

COPY

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 739
Main Post-West Area***

NJDEP UST Registration No. 0081533-117

November 1998

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

BUILDING 739

**MAIN POST-WEST AREA
NJDEP UST REGISTRATION NO. 0081533-117**

NOVEMBER 1998

PREPARED FOR:

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

PREPARED BY:

**SMC ENVIRONMENTAL SERVICES GROUP
501 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406**

PROJECT NO. 2491-308

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EXECUTIVE SUMMARY

UST Closure

On June 17, 1998, a fiberglass underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) underground storage tank procedures at the Main Post-West area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0081533-117 (Fort Monmouth ID No. 739), was located southeast of Building 739. UST No. 0081533-117 was a 1,000-gallon No. 2 fuel oil UST.

Site Assessment

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements for Site Remediation*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes or punctures. No holes or punctures were noted in the UST and no evidence of potentially contaminated soils was observed surrounding the tank. Groundwater was encountered at 6.0 feet below ground surface. Oily drops were observed on the groundwater and appeared to be from a petroleum based oil or grease that coated the steel piping. The oily drops were immediately cleaned-up and no further contamination was observed. Samples contained non-detectable levels of TPHC.

Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with crushed stone, sand, and native backfill and 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 exist in the former location of the UST or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 0081533-117 at Building 739.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 0081533-117, was closed at Building 739 at the Main Post-West area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on June 17, 1998. Refer to site location map on Figure 1. This report presents the results of the Department of Public Works (DPW) implementation of the UST Decommissioning/Closure Plan approved by the NJDEP. The UST was a fiberglass 1,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 0081533-117 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 0081533-117 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The Standard Reporting Form and signed Site Assessment Summary form for UST No. 0081533-117 are included in Appendices A and B, respectively.

Based on inspecting the UST, field screening of subsurface soils and groundwater, and reviewing 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 SMC Environmental Services Group, to assist the United States Army Directorate of Public Works (DPW) in complying with the 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. October 1990 and revisions dated November 1, 1991).

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

1.2 SITE DESCRIPTION

Building 739 is located in the Main Post-West area of the Fort Monmouth Army Base. UST No. 0081533-117 was located southeast of Building 739 and appurtenant steel piping ran approximately ten (10) feet southwest from the excavation to Building 739. Copper piping was also located in the same piping trench as the steel piping. The copper piping was not connected to the tank. 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 739. 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 739 located approximately 400 feet northeast of Husky Brook, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 739 is anticipated to be to the southwest.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- All underground obstructions (utilities, etc.) were identified 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 site assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 25 gallons of liquid from the UST and its associated piping were transported by Casie Protank to Casie Ecology Oil Salvage, Inc. facility, a NJDEP-approved petroleum recycling and disposal company located in Vineland, New Jersey. Refer to Appendix C for the waste manifest.

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes 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 observed. Soil screening was also performed along the piping run associated with the UST closure. No evidence of potentially contaminated soils was observed anywhere along the piping length. Groundwater was encountered at 6.0 feet below ground surface. Oily drops were observed on the groundwater and appeared to be from a petroleum based oil or grease that coated the steel piping. The oily drops were immediately cleaned-up and no further contamination was observed. See Figure 3 for a cross-sectional view of the excavated area.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported to Marpal Disposal Company, Inc. See Appendix D for a copy of the UST disposal certificate and Appendix F for photographs of the UST. The transportation of the UST was in compliance with all applicable regulations and laws.

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, no soils exhibited signs of contamination. 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* (October 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:

- Subsurface Evaluator: Charles Appleby
Employer: U.S. Army, Fort Monmouth
Phone Number: (732) 532-6224
NJDEP Certification No.: 2056
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Phone Number: (908) 532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Casie Protank Environmental Services
Contact Person: Bob Corsiglia
Phone Number: (609) 696-4401

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, did not exhibit any evidence of potential contamination. Groundwater was encountered at 6.0 feet bgs. Oily drops were observed on the groundwater and appeared to be from a petroleum based oil or grease that coated the steel piping. The oily drops were immediately cleaned-up and no further contamination was observed.

