	AQ	3	✓	✓						0.4	slight odor

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
Corey McCormack	4/23/01 730	[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, ( )EDD
Turnaround time: (X)Standard 3 wks, ( )Rush ____ Days, ( )ASAP Verbal ____ Hrs.

Remarks: Shows T/FAID from 801 see det cm

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Coc.xls2/23/01

0002

METHOD SUMMARY

Method 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 3510/625
Gas Chromatographic Determination of Semi-volatiles in Water

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

CONFORMANCE/ NON-CONFORMANCE

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	
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:	yes
a. VOA Fraction	
b. B/N Fraction Diethylphthalate 4.96 ug/L	
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 (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	yes
a. VOA Fraction	
b. B/N Fraction	
c. Acid Fraction NA	

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

Indicate
Yes, No, N/A

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

    a. VOA Fraction_____
    b. B/N Fraction_____
    c. Acid Fraction N/A

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: [signature] Date: 5-8-01

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 16070

Site: Bldg. 1104

	Date	Hold Time
Date Sampled	04/21/01	NA
Receipt/Refrigeration	04/21/01	NA
Extraction		
1. BN	04/24/01	7 Days
Analyses		
1. BN	04/24/01	40 Days
2. VOA		

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

MDL	**:**	**Method Detection Limit**
J	**:**	**Compound identified below detection limit**
B	**:**	**Compound found in blank**
D	**:**	**Results are from a dilution of the sample**
U	**:**	**Compound searched for but not detected**
E	**:**	**Compound exceeds calibration limit**
PQL	**:**	**Practical Quantitation Limit**
NLE	**:**	**No limit established**
RT	**:**	**Retention time**

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

Data File	**VC005577.D**	Sample Name	**MB 1699**
Operator	**Skelton**	Field ID	**MB 1699**
Date Aquired	**23-Apr-01**	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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	
75-34-3	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	
156594	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

4/24/01 2:22 PM

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **MB 1699**

Lab Name: FMETL NJDEP#: 13461

Project: UST Case No.: 16070 Location: Bldg11 SDG No.: _____

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

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC005577.D

Level: (low/med) LOW Date Received: 4/23/01

% Moisture: not dec. _____ Date Analyzed: 4/23/01

GC Column: RTX502. 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

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

Data File	**VC005585.D**	Sample Name	**1607001**
Operator	**Skelton**	Field ID	**1104GW**
Date Aquired	**23-Apr-01**	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	11.85	588642	4.16 ug/L	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	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	8.88	219058	6.48 ug/L	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	
75-34-3	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	
156594	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	18.61	1121568	4.43 ug/L	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	27.46	2868718	10.93 ug/L	700	0.65 ug/L	
1330-20-7	m+p-Xylenes	27.65	1590766	16.33 ug/L	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

4/24/01 2:22 PM

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID: **1104GW**

Lab Name: FMETL NJDEP#: 13461

Project: UST Case No.: 16070 Location: Bldg11 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1607001

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC005585.D

Level: (low/med) LOW Date Received: 4/23/01

% Moisture: not dec. _____ Date Analyzed: 4/23/01

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

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

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

Number TICs found: 15

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000098-82-8	Benzene, (1-methylethyl)-	29.63	12	JN
2. 000103-65-1	Benzene, propyl-	30.61	19	JN
3. 000611-14-3	Benzene, 1-ethyl-2-methyl-	30.87	29	JN
4. 000095-36-3	1,2,4-Trimethylbenzene	31.91	60	JN
5. 000526-73-8	Benzene, 1,2,3-trimethyl-	33.03	65	JN
6.	unknown	33.37	22	J
7.	unknown	33.55	23	J
8. 000496-11-7	Indane	33.76	46	JN
9.	unknown	34.17	13	J
10.	unknown	34.25	13	J
11.	unknown	34.44	34	J
12.	unknown	34.72	22	J
13. 027133-93-3	2,3-Dihydro-1-methylindene	34.94	44	JN
14.	unknown	35.21	24	J
15.	unknown	35.28	20	J

