

United States Army
Fort Monmouth, New Jersey

**Underground Storage Tank
Closure and Site Investigation
Report**

***Building 208A
Main Post Area***

**NJDEP UST Registration No. 081533-6
NJDEP Closure Approval No. C-93-2614**

January 2002

**UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT**

BUILDING 208A

**MAIN POST AREA
NJDEP UST REGISTRATION NO. 081533-6
NJDEP CLOSURE APPROVAL NO. C-93-2614**

JANUARY 2002

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

PREPARED FOR:

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

PREPARED BY:

**BCM ENGINEERS/
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BURLINGTON, NEW JERSEY 08061**

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EXECUTIVE SUMMARY

UST Closure

On October 19, 1993, a fiberglass underground storage tank (UST) was closed by removal in accordance with Closure Approval No. C-93-2614 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-6 (Fort Monmouth ID No. 208A), was located immediately adjacent to Building 208A in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-6 was a 4,000-gallon No. 2 fuel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

It should be noted that one No. 2 fuel oil UST (UST No. 081533-210) associated with Building 208 was closed by removal from an adjacent and distinct excavation between Building 208 and former UST No. 081533-6 (approximately 10 feet to the west of UST No. 081533-6). The piping associated with UST No. 081533-6 was removed along with the other UST. During the closure of UST No. 081533-210 (also referenced as the Building 208B UST), evidence of a release was noted and reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-44 was assigned. The closure of the adjacent Building 208B UST and piping will be reported separately.

Groundwater samples were collected from monitoring well 208 on July 10, 2001 and August 10, 2001. Groundwater was analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC) indicating that the UST had no impact to groundwater quality.

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*. Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. Following removal, the UST was inspected for holes. No holes were noted in the UST and no potentially contaminated soils were observed surrounding the tank.

On October 19, 1993, following the removal of the UST, post-excavation soil samples A-1, A-2, A-3, A-4, A-5, and A-6 were collected from the sidewalls of the excavation, immediately above groundwater (approximately 8 feet below ground surface). All samples were analyzed for total petroleum hydrocarbons (TPHC).

Findings

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 208A contained TPHC that were either non-detectable concentrations of contaminants or below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Sample A-4 contained a non-detectable concentration of contaminants. All other samples contained levels of TPHC ranging in concentration from 5.95 mg/kg to 70.1 mg/kg.

Site Restoration

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

Conclusions and Recommendations

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

No further action is proposed in regard to the closure and site assessment of UST No. 081533-6 at Building 208A.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-6, was closed at Building 208A at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on October 19, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on June 6, 1993. The plan was approved on July 12, 1993 and assigned TMS No. C-93-2614. The UST was a single-walled, fiberglass, 4,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 081533-6 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. Cleaning Up The Environment Inc. (CUTE), the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-6 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 081533-6 are included in Appendices A and B, respectively.

It should be noted that one No. 2 fuel oil UST (UST No. 081533-210) associated with Building 208 was closed by removal from an adjacent and distinct excavation between Building 208 and former UST No. 081533-6 (approximately 10 feet to the west of UST No. 081533-6). The piping associated with UST No. 081533-6 was removed along with the other UST. During the closure of UST No. 081533-210 (also referenced as the Building 208B UST), evidence of a release was noted and reported to the NJDEP by the DPW on October 21, 1993. Spill Case No. 93-10-21-1910-44 was assigned. The closure of the adjacent Building 208B UST and piping will be reported separately.

Based on an inspection of the UST, field screening of subsurface soils and analytical results of collected soil samples, the DPW has concluded that no significant historical discharges are associated with the UST or associated piping.

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

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

1.2 SITE DESCRIPTION

Building 208A is located in the eastern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-6 is located north of Building 208A and appurtenant piping runs approximately 48 feet northeast to the fill port area. The fill port area is located adjacent to an asphalt parking lot for easy access. 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 208A. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual 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 Zapeczka, 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 208A is located approximately 925 feet miles north of Oceanport Creek, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 208A is anticipated to be to the southeast.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. A total of 200 gallons of liquid were transported and disposed of by Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for waste manifest (manifest No. NJA-1706542).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No cracks or punctures were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. No evidence of contamination was noted.

Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

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

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, no evidence of contamination was noted during excavation of soils surrounding UST No. 081533-6. Therefore, the excavated soils were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up The Environment Inc. (CUTE)
Contact Person: Nancy Williams
Phone Number: (201)427-2881
NJDEP Company Certification No.: 0200128
- Subsurface Evaluator: Dinkerrai M. Desai
Employer: U.S. Army, Fort Monmouth
Phone Number: (908)532-6224
NJDEP Certification No.: E0002266
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee
Phone Number: (908)532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Freehold Cartage Inc.
Contact Person: Barry Olsen
Phone Number: (908)721-0900
NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Soil excavated from around the tank and appurtenant piping, as well as the UST excavation sidewalls and bottom, were found to be free of potential contamination.

2.3 SOIL SAMPLING

On October 19, 1993 post-excavation soil samples A-1, A-2, A-3, A-4, A-5, and A-6 were collected from a total of six (6) location along the sidewalls of the UST excavation, immediately above groundwater. Refer to soil sampling location map in Figure 3. Groundwater was present at approximately 8 feet below ground surface (BGS). All samples were analyzed for TPHC. Because none of the soil samples exhibited a concentration exceeding 1,000 milligrams per kilogram (mg/kg), none were analyzed for volatile organic compounds with a forward library search for 15 tentatively identified compounds (VO+15).

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported due to sampling utensil absorbency. If absorbency resulted in reducing the actual soil TPHC by 50 %, the highest soil contaminant would have been approximately 140 mg/kg, still below the NJDEP cleanup standard for total organic contaminants. 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 July 10 and August 10, 2001, groundwater at Building 208 was collected and analyzed for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). Sampling and analysis were performed in accordance with the NJDEP Field Sampling Procedures Manual and the Technical Requirements For Site Remediation.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected on October 19, 1993. All samples were analyzed for TPHC. 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 subsurface cleanup criteria is provided in Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E. The full data package, including associated quality control data, is on file at the U.S. Army Fort Monmouth, DPW.

All post-excavation soil samples collected from the UST excavation and from below piping associated with the UST, contained either non-detectable concentrations of TPHC or concentrations below the NJDEP soil cleanup criteria. All samples, with the exception of one (sample A-4), contained levels of TPHC ranging in concentration from 5.95 mg/kg to 70.1 mg/kg. Sample A-4 had a non-detectable concentration.

3.2 GROUNDWATER SAMPLING RESULTS

No compounds were detected in the samples collected from Building 208 on July 10 and August 10, 2001 except diethylphthalate, which was detected at a concentration below the NJDEP groundwater cleanup criteria.

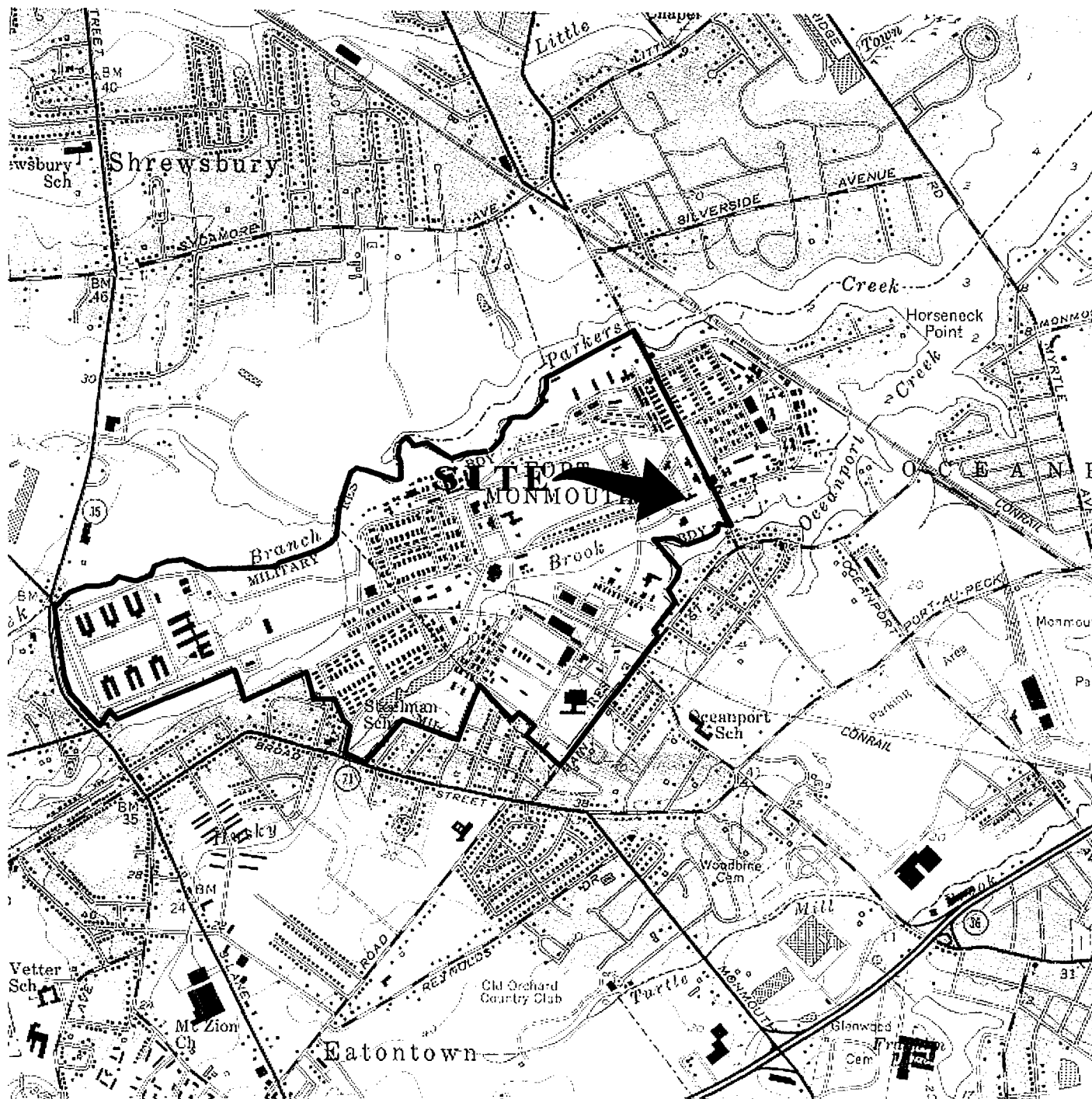
The analytical data package is provided in Appendix E. The full data package, including quality control is on file at U.S. Army Fort Monmouth located in Fort Monmouth, New Jersey. Groundwater samples collected on July 10 and August 10, 2001, were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 208A were below the NJDEP soil cleanup criteria for total organic contaminants.