2.3 SOIL SAMPLING

On June 17, 1998, following the removal of the UST, post-excavation soil samples A, B, C, D, E, F, and DUP B were collected from a total of six (6) locations of the UST excavation. Sample A was collected along the excavation floor at a depth of 9.5 feet bgs. Sidewall samples B, C, D and E were collected at a depth of 5.5 feet bgs. Sample F was collected along the former piping length of the excavation, which was approximately ten (10) feet in length. The piping sample was collected at a depth of 1.0 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids.

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

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST, post-excavation soil samples were collected on June 17, 1998, from a total of six (6) locations. All samples were analyzed for TPHC and total solids. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling locations are shown on Figure 4. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on June 17, 1998, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Samples contained non-detectable levels of TPHC.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 739 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 exist in the former location of the UST or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 0081533-117 at Building 739.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 739, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 1 of 1

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
A	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
B	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
C	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
D	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
E	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
F	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025
DUP B	6/17/98	6/17/98	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 739, MAIN POST-WEST AREA
 FORT MONMOUTH, NEW JERSEY

Page 1 of 1

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
A/9.5=	3662.01	6/17/98	6/17/98	Total Solid	--	--	71.19	--	--
				TPHC	214	Yes	ND	10,000	No
B/5.5=	3662.02	6/17/98	6/17/98	Total Solid	--	--	68.02	--	--
				TPHC	223	Yes	ND	10,000	No
C/5.5=	3662.03	6/17/98	6/17/98	Total Solid	--	--	70.25	--	--
				TPHC	218	Yes	ND	10,000	No
D/5.5=	3662.04	6/17/98	6/17/98	Total Solid	--	--	69.36	--	--
				TPHC	217	Yes	ND	10,000	No
E/5.5=	3662.05	6/17/98	6/17/98	Total Solid	--	--	68.80	--	--
				TPHC	220	Yes	ND	10,000	No
F/1.0 =	3662.06	6/17/98	6/17/98	Total Solid	--	--	82.46	--	--
				TPHC	189	Yes	ND	10,000	No
DUP B/5.5 =	3662.07	6/17/98	6/17/98	Total Solid	--	--	68.85	--	--
				TPHC	219	Yes	ND	10,000	No

Note:

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

FIGURES

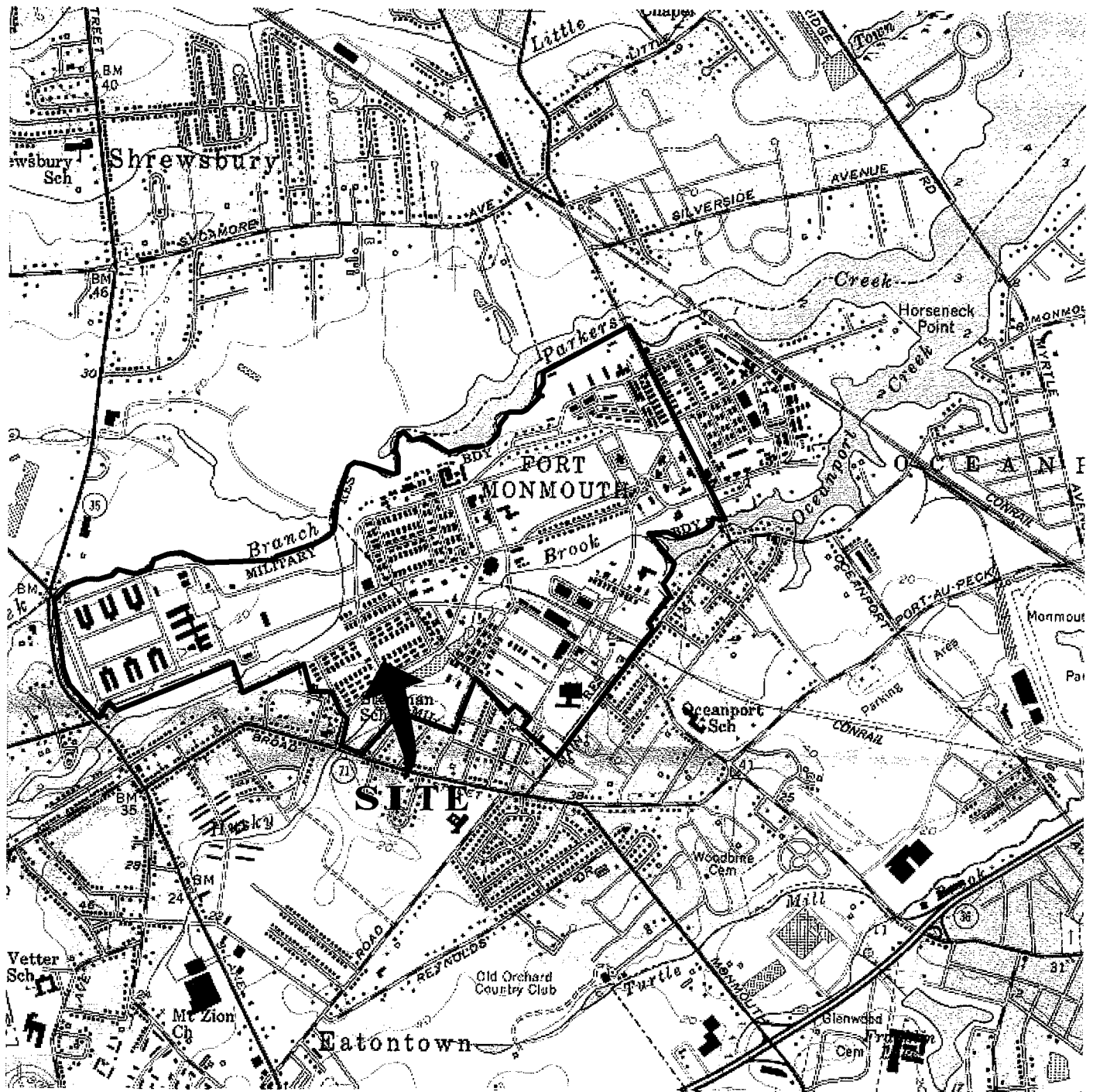


FIGURE 1

SITE LOCATION MAP
 Building 739
 Main Post-West
 Fort Monmouth Army Base
 Monmouth County, NJ



**SMC Environmental
 Services Group**

*Engineers, Managers, Scientists & Planners
 Valley Forge, PA.*

LONG BRANCH, N. J.

40073-C8-TF-024

1954

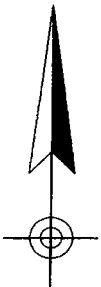
PHOTOREVISED 1981

DMA 6164 I SE - SERIES V822

NEW
 JERSEY



QUADRANGLE LOCATION



Mapped, edited and published by the Geological Survey

SCALE: 1"= 2000'

DATE: JUNE 1998

WILSON AVENUE

RADIO AVENUE

SITE

739

744

NICODEMUS AVENUE



FIGURE 2
SITE MAP
BUILDING 739
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



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

SCALE: 1"=100'