SEMI-VOLATILES

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA05290.D**	Sample Name	**MB-1700**
Operator	**Bhaskar**	Misc Info	**MB-010424**
Date Acquired	**24-Apr-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.54	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.69	ug/L	
62-53-3	Aniline			not detected	NLE	1.85	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.62	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.58	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.62	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.65	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.64	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.34	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.51	ug/L	
78-59-1	Isophorone			not detected	100	0.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.54	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.72	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.78	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.43	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	0.55	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.76	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.53	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.04	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.04	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.70	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.92	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.93	ug/L	
83-32-9	Acenaphthene			not detected	400	0.62	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.41	ug/L	
84-66-2	Diethylphthalate	18.45	184731	4.96 ug/L	5000	1.54	ug/L	
86-73-7	Fluorene			not detected	300	0.98	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	0.86	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.96	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.44	ug/L	
103-33-3	Azobenzene			not detected	NLE	1.00	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.28	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.08	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.73	ug/L	
120-12-7	Anthracene			not detected	2000	1.85	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	2.49	ug/L	
206-44-0	Fluoranthene			not detected	300	1.48	ug/L	

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA05290.D**	Sample Name	**MB-1700**
Operator	**Bhaskar**	Misc Info	**MB-010424**
Date Acquired	**24-Apr-01**	Sample Multiplier	**1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.15	ug/L	
129-00-0	Pyrene			not detected	200	1.53	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.24	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	2.68	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.60	ug/L	
218-01-9	Chrysene			not detected	20	1.14	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.34	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.32	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.15	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	2.43	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.24	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	1.94	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.04	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **MB-1700**

Lab Name: FMETL Lab Code 13461

Project: LTM Case No.: 16070 Location: Bl.1104 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: MB-1700

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA05290.D

Level: (low/med) LOW Date Received: 4/21/01

% Moisture: _____ decanted: (Y/N) N Date Extracted: 4/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/24/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA05298.D**	Sample Name	**1607001**
Operator	**Bhaskar**	Misc Info	**1104GW**
Date Acquired	**24-Apr-01**	Sample Multiplier	**1.25**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	1.93	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.86	ug/L	
62-53-3	Aniline			not detected	NLE	2.31	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.79	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.78	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.73	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	0.78	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.81	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.71	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80	ug/L	
67-72-1	Hexachloroethane			not detected	10	0.43	ug/L	
98-95-3	Nitrobenzene			not detected	10	0.64	ug/L	
78-59-1	Isophorone			not detected	100	0.56	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.60	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	0.68	ug/L	
91-20-3	Naphthalene			not detected	NLE	0.90	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2.23	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.54	ug/L	
91-57-6	2-Methylnaphthalene	14.86	25332887	853.44 ug/L	NLE	0.69	ug/L	E D
77-47-4	Hexachlorocyclopentadiene			not detected	50	0.95	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	0.66	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.30	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.30	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.88	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.15	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	2.41	ug/L	
83-32-9	Acenaphthene	17.44	1365349	47.97 ug/L	400	0.78	ug/L	D
132-64-9	Dibenzofuran			not detected	NLE	0.91	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.76	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.93	ug/L	
86-73-7	Fluorene	18.69	4476128	139.20 ug/L	300	1.23	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.08	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	3.70	ug/L	
86-30-6	n-Nitrosodiphenylamine	19.02	2977799	139.35 ug/L	20	1.80	ug/L	D
103-33-3	Azobenzene			not detected	NLE	1.25	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.60	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	1.35	ug/L	
85-01-8	Phenanthrene	21.03	11053004	251.47 ug/L	NLE	2.16	ug/L	E D
120-12-7	Anthracene			not detected	2000	2.31	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	3.11	ug/L	
206-44-0	Fluoranthene	23.88	326075	7.08 ug/L	300	1.85	ug/L	D

Semi-Volatile Analysis Report
Page 2

Data File Name	**BNA05298.D**	Sample Name	**1607001**
Operator	**Bhaskar**	Misc Info	**1104GW**
Date Acquired	**24-Apr-01**	Sample Multiplier	**1.25**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	2.69	ug/L	
129-00-0	Pyrene	24.41	1404666	28.80 ug/L	200	1.91	ug/L	D
85-68-7	Butylbenzylphthalate			not detected	100	1.55	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	3.35	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	2.00	ug/L	
218-01-9	Chrysene	27.38	119956	2.75 ug/L	20	1.43	ug/L	D
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.68	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.80	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.65	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.44	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	3.04	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	2.80	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	2.43	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	2.55	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field Id: **1104GW**