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

No further action is proposed in regard to the closure and site assessment of UST No. 081533-6 at Building 208A.



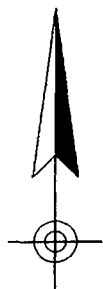
LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981

DMA 6164 1 SE - SERIES V822



NEW
JERSEY

QUADRANGLE LOCATION

FIGURE 1

LOCATION MAP

Building 208A

Main-Post West

Fort Monmouth Army Base

Monmouth County, NJ

VERSAR

Engineers, Managers, Scientists, & Planners
Bristol, PA

Mapped, edited and published by the Geological Survey

Scale: 1" = 2000'

Date: Oct. 1993

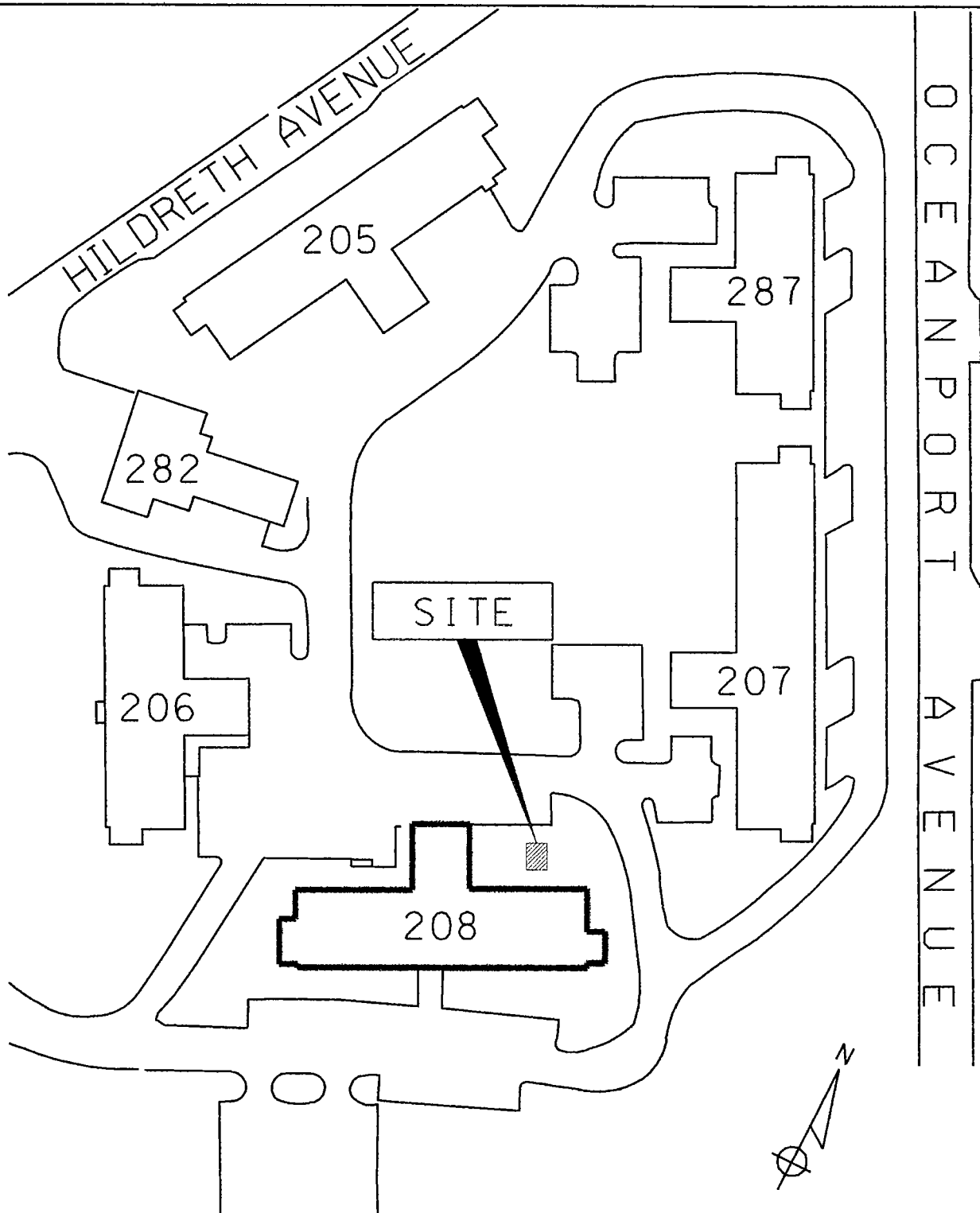
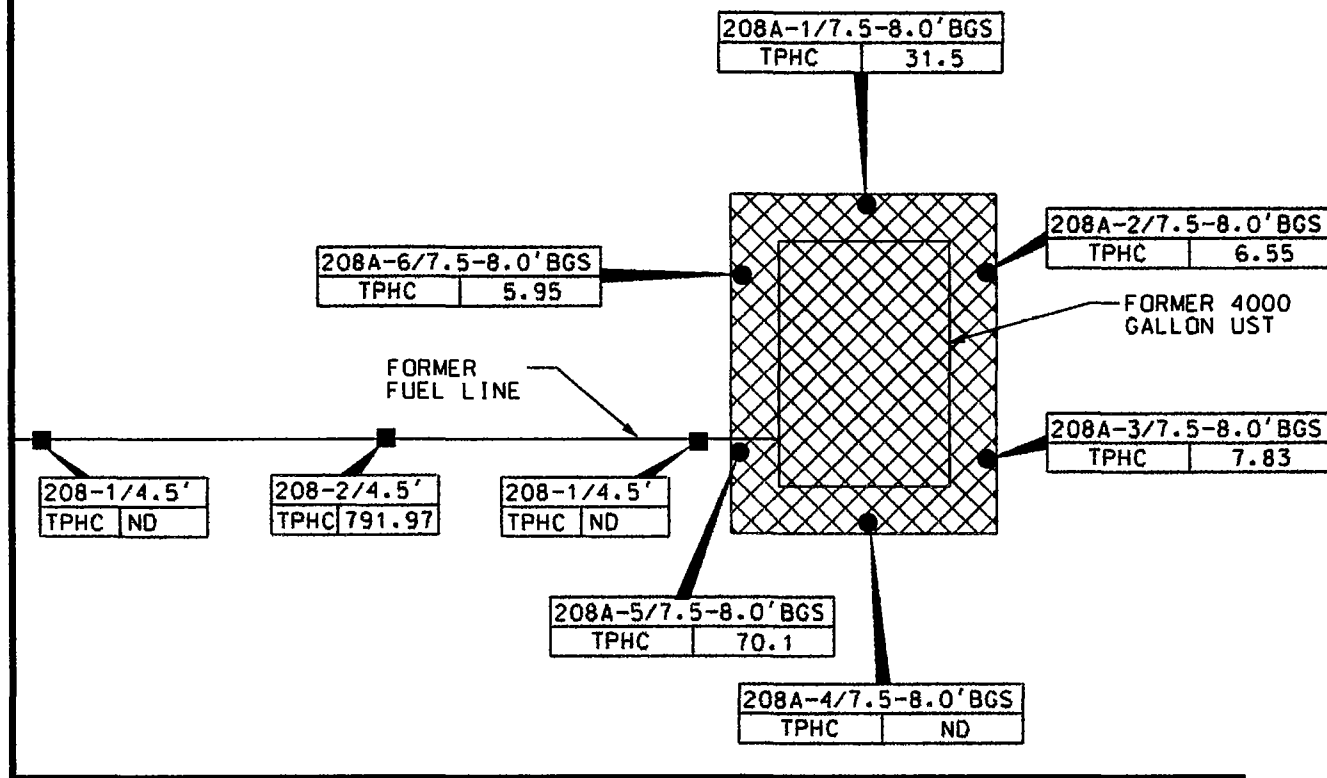


FIGURE 2
SITE MAP
BUILDING 208A
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=100'

DATE: OCT 1993



BUILDING 208



LEGEND

- SOIL SAMPLE LOCATION (OCTOBER 19, 1993)
- SOIL SAMPLE LOCATION (OCTOBER 5, 2001)
- ▨ LIMIT OF EXCAVATION (OCTOBER 19, 1993)

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 208A
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=10'

DATE: JAN 2002

APPENDIX A

NJDEP UST CLOSURE REPORT CERTIFICATION

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name : U.S. Army Fort Monmouth New JerseyFacility Street Address : Directorate of Public Works Building 173Municipality: OceanportCounty: 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

D. (Complete all that apply)

- Assigned Case Manager: Ian Curtis, Federal Case Manager
- UST Registration Number : 0081533-6
- Incident Report Number : _____
- Tank Closure Number: C-93-2614

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.: _____

Firm: U.S. Army Fort Monmouth Firm's UST Cert. Number: N/A - U.S. ArmyFirm Address: Directorate of Public Works Buildings 173 City: Fort MonmouthState: NJZip: 07703Telephone Number : 732-532-6224

(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: _____

Company Name: U.S. Army Fort MonmouthDate: 5/18/00

APPENDIX B

WASTE MANIFEST

Manifest Section

EPA Form 8700-22 (Rev. 3/89) Previous editions are obsolete.