DATE: JUNE 1998

739 2429 FIG2

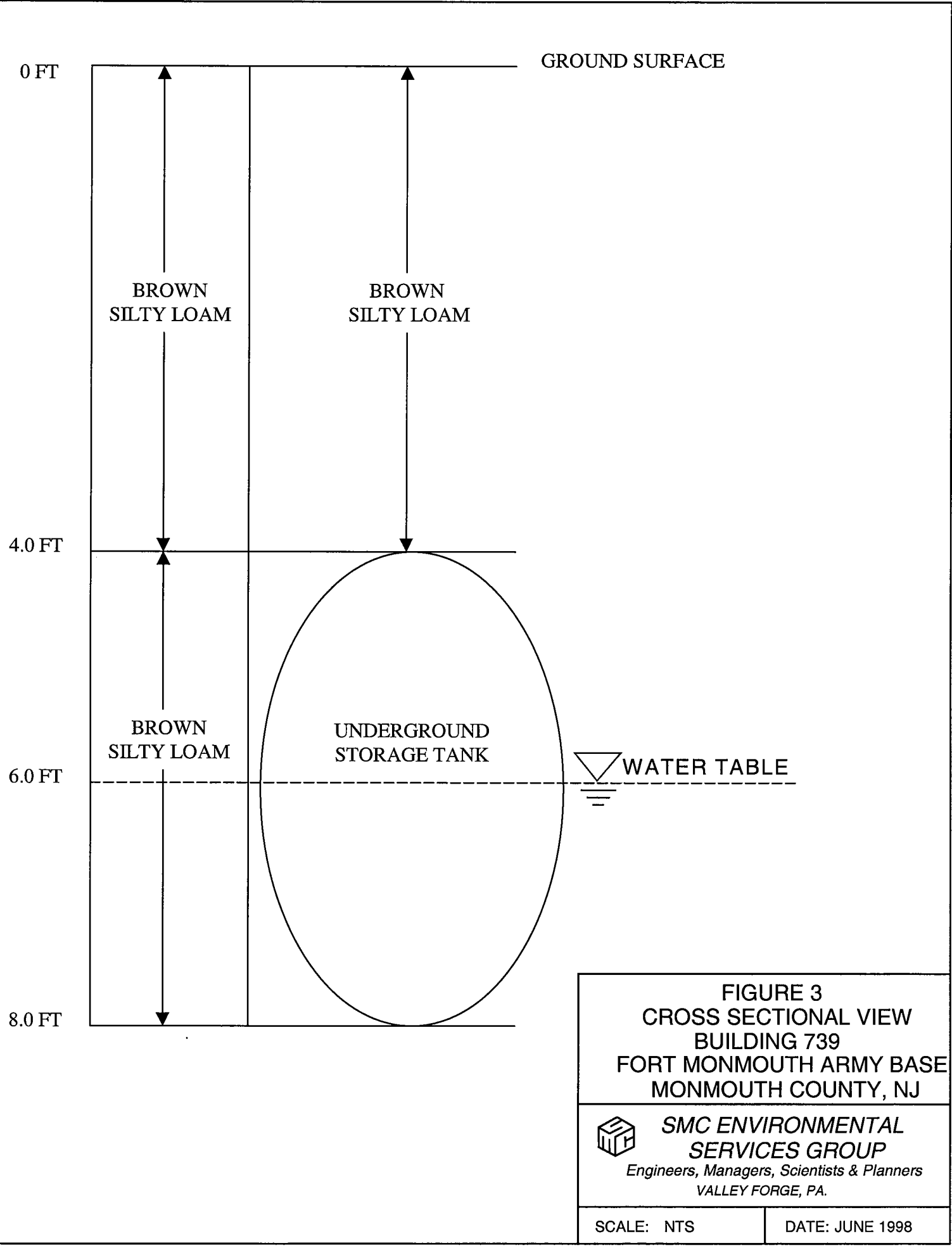


FIGURE 3
CROSS SECTIONAL VIEW
BUILDING 739
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



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

SCALE: NTS

DATE: JUNE 1998

BUILDING 739

FORMER FUEL LINES

SITE D/5.5' BGS
TPHC | ND

SITE E/5.5' BGS
TPHC | ND

SITE C/5.5' BGS
TPHC | ND

FORMER 1000 GALLON UST

SITE A/9.5' BGS
TPHC | ND

SITE F/1.0' BGS
TPHC | ND

DUP B/5.5' BGS
TPHC | ND

SITE B/5.5' BGS
TPHC | ND



LEGEND



SOIL SAMPLE LOCATION
(JUNE 17, 1998)



LIMIT OF EXCAVATION
(JUNE 17, 1998)

NOTES:

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

FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 739
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



**SMC ENVIRONMENTAL
SERVICES GROUP**

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

SCALE: 1"=10'