Lab Name: FMETL Lab Code 13461

Project: LTM Case No.: 16070 Location: Bl.1104 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 1607001

Sample wt/vol: 800 (g/ml) ML Lab File ID: BNA05298.D

Level: (low/med) LOW Date Received: 4/21/01

% Moisture: decanted: (Y/N) N Date Extracted: 4/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/24/01

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000622-96-8	Benzene, 1-ethyl-4-methyl-	10.26	77	JN
2.	unknown	10.84	82	J
3. 013151-34-3	Decane, 3-methyl-	11.01	58	JN
4. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	11.36	73	JN
5. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	11.70	56	JN
6.	unknown	11.77	88	J
7.	unknown	11.89	140	J
8. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	11.95	89	JN
9.	unknown	12.17	190	J
10.	unknown	12.31	100	J
11.	unknown	12.38	89	J
12. 002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	12.48	180	JN
13.	unknown	12.65	75	J
14.	unknown	13.16	50	J
15. 017301-23-4	Undecane, 2,6-dimethyl-	13.32	100	JN

Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name	**BNA05299.D**	Sample Name	**1607001 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104GW**
Date Acquired	**25-Apr-01**	Sample Multiplier	**12.5**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
110-86-1	Pyridine			not detected	NLE	19.25	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	8.63	ug/L	
62-53-3	Aniline			not detected	NLE	23.13	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	7.88	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	7.75	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	7.25	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	7.75	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	8.13	ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	7.13	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	8.00	ug/L	
67-72-1	Hexachloroethane			not detected	10	4.25	ug/L	
98-95-3	Nitrobenzene			not detected	10	6.38	ug/L	
78-59-1	Isophorone			not detected	100	5.63	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	6.00	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	6.75	ug/L	
91-20-3	Naphthalene			not detected	NLE	9.00	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	22.25	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	5.38	ug/L	
91-57-6	2-Methylnaphthalene	14.76	4697738	1455.26 ug/L	NLE	6.88	ug/L	D
77-47-4	Hexachlorocyclopentadiene			not detected	50	9.50	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	6.63	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	13.00	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	13.00	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	8.75	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	11.50	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	24.13	ug/L	
83-32-9	Acenaphthene	17.35	205094	71.94 ug/L	400	7.75	ug/L	D
132-64-9	Dibenzofuran			not detected	NLE	9.13	ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	17.63	ug/L	
84-66-2	Diethylphthalate			not detected	5000	19.25	ug/L	
86-73-7	Fluorene	18.59	476495	147.95 ug/L	300	12.25	ug/L	D
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	10.75	ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	37.00	ug/L	
86-30-6	n-Nitrosodiphenylamine	18.78	234142	99.37 ug/L	20	18.00	ug/L	D
103-33-3	Azobenzene			not detected	NLE	12.50	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	16.00	ug/L	
118-74-1	Hexachlorobenzene			not detected	10	13.50	ug/L	
85-01-8	Phenanthrene	20.92	1415057	291.97 ug/L	NLE	21.63	ug/L	D
120-12-7	Anthracene			not detected	2000	23.13	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	31.13	ug/L	
206-44-0	Fluoranthene			not detected	300	18.50	ug/L	

Semi-Volatile Analysis Report
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Data File Name	**BNA05299.D**	Sample Name	**1607001 (1:10)**
Operator	**Bhaskar**	Misc Info	**1104GW**
Date Acquired	**25-Apr-01**	Sample Multiplier	**12.5**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL		Qualifiers
92-87-5	Benzidine			not detected	50	26.88	ug/L	
129-00-0	Pyrene	24.35	150092	28.85 ug/L	200	19.13	ug/L	D
85-68-7	Butylbenzylphthalate			not detected	100	15.50	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	33.50	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	20.00	ug/L	
218-01-9	Chrysene			not detected	20	14.25	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	16.75	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	18.00	ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	16.50	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	14.38	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	30.38	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	28.00	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	24.25	ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	25.50	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

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

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 NA
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 5/8/01

Laboratory Certification #13461

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

Laboratory Authentication Statement

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

Daniel K. Wright
Laboratory Manager