Please type or print in block letters. (This form is designed for use on a 12-pitch typewriter.) EPA Form 8700-22 (Rev. 3/89) Previous editions are obsolete.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NY0000000000		2. Page 1		3. Information	
3. Generator's Name and Mailing Address US Army Communications Electronics Center		4. Generator's Phone 908 721 1111		5. Transporter 1 Company Name LIBERTY TRANSPORT, INC.		6. Transporter 1 Phone 908 721 1111	
7. Transporter 2 Company Name Liberty Transport, Inc.		8. US EPA ID Number NY0000000000		9. Designated Facility Name and Site Address Lionetti Oil Recovery Co., Inc. Ruyon & Chesapeake Rds. Old Bridge, NJ 08857		10. US EPA ID Number NY0000000000	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
a. Petroleum Oil N.O.S. Class 3 (Petroleum Oil) Combustible liquid UN 1270 PG III		0010 711		002006		G	
b.							
c.							
d.							
15. Additional Descriptions for Materials Listed Above Petroleum Oil		K. Handling Codes for Materials Listed Above 104-Filtration		16. Special Handling Instructions and Additional Information NOT EPA REGULATED, REGULATED AS HAZARDOUS WASTE IN NY 24 HOUR EMERGENCY 201-427-2881 NJ DECAL# 46457 ERG#27			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.		Printed/Typed Name DINKER M. DESAI		Signature <i>[Signature]</i>		Month Day Year 12/11/11	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name James V Howard		Signature <i>[Signature]</i>		Month Day Year 12/11/12			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name							
Signature							
Month Day Year							

APPENDIX C

UST DISPOSAL CERTIFICATE

94 MON 11:42

C.U.T.E.

FAX NO. 201 423 8050

P.05



**MONMOUTH COUNTY
RECLAMATION CENTER**

2000 ABBURY AVE
NEPTUNE, NJ 07753

FREEHOLD 08152

FREEHOLD CARTAGE INC

P.O. BOX 5010

FREEHOLD

NJ 07728

632709

FACILITY ID NO. 133071501

RECEIPT DOCUMENT NUMBER

01337919

TARE WEIGHT

18.6800

37350

GROSS WEIGHT

22.5900

45180

DATE TIME OF ARRIVAL DATE TIME OF DEPARTURE NO. OF TONS RECEIVED NO. OF TONS SHIPPED

11/10/93	14:05	13939AX	14:35	NOV 93
----------	-------	---------	-------	--------

QUANTITY	RECEIVED	DESCRIPTION OF WASTE	UNITS	UNIT PRICE	AMOUNT
3.9100	13	Bulky Waste MONMOUTH COUNTY EATONTOWN BOROUGH	Tons		

*** Prepaid Balance Remaining: \$2528.37 ***

TRANSPORTER'S SIGNATURE: [Signature] DOCUMENT TOTAL: [Blank]

THIS IS A CUSTOMER COPY

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

APPENDIX D

SOIL ANALYTICAL DATA PACKAGE

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

Client: U.S. Army
DEH, SELFM-EH-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1292.1-.6
Sample Rec'd: 10/19/93
Analysis Start: 10/19/93
Analysis Comp: 10/19/93

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: B. McKee
Ext. Meth: Sonc.

NJDEPE UST Reg. #: XXXXXXXX-XX,XX,XX
TMS #: X-XX-XXXX
NJDEPE Case #: XXXX
Location #: 208-A

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1292.1	208-A-1 hNu = ND	83	31.5	3.3
1292.2	208-A-2 hNu = ND	80	6.55	3.3
1292.3	208-A-3 hNu = ND	81	7.83	3.3
1292.4	208-A-4 hNu = ND	82	ND	3.3
1292.5	208-A-5 hNu = ND	84	70.1	6.6
1292.6	208-A-6 hNu = ND	88	5.95	3.3
M. Bl.	Method Blank	100	ND	3.3

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



Brian K. McKee
Laboratory Director



Chain of Custody

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

PRINTED IN U.S.A.

10/19/93

B. MK

1 Freon

33.75 100mV

67.5 198mV

135 410mV

R = .9998

Blank

1292.1

21mV

1292.2

2mV

1292.3

3mV

1292.4 0mV

1292.5 (24mV) 15 grams = 48mV

1292.6 2mV

2CM/M

500 MV=CAL=0

100-0970-00

No Yes



NA

 ✓

N/A

✓

✓

Comments: _____

Brian K. McKee
Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-4359 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



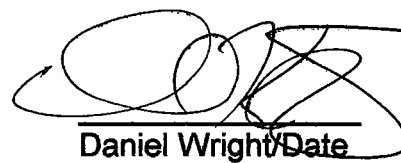
ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: UST Program

Bldg. 208A

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
208-1/4.5'	1649201	Soil	05-Oct-01 11:00	10/05/01
208-2/4.5'	1649202	Soil	05-Oct-01 11:20	10/05/01
208-3/4.5'	1649203	Soil	05-Oct-01 11:40	10/05/01
F. D./4.5'	1649204	Soil	05-Oct-01	10/05/01

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS


Daniel Wright/Date
Laboratory Director

10/15/01

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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.

000001

TPHC Conformance/Non-conformance Summary Report

Indicate
Yes, No, N/A

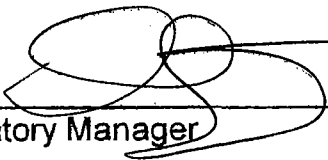
1. Method Detection Limits provided. yes
2. Method Blank Contamination – If yes, list the sample and the Corresponding concentrations in each blank. no

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. yes
(If not met, list number of days exceeded for each sample).

Additional comments: _____



Laboratory Manager

10/15/01
Date

000002

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

Calibration Files

5	=T013512.D	100	=T013511.D	50	=T013510.D
20	=T013514.D	10	=T013513.D		

Compound		5	100	50	20	10	Avg	%RSD
1)	tC C8	1.903	2.229	2.225	2.205	1.959	2.104 E4	7.58
2)	tC C10	2.025	2.388	2.428	2.303	2.122	2.253 E4	7.70
3)	TC C12	2.350	2.364	2.405	2.405	2.233	2.351 E4	3.00
4)	tC C14	2.229	2.424	2.483	2.452	2.303	2.378 E4	4.53
5)	tC C16	2.346	2.472	2.534	2.504	2.360	2.443 E4	3.49
6)	tC C18	2.211	2.654	2.566	2.497	2.183	2.422 E4	8.79
7)	tC C20	2.273	2.554	2.587	2.550	2.351	2.463 E4	5.74
8)	tC C22	2.502	2.605	2.674	2.661	2.533	2.595 E4	2.93
9)	tC C24	2.532	2.609	2.689	2.681	2.537	2.609 E4	2.90
10)	tC C26	2.633	2.640	2.713	2.708	2.598	2.658 E4	1.89
11)	tC C28	2.485	2.605	2.670	2.655	2.505	2.584 E4	3.29
12)	tC C30	2.479	2.681	2.743	2.699	2.466	2.613 E4	5.00
13)	tC C32	2.505	2.654	2.713	2.676	2.505	2.611 E4	3.78
14)	tC C34	2.524	2.640	2.696	2.643	2.505	2.602 E4	3.19
15)	tC C36	2.515	2.734	2.786	2.710	2.548	2.659 E4	4.51
16)	tC C38	2.403	2.607	2.655	2.567	2.405	2.527 E4	4.63
17)	tC C40	2.157	2.473	2.521	2.419	2.203	2.355 E4	6.97
18)	tC c42	2.052	2.402	2.446	2.315	2.101	2.263 E4	7.86
19)	TC Pristane	2.690	2.394	2.464	2.556	2.511	2.523 E4	4.40
20)	TC Phytane	2.811	2.557	2.658	2.677	2.683	2.677 E4	3.38
21)	sC o-terphenyl	2.513	2.582	2.657	2.644	2.505	2.580 E4	2.76
22)	tC TPHC - total	3.737	2.779	2.926	2.996	3.074	3.102 E4	11.96

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011010\T013579.D
 Acq On : 10 Oct 2001 10:21 am
 Sample : Tstd050
 Misc : 50 ppm std
 IntFile : TPHCINT.E