DATE: JUNE 1998

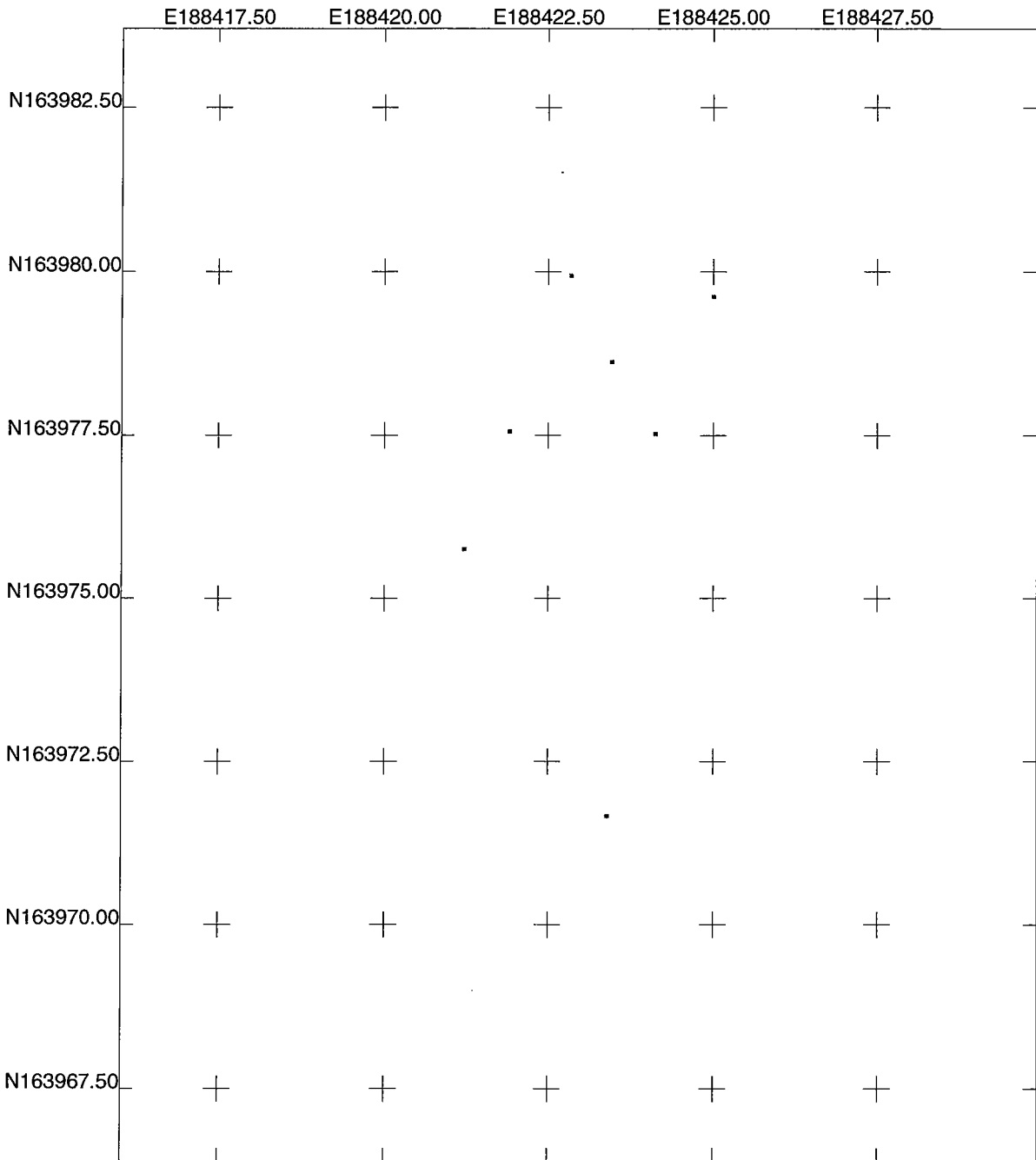
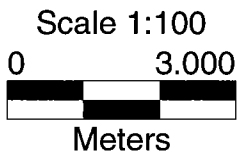


Figure 4 GPS Sampling Locations Map

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



r010714a.cor
 1/8/1999
 Pathfinder Office
Trimble

Figure 4 GPS Sampling Location Point Data

US State Plane 1983 NJ (NY East) 2900 NADCON (Conus)

Sample Points

<u>Location / Desc.</u>	<u>Y Coord. (Northing)</u>	<u>X Coord. (Easting)</u>
739 A	163978.638	188423.457
739 B	163977.534	188424.123
739 C	163979.631	188424.995
739 D	163979.951	188422.844
739 E	163977.568	188421.906
739 F	163975.764	188421.211

Reference Points

<u>Location / Desc.</u>	<u>Y Coord. (Northing)</u>	<u>X Coord. (Easting)</u>
739 CORN	163971.677	188423.39

APPENDIX A
NJDEP-STANDARD REPORTING FORM

Sil Copy

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
 BUREAU OF APPLICABILITY AND COMPLIANCE
 Registration and Billing Unit
 CN 028, Trenton, N.J. 08625-0028
 1-609-984-3156