Vial: 1
 Operator: B.Patel
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Tue Oct 02 13:05:07 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	21.040	21.383 E3	-1.6	96	0.00
2	tc C10	22.530	23.050 E3	-2.3	95	0.00
3	TC C12	23.515	23.094 E3	1.8	96	0.00
4	tc C14	23.782	23.742 E3	0.2	96	0.00
5	tc C16	24.434	24.292 E3	0.6	96	0.00
6	tc C18	24.223	24.882 E3	-2.7	97	0.00
7	tc C20	24.629	25.030 E3	-1.6	97	0.00
8	tc C22	25.951	25.594 E3	1.4	96	0.00
9	tc C24	26.095	25.545 E3	2.1	95	0.00
10	tc C26	26.585	25.813 E3	2.9	95	0.00
11	tc C28	25.840	25.293 E3	2.1	95	0.00
12	tc C30	26.135	25.905 E3	0.9	94	0.00
13	tc C32	26.107	25.559 E3	2.1	94	0.00
14	tc C34	26.016	25.358 E3	2.5	94	0.00
15	tc C36	26.586	25.897 E3	2.6	93	0.00
16	tc C38	25.272	24.169 E3	4.4	91	0.00
17	tc C40	23.545	22.020 E3	6.5	87	-0.01
18	tc c42	22.635	19.738 E3	12.8	81	-0.03
19	TC Pristane	25.229	23.499 E3	6.9	95	0.00
20	TC Phytane	26.772	25.426 E3	5.0	96	0.00
21	sc o-terphenyl	25.802	25.704 E3	0.4	97	0.00
22	tc TPHC - total	31.023	30.243 E3	2.5	103	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011010\T013590.D
 Acq On : 10 Oct 2001 4:58 pm
 Sample : Tstd050
 Misc : 50 ppm std
 IntFile : TPHCINT.E

Vial: 12
 Operator: B.Patel
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Tue Oct 02 13:05:07 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	21.040	22.194 E3	-5.5	100	0.00
2	tC C10	22.530	22.768 E3	-1.1	94	0.00
3	TC C12	23.515	23.386 E3	0.5	97	0.00
4	tC C14	23.782	24.139 E3	-1.5	97	0.00
5	tC C16	24.434	24.730 E3	-1.2	98	0.00
6	tC C18	24.223	25.820 E3	-6.6	101	0.00
7	tC C20	24.629	25.433 E3	-3.3	98	0.00
8	tC C22	25.951	26.193 E3	-0.9	98	0.00
9	tC C24	26.095	26.448 E3	-1.4	98	0.00
10	tC C26	26.585	26.685 E3	-0.4	98	0.00
11	tC C28	25.840	26.191 E3	-1.4	98	0.00
12	tC C30	26.135	26.875 E3	-2.8	98	0.00
13	tC C32	26.107	26.520 E3	-1.6	98	0.00
14	tC C34	26.016	26.269 E3	-1.0	97	0.00
15	tC C36	26.586	26.956 E3	-1.4	97	0.00
16	tC C38	25.272	25.379 E3	-0.4	96	0.00
17	tC C40	23.545	23.609 E3	-0.3	94	0.00
18	tC c42	22.635	22.219 E3	1.8	91	0.00
19	TC Pristane	25.229	23.906 E3	5.2	97	0.00
20	TC Phytane	26.772	25.767 E3	3.8	97	0.00
21	sC o-terphenyl	25.802	25.977 E3	-0.7	98	0.00
22	tC TPHC - total	31.023	27.845 E3	10.2	95	-0.95#

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

Client : U.S. Army **Project # :** 16492
DPW. SELFM-PW-EV **Location :** Bldg.208A
Bldg. 173 **UST Reg. # :**
Ft. Monmouth, NJ 07703

Analysis: OQA-QAM-025 **Date Received :** 5-Oct-01
Matrix: Soil **Date Extracted :** 10-Oct-01
Inst. ID. GC TPHC INST. #1 **Extraction Method :** Shake
Column Type : RTX-5, 0.32mm ID, 30M **Analysis Complete :** 10-Oct-01
Injection Volume : 1uL **Analyst :** B.Patel

Sample			Surrogate Added (ppm)	Amount Recovered (ppm)	Percent Recovery
1649201			10.00	10.13	101.31
1649202			10.00	10.16	101.55
1649203			10.00	10.73	107.26
1649204			10.00	9.97	99.67
METHOD BLANK	MB-2489		10.00	9.52	95.24

Surrogate Added : o-Terphenyl

000008

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

Client :	U.S. Army	Project # :	16492
	DPW. SELFM-PW-EV	Location :	Bldg.208A
	Bldg. 173	UST Reg. # :	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	Date Received :	5-Oct-01
Matrix:	Soil	Date Extracted :	10-Oct-01
Inst. ID.	GC TPHC INST. #1	Extraction Method :	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	Analysis Complete :	10-Oct-01
Injection Volume :	1uL	Analyst :	B.Patel

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
1649201MS	1000	0.00	765.68	76.57	75-125
1649201MSD	1000	0.00	756.82	75.68	75-125

RPD	1.16	20.00
-----	------	-------

000009

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

Client :	U.S. Army	Project # :	16492
	DPW. SELFM-PW-EV	Location :	Bldg.208A
	Bldg. 173	UST Reg. # :	
	Ft. Monmouth, NJ 07703		
Analysis:	OQA-QAM-025	Date Received :	5-Oct-01
Matrix:	Soil	Date Extracted :	10-Oct-01
Inst. ID.	GC TPHC INST. #1	Extraction Method :	Shake
Column Type :	RTX-5, 0.32mm ID, 30M	Analysis Complete :	10-Oct-01
Injection Volume :	1uL	Analyst :	B.Patel

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
LCS-2490	10-Oct-01	2000	1943.60	97.18	75-125

000010

Data File : C:\HPCHEM\1\DATA\011010\T013580.D Vial: 2
Acq On : 10 Oct 2001 10:54 am Operator: B.Patel
Sample : MB-2489 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 11 8:34 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Oct 02 13:05:07 2001
Response via : Initial Calibration
DataAcq Meth : TPH94.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	12.45	245735	9.524 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	95.24%#

Target Compounds

Data File : C:\HPCHEM\1\DATA\011010\T013580.D

Vial: 2

Acq On : 10 Oct 2001 10:54 am

Operator: B.Patel

Sample : MB-2489

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:34 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

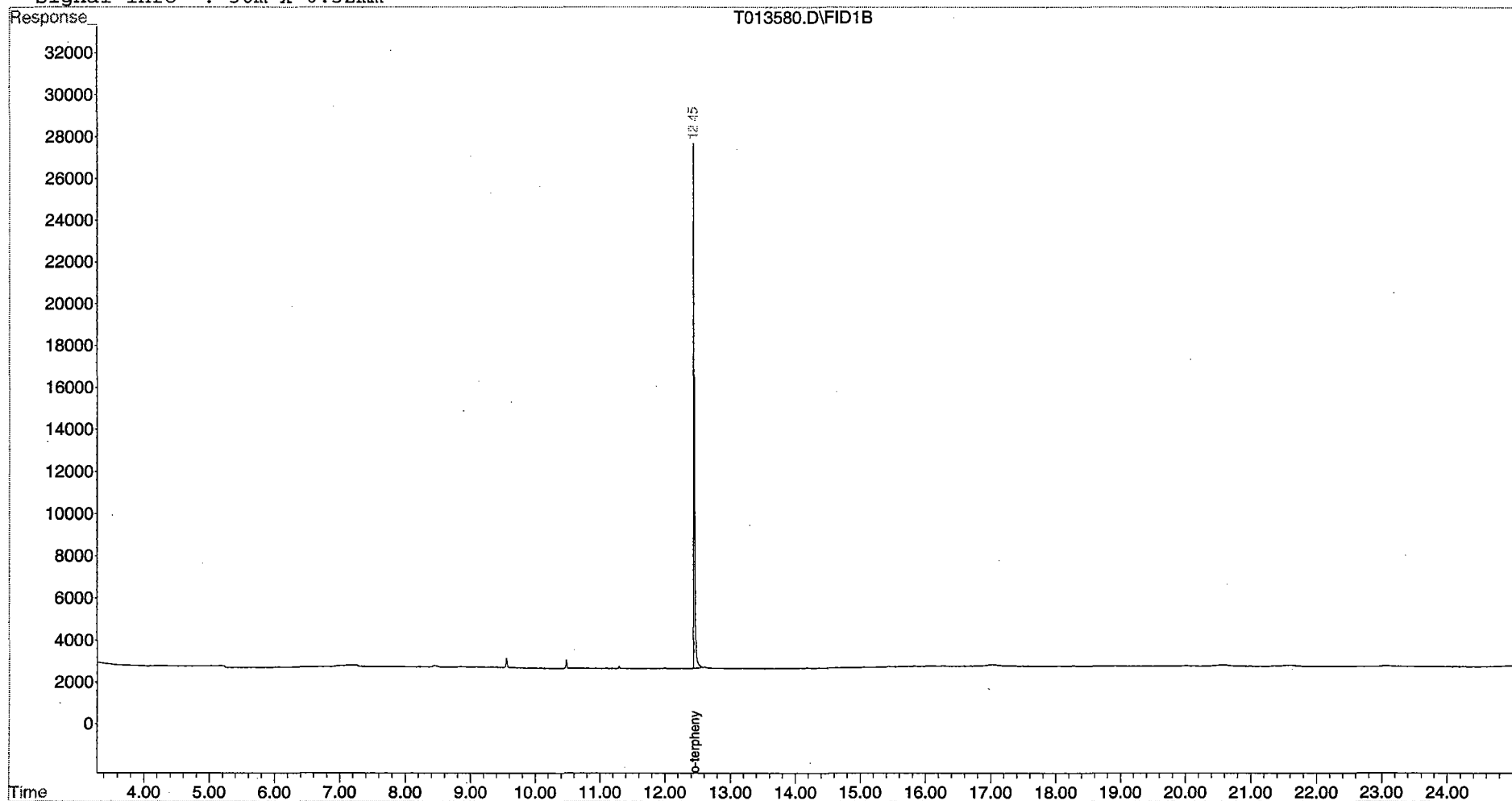
Response via : Multiple Level Calibration

DataAcq Meth : TPH94.M

Volume Inj. : 1 ul

Signal Phase : HP-5

Signal Info : 30m x 0.32mm



Data File : C:\HPCHEM\1\DATA\011010\T013582.D

Vial: 4

Acq On : 10 Oct 2001 12:00 pm

Operator: B.Patel

Sample : 1649201s

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:35 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

Response via : Initial Calibration

DataAcq Meth : TPH94.M

Volume Inj. : 1 ul

Signal Phase : HP-5

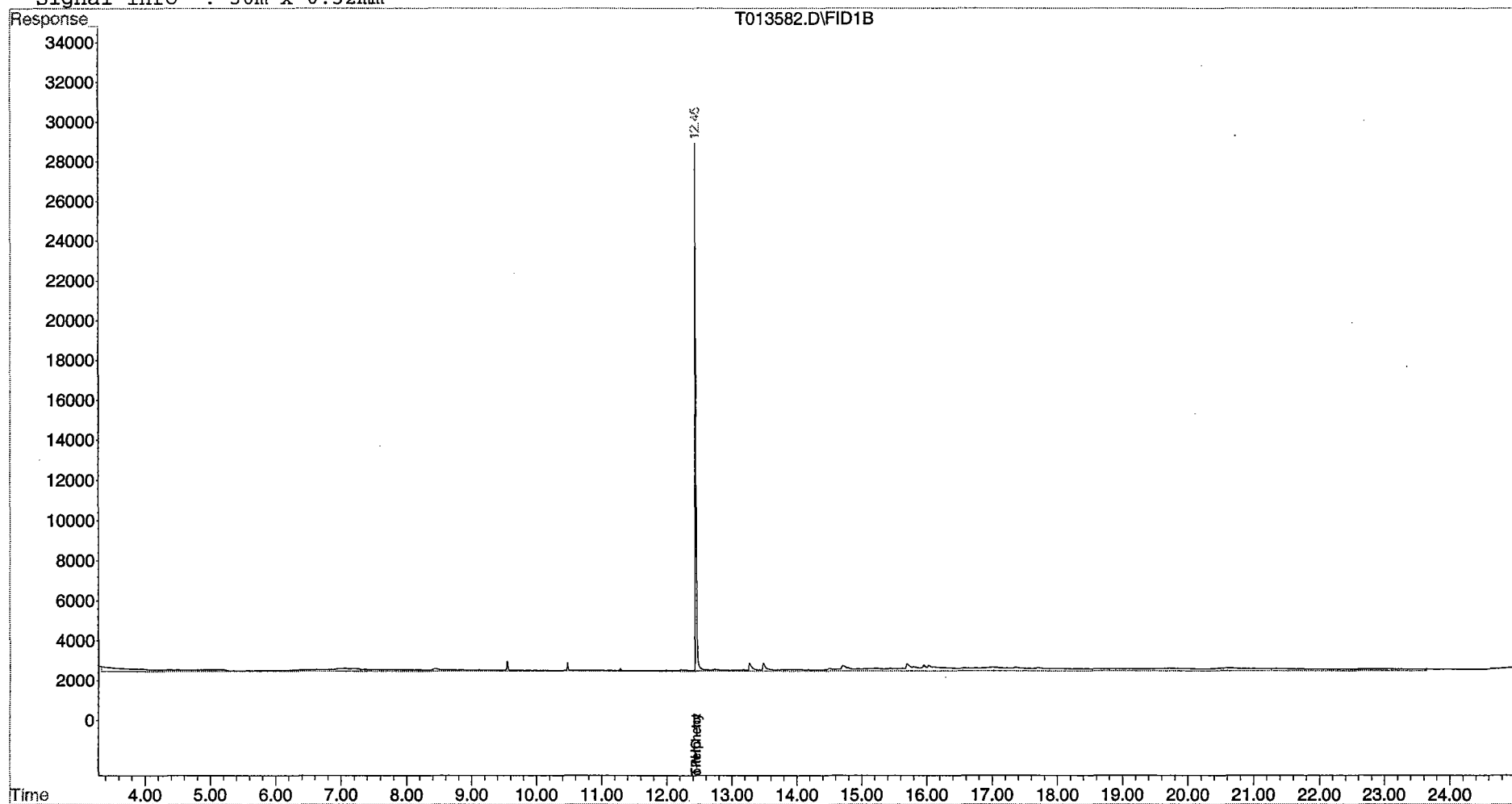
Signal Info : 30m x 0.32mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) sC o-terphenyl	12.45	261385	10.131 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	101.31%#
Target Compounds			
22) tC TPHC - total	12.45	1240933	40.001 mg/L m

Data File : C:\HPCHEM\1\DATA\011010\T013582.D Vial: 4
 Acq On : 10 Oct 2001 12:00 pm Operator: B.Patel
 Sample : 1649201s Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 IntFile : TPHCINT.E
 Quant Time: Oct 11 8:35 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Tue Oct 02 13:05:07 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TPH94.M

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



000014

Data File : C:\HPCHEM\1\DATA\011010\T013585.D

Vial: 7

Acq On : 10 Oct 2001 1:40 pm

Operator: B.Patel

Sample : 1649202s

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:36 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

Response via : Initial Calibration

DataAcq Meth : TPH94.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	12.45	262005	10.155 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	101.55%#
Target Compounds			
9) tC C24	13.44	208031	7.972 mg/L
11) tC C28	14.67	77219	2.988 mg/L
12) tC C30	15.65	129709	4.963 mg/L
13) tC C32	15.96	67641	2.591 mg/L
15) tC C36	17.61	35976	1.353 mg/L
20) TC Phytane	12.05	236981	8.852 mg/L
22) tC TPHC - total	12.45	6249660	201.455 mg/L m

Data File : C:\HPCHEM\1\DATA\011010\T013585.D

Vial: 7

Acq On : 10 Oct 2001 1:40 pm

Operator: B.Patel

Sample : 1649202s

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:36 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

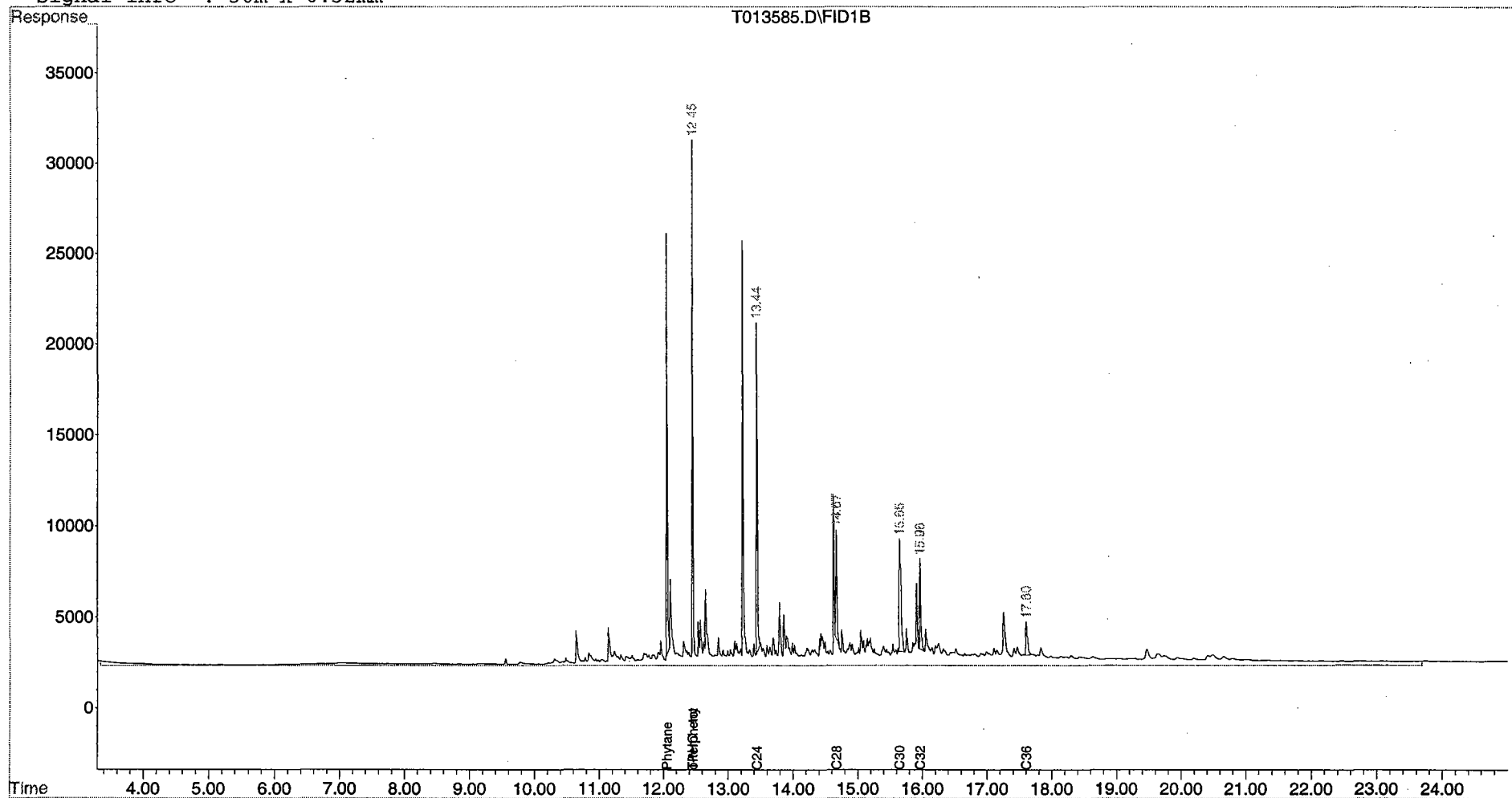
Response via : Multiple Level Calibration