FOR STATE USE ONLY

Check In Yes No

STATUS Active Inactive COMCODE

**UNDERGROUND STORAGE TANK
 FACILITY QUESTIONNAIRE**

FACILITY UST # 081533 Bldg 739

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

[Check appropriate box(es)]

- A. Is this a registration of a proposed or newly installed underground storage tank? (This form must be filed at least 30 days prior to operation)
- B. Is this a registration of an existing underground storage tank not presently registered?
- C. Is this a correction or amendment to an existing facility registration? UST # 081533
- D. There have been no changes to the facility registration since last submittal. UST # _____ (Go to certification page for signatures)

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

- | | | |
|--|---|--|
| <input type="checkbox"/> Facility Name and/or Address Change | <input type="checkbox"/> Type of Product(s) Stored | <input type="checkbox"/> Financial Responsibility Change |
| <input type="checkbox"/> Owner Name and/or Address Change | <input type="checkbox"/> Spills, Leaks, Releases | <input type="checkbox"/> Substantial Modification(s) |
| <input type="checkbox"/> Facility Operator and/or Address Change | <input checked="" type="checkbox"/> Tank(s) and/or Piping Changes | <input type="checkbox"/> Sale or Transfer (Complete Questions 4,5,6 & 13D) |
| <input type="checkbox"/> Owner Contact Person Change | <input checked="" type="checkbox"/> Closure (Complete Question #13) | <input type="checkbox"/> Other (please specify) |

SECTION A - GENERAL FACILITY INFORMATION

1. Facility Name Rt. Main Post West

2. Facility Location Ft. Monmouth
NUMBER AND STREET

CITY OR MUNICIPALITY

COUNTY _____ STATE N.J. ZIP CODE _____ BLOCK _____ LOT _____

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

Operator Address (if different than #2)

NUMBER AND STREET

CITY OR MUNICIPALITY

STATE _____ ZIP CODE _____

4. Tank Owner _____

5. Tank Owner Address

NUMBER AND STREET

CITY OR MUNICIPALITY

STATE _____ ZIP CODE _____

Contact Person (Tank Owner) CHARLES APPIEBY Contact Tele. No. 732 532 6224
(Area Code) (Extension)

7. EPA ID #

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

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

Bldg 739

10. Facility Type: A State B Commercial/Industrial C County/Municipal D Federal E Charitable / Public School F Residence G Other H Farm (as defined in N.J.S. 54:4-23.1 et seq.)

11. Is a copy of the facility site plan submitted with this registration pursuant to N.J.A.C. 7:14B-2? YES NO

SECTION B - SPECIFIC TANK INFORMATION

ALL underground tanks, including those taken out of operation (UNLESS THE TANK WAS REMOVED FROM THE GROUND PRIOR TO 9/3/86) must be registered. Report all tank/piping status changes unless previously submitted.

	TANK NO. 1			TANK NO. 2			TANK NO. 3			TANK NO. 4			TANK NO. 5		
1. Tank Identification Number	1117														
2. CAS Number (hazardous substances only)															
3. Date Tank Installed (Month/Day/Year)	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year
4. Tank Size (gallons)															
5. Tank Contents (Mark one "X" for each tank)															
A. Leaded gasoline															
B. Unleaded gasoline															
C. Alcohol enriched gasoline															
D. Light diesel fuel (No. 1-D)															
E. Medium diesel fuel (No. 2-D)															
F. Waste Oil															
G. Kerosene (No. 1)															
H. Home heating oil (No. 2)															
J. Heating oil (No. 4)															
K. Heavy heating oil (No. 6)															
L. Aviation fuel															
M. Motor oil															
N. Lubricating oil															
P. Sewage															
Q. Sewage sludge															
R. Other hazardous substances (specify)															
S. Hazardous waste (specify ID number)															
T. Mixtures (please specify)															
U. Emergency spill tank (specify substance)															
V. Other petroleum products (please specify)															
W. Other (please specify)															
6. Tank & Piping Construction (Mark one each for both tank & piping)	Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping	
A. Bare Steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
B. Cathodically protected steel	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
C. Fiberglass-coated steel	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
D. Fiberglass-reinforced plastic	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
E. Internally lined	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
F. Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
7. Tank & Piping Structure (Mark one each for both tank & piping)	Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping	
A. Single wall	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
B. Double wall	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
C. Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
8. Type of Monitoring/Detection System (Mark all that apply for both tank & piping)	Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping		Tank	Piping	
A. Statistical Inventory Reconciliation	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
B. Manual Tank Gauging	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
C. Inventory Control	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
D. Interstitial	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
E. Precision Test	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
F. Ground water observation wells	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
G. Vapor observation wells	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
H. In-tank (automatic) monitoring gauge	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
J. Periodic Tank Test	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