DataAcq Meth : TPH94.M

Volume Inj. : 1 ul

Signal Phase : HP-5

Signal Info : 30m x 0.32mm



000016

Data File : C:\HPCHEM\1\DATA\011010\T013586.D Vial: 8
Acq On : 10 Oct 2001 2:14 pm Operator: B.Patel
Sample : 1649203s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 11 8:37 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Oct 02 13:05:07 2001
Response via : Initial Calibration
DataAcq Meth : TPH94.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	12.45	276751	10.726 mg/L
Spiked Amount	10.000	Range 8 - 13	Recovery = 107.26%#

Target Compounds

Data File : C:\HPCHEM\1\DATA\011010\T013586.D

Vial: 8

Acq On : 10 Oct 2001 2:14 pm

Operator: B.Patel

Sample : 1649203s

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:37 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

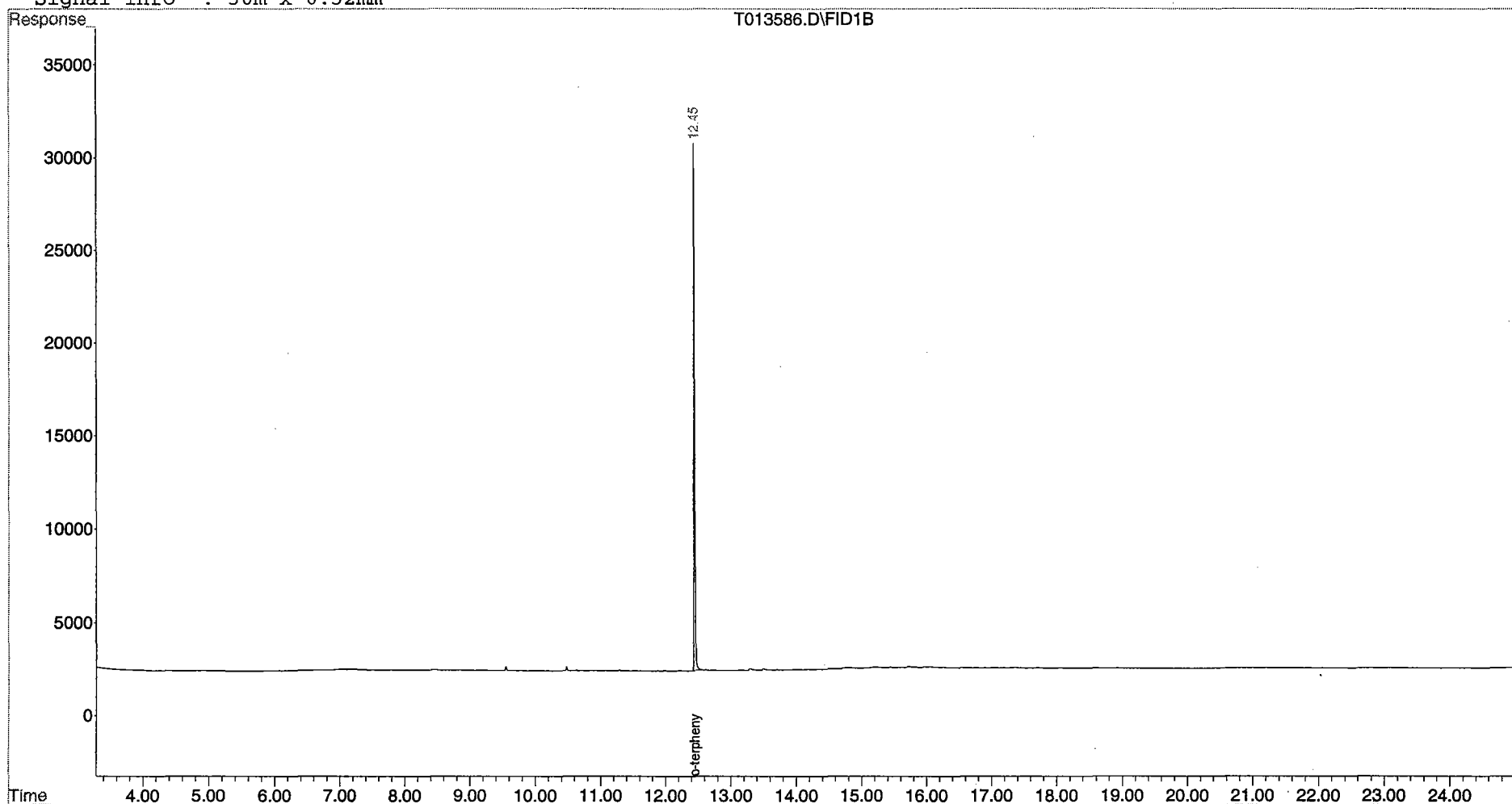
Response via : Multiple Level Calibration

DataAcq Meth : TPH94.M

Volume Inj. : 1 ul

Signal Phase : HP-5

Signal Info : 30m x 0.32mm



000018

Data File : C:\HPCHEM\1\DATA\011010\T013587.D

Vial: 9

Acq On : 10 Oct 2001 2:47 pm

Operator: B.Patel

Sample : 1649204s

Inst : GC/MS Ins

Misc :

Multiplr: 1.00

IntFile : TPHCINT.E

Quant Time: Oct 11 8:37 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)

Title : TPHC Calibration 06/05/97 21 peaks

Last Update : Tue Oct 02 13:05:07 2001

Response via : Initial Calibration

DataAcq Meth : TPH94.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 12.45 257171 9.967 mg/L

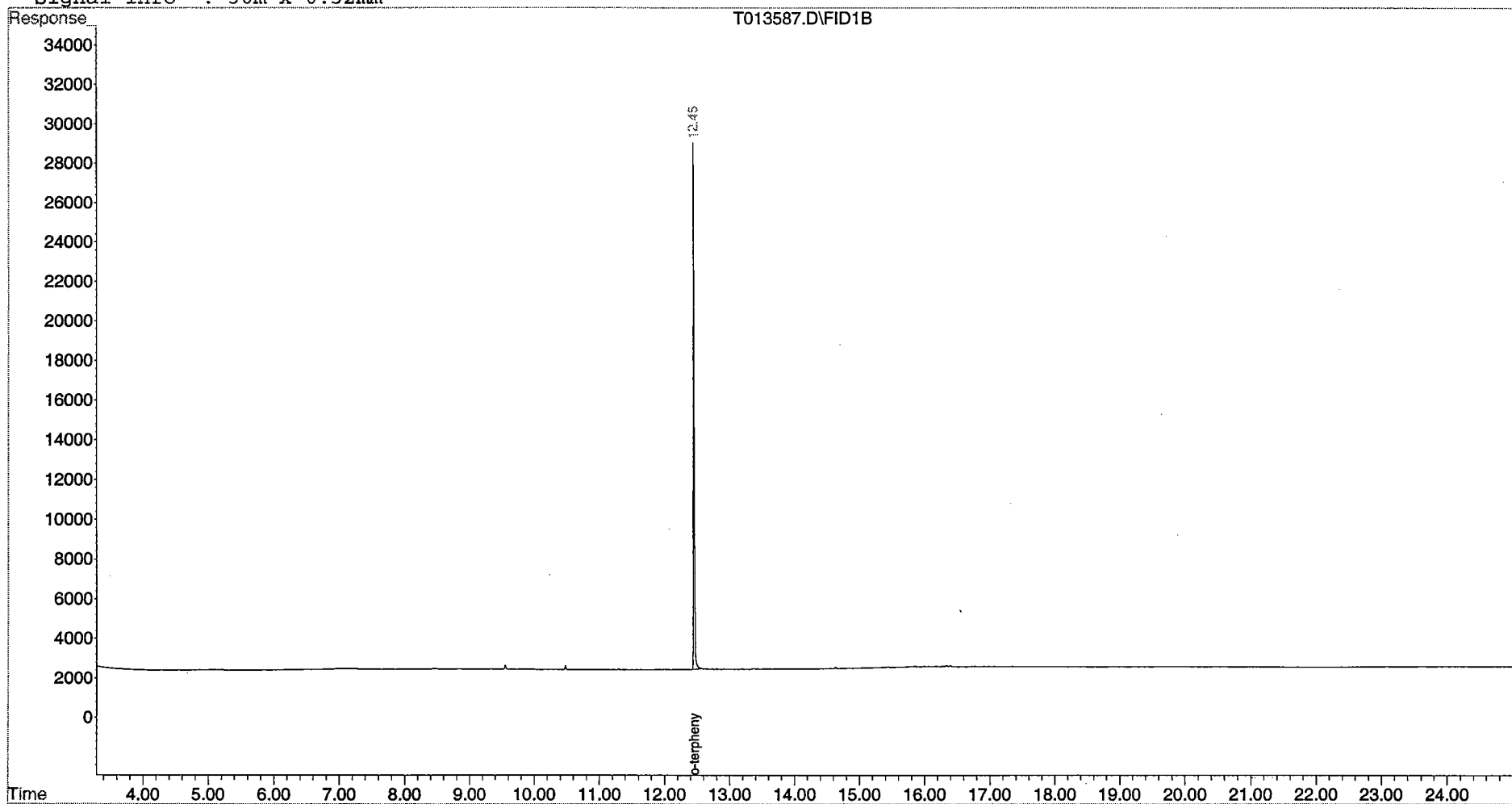
Spiked Amount 10.000 Range 8 - 13 Recovery = 99.67%#

Target Compounds

Data File : C:\HPCHEM\1\DATA\011010\T013587.D Vial: 9
Acq On : 10 Oct 2001 2:47 pm Operator: B.Patel
Sample : 1649204s Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Oct 11 8:37 2001 Quant Results File: TPH94.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH94.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Tue Oct 02 13:05:07 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH94.M

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



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.

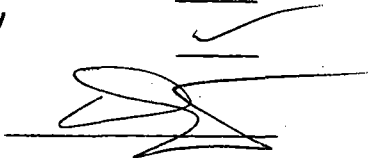
It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package and in the main body of the report.

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

✓
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Laboratory Manager or Environmental Consultant's Signature

Date 10/15/01



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



ANALYTICAL DATA REPORT

FOR

Directorate of Public Works

Fort Monmouth, NJ 07703

PROJECT : UST Program

SAMPLE LOCATION AND IDENTIFICATION

SITE: Bldg. 208

ABORATORY ID #	MONITOR WELL#	NJDEP WELL ID#	SAMPLE DATE
1624204	0208MW01	29-30963	07/10/01

NJDEP Laboratory Certification # 13461


Daniel Wright/Date
Laboratory Director

METHODOLOGY SUMMARY

PARAMETER	REFERENCE
TARGET ANALYTE LIST	Standard Methods, 18 th ed.
Aluminum	3120B
Antimony	3120B
Arsenic	3120B
Barium	3120B
Beryllium	3120B
Cadmium	3120B
Calcium	3120B
Chromium	3120B
Cobalt	3120B
Copper	3120B
Iron	3120B
Lead	3120B
Magnesium	3120B
Manganese	3120B
Mercury	3112B
Nickel	3120B
Potassium	3120B
Selenium	3120B
Silver	3120B
Sodium	3120B
Thallium	3120B
Vanadium	3120B
Zinc	3120B
TARGET COMPOUND LIST	Federal Register 40 CFR Part 136 Appendix A
Base/Neutrals and Acid Extractables by GC/MS	625
Purgeable Organics by GC/MS	624
Pesticides and PCB's by GC	608

SAMPLING

Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil

Chain of Custody Record

print legibly

U.S. ARMY FORT MONMOUTH MONITORING WELL SAMPLING DATA

LOCATION: 208
MW#: 0208MW01
NJDEP ID #: 29-30963
NJDEP CERT #: 13461
SAMPLING CONTRACTOR: TVS
SAMPLER: Corey McCormack
DATE: 07/11/01
WEATHER: Sunny, hot and humid.
TIDE: N/A

LNAPLs: N
DNAPLs N
ELEV. OF INNER CASING SURVEY MARK: N/A ft
INNER CASING DIA.: 4 INCH
DEPTH TO WATER: 4.00 ft
DEPTH OF WELL: 15.07 ft
DEPTH TO TOP OF SCREEN: ft
HEIGHT OF WATER: 11.07 ft
(11.07) X .65 X 3 = 21.58
GALLONS OF H2O TO BE PURGED: 22 gal
PURGE METHOD: (FLOW OF <0.5 TO >5.0 gpm): PERISTALTIC
PURGE RATE: 0.25 gpm
Hnu READING: 0.0 ppm

PURGE START TIME: 14:45
pH 6.29 su
DISSOLVED O2 0.38 ppm
TEMP 14.27 °C
SPECIFIC CONDUCTIVITY 214.9 us/cm

PURGE END TIME: 16:13
pH 6.15 su
DISSOLVED O2 0.96 ppm
TEMP 16.58 °C
SPECIFIC CONDUCTIVITY 240.6 us/cm

DEPTH TO H2O AFTER PURGE AND BEFORE SAMPLING: 6.77 ft
(SAMPLING METHOD: DEDICATED (LAW NJDEP FSPM 1992) TEFLON ® BAILER)
TOTAL VOLUME PURGED: 22 gal

SAMPLE START TIME: 16:14
pH 5.95 su
DISSOLVED O2 0.27 ppm
TEMP 16.17 °C
SPECIFIC CONDUCTIVITY 236.9 us/cm

SAMPLE END TIME: 16:18

COMMENTS: Very orange colored, turned clear.

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 **VC006498.D**
 Operator **Skelton**
 Date Acquired **12-Jul-01**

Sample Name **MB**
 Field ID **MB**
 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

MB 2129

Lab Name: FMETL NJDEP#: 13461

Project: LTM Case No.: 16242 Location: 208 SDG No.: _____

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

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006498.D

Level: (low/med) LOW Date Received: 7/11/01

% Moisture: not dec. _____ Date Analyzed: 7/12/01

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

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

CONCENTRATION UNITS:

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

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

Data File **VC006506.D**
 Operator **Skelton**
 Date Acquired **13-Jul-01**

Sample Name **1624201**
 Field ID **Trip Blank**
 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	4.72	413761	12.90 ug/L	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: LTM Case No.: 16242 Location: 208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624201
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006506.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: not dec. _____ Date Analyzed: 7/13/01
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

Data File **VC006507.D**
 Operator **Skelton**
 Date Acquired **13-Jul-01**

Sample Name **1624202**
 Field ID **Field Blank**
 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Field Blank

Lab Name: FMETL NJDEP#: 13461
Project: LTM Case No.: 16242 Location: 208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624202
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006507.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: not dec. _____ Date Analyzed: 7/13/01
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

Data File **VC006508.D**
 Operator **Skelton**
 Date Acquired **13-Jul-01**

Sample Name **1624203**
 Field ID **Dupe**
 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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Dupe

Lab Name: FMETL NJDEP#: 13461
Project: LTM Case No.: 16242 Location: 208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624203
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006508.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: not dec. _____ Date Analyzed: 7/13/01
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

Data File **VC006509.D**
 Operator **Skelton**
 Date Acquired **13-Jul-01**

Sample Name **1624204**
 Field ID **208MW**
 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

208 MW

Lab Name: FMETL NJDEP#: 13461
Project: LTM Case No.: 16242 Location: 208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624204
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006509.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: not dec. _____ Date Analyzed: 7/13/01
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

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

Data File Name **BNA05700.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **MB 2015**
 Misc Info **7/17/2001**
 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	
108-95-2	Phenol			not detected	4000	0.52 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63 ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.61 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	
95-48-7	2-Methylphenol			not detected	NLE	0.59 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57 ug/L	
106-44-5	4-Methylphenol			not detected	NLE	0.48 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	
88-75-5	2-Nitrophenol			not detected	NLE	0.52 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	0.39 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.15 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	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.71 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	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.59 ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	0.96 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	
51-28-5	2,4-Dinitrophenol			not detected	40	1.84 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73 ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	1.41 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA05700.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **MB 2015**
 Misc Info **7/17/2001**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
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	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	2.10 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	
87-86-5	Pentachlorophenol			not detected	1	1.74 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	
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 2015

Lab Name: FMETL Lab Code 13461
Project: LTM Case No.: 16242 Location: B208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: MB 2015
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA05700.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: _____ decanted: (Y/N) N Date Extracted: 7/17/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/25/01
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

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

Data File Name **BNA05704.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **1624202**
 Misc Info **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	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	
108-95-2	Phenol			not detected	4000	0.52 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63 ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.61 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	
95-48-7	2-Methylphenol			not detected	NLE	0.59 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57 ug/L	
106-44-5	4-Methylphenol			not detected	NLE	0.48 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	
88-75-5	2-Nitrophenol			not detected	NLE	0.52 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	0.39 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.15 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	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.71 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	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.59 ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	0.96 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	
51-28-5	2,4-Dinitrophenol			not detected	40	1.84 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73 ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	1.41 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA05704.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **1624202**
 Misc Info **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
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	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	2.10 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	
87-86-5	Pentachlorophenol			not detected	1	1.74 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	
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: LTM Case No.: 16242 Location: B208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624202
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA05704.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: _____ decanted: (Y/N) N Date Extracted: 7/17/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/25/01
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

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

Data File Name **BNA05705.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **1624203**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	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	
108-95-2	Phenol			not detected	4000	0.52 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63 ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.61 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	
95-48-7	2-Methylphenol			not detected	NLE	0.59 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57 ug/L	
106-44-5	4-Methylphenol			not detected	NLE	0.48 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	
88-75-5	2-Nitrophenol			not detected	NLE	0.52 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	0.39 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.15 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	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.71 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	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.59 ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	0.96 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	
51-28-5	2,4-Dinitrophenol			not detected	40	1.84 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73 ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	1.41 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA05705.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **1624203**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
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	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	2.10 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	
87-86-5	Pentachlorophenol			not detected	1	1.74 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	
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:

Dupe

Lab Name: FMETL Lab Code 13461
Project: LTM Case No.: 16242 Location: B208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 1624203
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA05705.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: _____ decanted: (Y/N) N Date Extracted: 7/17/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/25/01
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report

U.S. Army, Fort Monmouth Environmental Laboratory

NJDEP Certification #13461

Data File Name BNA05706.D

Operator Skelton

Date Acquired 25-Jul-01

Sample Name 1624204

Misc Info 208 Monitoring Well

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	
108-95-2	Phenol			not detected	4000	0.52 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	0.63 ug/L	
95-57-8	2-Chlorophenol			not detected	40	0.61 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	
95-48-7	2-Methylphenol			not detected	NLE	0.59 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	0.57 ug/L	
106-44-5	4-Methylphenol			not detected	NLE	0.48 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	
88-75-5	2-Nitrophenol			not detected	NLE	0.52 ug/L	
105-67-9	2,4-Dimethylphenol			not detected	100	0.93 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	0.48 ug/L	
120-83-2	2,4-Dichlorophenol			not detected	20	0.39 ug/L	
65-85-0	Benzoic Acid			not detected	NLE	1.15 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	
59-50-7	4-Chloro-3-methylphenol			not detected	NLE	0.71 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	
88-06-2	2,4,6-Trichlorophenol			not detected	20	0.59 ug/L	
95-95-4	2,4,5-Trichlorophenol			not detected	700	0.96 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	
51-28-5	2,4-Dinitrophenol			not detected	40	1.84 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	0.73 ug/L	
100-02-7	4-Nitrophenol			not detected	NLE	1.41 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA05706.D**
 Operator **Skelton**
 Date Acquired **25-Jul-01**

Sample Name **1624204**
 Misc Info **208 Monitoring Well**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
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	
534-52-1	4,6-Dinitro-2-methylphenol			not detected	NLE	2.10 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	
87-86-5	Pentachlorophenol			not detected	1	1.74 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	
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:

208MW

Lab Name: FMETL Lab Code 13461
Project: LTM Case No.: 16242 Location: B208 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 1624204
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA05706.D
Level: (low/med) LOW Date Received: 7/11/01
% Moisture: decanted: (Y/N) N Date Extracted: 7/17/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/25/01
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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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: Bldg. 208/UST

Bldg. 208

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
0208MW01	16347.01	Aqueous	10-Aug-01 10:40	08/10/01
DUP.	16347.02	Aqueous	10-Aug-01	08/10/01

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS


Daniel Wright Date 8-21-01
Laboratory Director

METHODOLOGY SUMMARY

PARAMETER	REFERENCE
TARGET ANALYTE LIST	Standard Methods, 18 th ed.
Aluminum	3120B
Antimony	3120B
Arsenic	3120B
Barium	3120B
Beryllium	3120B
Cadmium	3120B
Calcium	3120B
Chromium	3120B
Cobalt	3120B
Copper	3120B
Iron	3120B
Lead	3120B
Magnesium	3120B
Manganese	3120B
Mercury	3112B
Nickel	3120B
Potassium	3120B
Selenium	3120B
Silver	3120B
Sodium	3120B
Thallium	3120B
Vanadium	3120B
Zinc	3120B
TARGET COMPOUND LIST	Federal Register 40 CFR Part 136 Appendix A
Base/Neutrals and Acid Extractables by GC/MS	625
Purgeable Organics by GC/MS	624
Pesticides and PCB's by GC	608



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

[illegible]

U.S. ARMY FORT MONMOUTH MONITORING WELL SAMPLING DATA

LOCATION: 208
MW#: 0208MW01
NJDEP ID #: 29-30963
NJDEP CERT #: 13461
SAMPLING CONTRACTOR: TVS
SAMPLER: Corey McCormack
DATE: 08/10/01
WEATHER: Hot and humid.
TIDE: N/A

LNAPLs: N
DNAPLs N
ELEV. OF INNER CASING SURVEY MARK: N/A ft
INNER CASING DIA.: 4 INCH
DEPTH TO WATER: 5.00 ft
DEPTH OF WELL: 15.05 ft
DEPTH TO TOP OF SCREEN: N/A ft
HEIGHT OF WATER: 10.05 ft
(10.05) X .65 X 3 = 19.59
GALLONS OF H2O TO BE PURGED: 20 gal
PURGE METHOD: (FLOW OF <0.5 TO >5.0 gpm): PERISTALTIC
PURGE RATE: 0.23 gpm
Hnu READING: 0.0 ppm

PURGE START TIME: 09:12

pH 6.61 su

DISSOLVED O2 0.44 ppm

TEMP 18.46 °C

SPECIFIC CONDUCTIVITY 224.3 us/cm

PURGE END TIME: 10:39

pH 6.09 su

DISSOLVED O2 0.33 ppm

TEMP 19.85 °C

SPECIFIC CONDUCTIVITY 217.5 us/cm

DEPTH TO H2O AFTER PURGE AND BEFORE SAMPLING: 6.59 ft

(SAMPLING METHOD: DEDICATED (LAW NJDEP FSPM 1992) TEFLON @ BAILER)

TOTAL VOLUME PURGED: 20 gal

SAMPLE START TIME: 10:40

pH 6.09 su

DISSOLVED O2 0.33 ppm

TEMP 19.87 °C

SPECIFIC CONDUCTIVITY 217.4 us/cm

SAMPLE END TIME: 10:45

COMMENTS: Cloudy, orange.

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 **VC006815.D**
 Operator **Skelton**
 Date Acquired **13-Aug-01**

Sample Name **MB**
 Field ID **MB**
 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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

MB

Lab Name: FMETL NJDEP#: 13461
Project: UST Case No.: 16347 Location: 208 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: MB
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006815.D
Level: (low/med) LOW Date Received: 8/10/01
% Moisture: not dec. _____ Date Analyzed: 8/13/01
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

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

Data File **VC006822.D**
 Operator **Skelton**
 Date Acquired **13-Aug-01**

Sample Name **1634701**
 Field ID **208MW01**
 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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

208MW01

Lab Name: FMETL NJDEP#: 13461

Project: UST Case No.: 16347 Location: 208 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1634701

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006822.D

Level: (low/med) LOW Date Received: 8/10/01

% Moisture: not dec. _____ Date Analyzed: 8/13/01

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/LNumber TICs found: 11

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	25.96	11	J
2.	unknown	26.88	9	J
3.	unknown	29.99	27	J
4.	unknown	30.47	7	J
5.	unknown	30.98	7	J
6.	unknown	32.15	9	J
7.	unknown	32.32	8	J
8.	unknown	32.78	11	J
9.	unknown	33.24	11	J
10.	unknown	33.48	5	J
11.	unknown	34.06	4	J

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

Data File **VC006823.D**
 Operator **Skelton**
 Date Acquired **13-Aug-01**

Sample Name **1634702**
 Field ID **Dupe**
 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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID:

Dupe

Lab Name: FMETL NJDEP#: 13461
Project: UST Case No.: 16347 Location: 208 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 1634702
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC006823.D
Level: (low/med) LOW Date Received: 8/10/01
% Moisture: not dec. Date Analyzed: 8/13/01
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

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

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

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

Data File Name **BN04981.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **MB-2278**
 Misc Info **MB 081401**
 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	18.51	691662	11.31 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 **BN04981.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **MB-2278**
 Misc Info **MB 081401**
 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-2278

Lab Name: FMETL Lab Code 13461

Project: LTM Case No.: 16347 Location: 208 SDG No: _____

Matrix: (soil/water) WATER Lab Sample ID: MB-2278

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04981.D

Level: (low/med) LOW Date Received: 8/10/01

% Moisture: _____ decanted: (Y/N) N Date Extracted: 8/14/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/15/01

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	6.81	4	J

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

Data File Name **BN04991.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **1634701**
 Misc Info **208MW01**
 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	18.50	435679	7.09 ug/L	5000	1.54 ug/L	B
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 **BN04991.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **1634701**
 Misc Info **208MW01**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benidine			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:

208MW01

Lab Name: FMETL Lab Code 13461
Project: LTM Case No.: 16347 Location: 208 SDG No: _____
Matrix: (soil/water) WATER Lab Sample ID: 1634701
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04991.D
Level: (low/med) LOW Date Received: 8/10/01
% Moisture: _____ decanted: (Y/N) N Date Extracted: 8/14/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/15/01
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000-00-0	2,6-Dimethylbenzaldehyde	13.62	8	JN
2.	unknown	28.93	4	J
3.	unknown	29.62	6	J
4. 000000-00-0	9-Hexacosene	30.29	4	JN

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

Data File Name **BN04992.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **1634702**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	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	18.50	387033	6.10 ug/L	5000	1.54 ug/L	B
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 **BN04992.D**
 Operator **B.Patel**
 Date Acquired **15-Aug-01**

Sample Name **1634702**
 Misc Info **Dupe**
 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

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 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:

Dupe

Lab Name: FMETL Lab Code 13461
Project: LTM Case No.: 16347 Location: 208 SDG No: _____
Matrix: (soil/water) WATER Lab Sample ID: 1634702
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04992.D
Level: (low/med) LOW Date Received: 8/10/01
% Moisture: _____ decanted: (Y/N) N Date Extracted: 8/14/01
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/15/01
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. 000000-00-0	2,6-Dimethylbenzaldehyde	13.61	18	JN