Bldg 739

Tank Identification Number	TANK NO.		TANK NO.		TANK NO.		TANK NO.		TANK NO.			
8. Type of Monitoring/Detection System K. None	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping		
L. Other (please specify)												
9. Overfill Protection (tank only) (Mark one X for each tank)												
A. Yes												
B. No												
10. Spill Containment Around Fill Pipe (Mark one X for each tank)												
A. Yes												
B. No												
11. Tank Status (Mark one X for each tank)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping		
A. In-use												
B. Empty less than 12 months												
C. Empty 12 months or more												
D. Emergency spill tank (sump)												
E. Emergency backup generator tank												
F. Abandoned in Place												
G. Removed												
H. Other (please specify)												
12. If box 11B, C, or D above has been marked, indicate the estimated date last used (month/day/year)	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year
13. Closure Information - Tank ID No.	TANK NO.		TANK NO.		TANK NO.		TANK NO.		TANK NO.			
	117											
A. Date abandoned in place	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year	Mo.	Day	Year
B. Date taken temporarily out of service												
C. Date removed												
D. Date of Sale or Transfer												
E. TMS # (if applicable)	Fed. Cox MGR.											
F. ISRA # (if applicable)	NA											

SECTION C - FINANCIAL RESPONSIBILITY

Does this facility have a Financial Responsibility Assurance Mechanism as required in 40 CFR 280? YES NO
Please list the appropriate financial information below:

_____	_____	_____	_____
Type	Carrier / Issuing Agency		
____/____/____	____/____/____	_____	\$ _____
Effective Date	Expiration Date	Policy Number	Amount

SECTION D - MONITORING SYSTEMS

Does this facility have a release detection monitoring system which is in compliance with N.J.A.C. 7:14B-6? YES NO
If "No", please be aware that the facility must meet the appropriate deadline. (See "Dates to Know" on Page 4)

SECTION E - RECORDKEEPING/COMPLIANCE

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

- Does this facility have cathodic protection systems for all steel tanks and piping?
If "Yes", are the systems properly operated and maintained pursuant to N.J.A.C. 7:14B-5? YES NO
- Are the performance claims and documentation of monitoring systems maintained by the owner or operator pursuant to N.J.A.C. 7:14B-5? YES NO
- Are the proper monitoring, testing, sampling, repair and inventory records kept on-site pursuant to N.J.A.C. 7:14B-5 and 6? YES NO
- Is the proper Release Response Plan kept on-site pursuant to N.J.A.C. 7:14B-5? YES NO
- Does the facility have spill and over fill protection systems pursuant to N.J.A.C. 7:14B-4? YES NO
- Have all Fill Ports been permanently marked as per API #1637 pursuant to N.J.A.C. 7:14B-5? YES NO

Bldg. 39

IMPORTANT INFORMATION

- FEE:** Please make checks payable to: "Treasurer, State of New Jersey". Use of the enclosed return envelope will expedite processing. Registration and Billing Schedule can be found in N.J.A.C. 7:14B.
- PENALTY:** All Initial Registration fees are \$100 per facility. Failure by owner or operator of a regulated underground storage tank to comply with any requirement of the State UST Act or regulations may result in the penalties set forth in N.J.S.A. 58:10A-10.
- EMERGENCY:** If a discharge or spill occurs, the NJDEP Hotline at (609) 292-7172 must be called IMMEDIATELY - 24 hours a day.
- UPGRADE EXEMPTION:** Residential heating oil underground storage tanks are exempt from all upgrade requirements.

DATES TO KNOW (critical deadlines)

- December 22, 1988 — All new federally regulated tank systems must have cathodic protection and spill/overflow protection.
- September 4, 1990 — All new State-only regulated tank systems must have cathodic protection and spill/overflow protection.
- December 22, 1990 — All federally regulated piping must have begun leak detection.
- February 19, 1993 — All federally regulated tank systems must maintain financial responsibility assurance.
- December 22, 1993 — All federally regulated tank systems must have begun leak detection.
- December 22, 1998 — All regulated tanks shall install cathodic protection and spill/overflow protection.

CERTIFICATIONS

NOTE: IF THE PERSON SIGNING CERTIFICATION NO. 2 IS THE SAME AS THE PERSON SIGNING CERTIFICATION NO. 1, THEN CERTIFICATION NO. 2 NEED NOT BE SIGNED. (If different persons are required to sign No. 1 and No. 2, then they must do so.)

CERTIFICATION NO. 1:

Must be signed by the highest ranking individual at the facility with overall responsibility

"I certify under penalty of law that the information provided in this document is true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant civil and criminal 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."

MR James Ott
 (Typed / Printed Name)
Director Public Works
 (Title)

[Signature]
 (Signature)
6/17/98
 (Date)

CERTIFICATION NO. 2:

Must be signed as follows:

- For a corporation, by a principal executive officer of at least the level of vice president
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively
- For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official
- For persons other than indicated above, by the person with legal responsibility for the site

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information. I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal 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."

 (Typed / Printed Name)

 (Title)

 (Signature)

 (Date)

CERTIFICATION NO. 3:

If applicable, must be signed by the individual who is certified to perform services.

"I certify under penalty of law that the information provided in this document is true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant civil and criminal 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."

Charles Appleby, Env. Prot. Spec.
 (Typed / Printed Name) (Title)
U.S. Army
 (Name of Firm, if applicable)

[Signature]
 (Signature)
6/17/98
 (Date)
2056
 (N.J. Certification Number)

APPENDIX B

SITE ASSESSMENT SUMMARY

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

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

Facility Street Address : Directorate of Public Works Building 173

Municipality: Eatontown County : Monmouth

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

B. Owner (RP)'s Name:

Street Address: City :

State: Zip: Telephone Number :

C. (Check as appropriate)

- Site Investigation Report (SIR) \$500 Fee
Remedial Investigation Report (RIR) \$1000 Fee
X NA - Federal Agreement

D. (Complete all that apply)

- Assigned Case Manager : Ian Curtis, Federal Case Manager
UST Registration Number : 81533-117 (7 digits)
Incident Report Number (10 or 12 digits)
Tank Closure Number : Federal Case Manager

E. Certification by the Subsurface Evaluator:

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

Name: Charles Appleby Signature: UST Cert. No.: 2056

Firm: U.S. Army Fort Monmouth Firm's UST Cert. Number: NA - U.S. Army

Firm Address: Directorate of Public Works Building 173 City: Fort Monmouth

State: New Jersey Zip: 07703 Telephone 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.
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: James Ott

Company Name: U.S. Army Fort Monmouth Date: 1/27/95

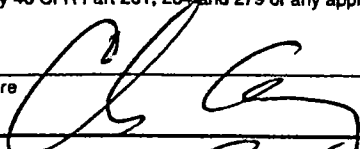
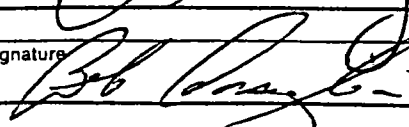
APPENDIX C
WASTE MANIFEST

CASIE / PROTANK

ENVIRONMENTAL SERVICES

739

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N J 3 2 1 0 0 2 0 5 9 7 1 2 3 2 2			2. Page 1 of 1									
3. Generator's Name and Mailing Address U.S. Army Com. Elec. Command Main Post Bldg 173/Attn: Fort Monmouth NJ 07703					A. Non-hazardous Manifest Document Number NHZ020 16448									
4. Generator's Phone (732) 532-6223					B. State Generator's ID c/o James Shirghior, Joe Fallon									
5. Transporter 1 Company Name Casie Ecology Oil Salvage, Inc. N J D 0 4 5 9 9 5 6 9 3			6. US EPA ID Number			C. State Trans. ID 1 6 9 3 1								
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone (609) 696-4401								
9. Designated Facility Name and Site Address Casie Ecology Oil Salvage, Inc. T/A 3209 N. Mill Rd / Casie Protank Vineland NJ 08360			10. US EPA ID Number N J D 0 4 5 9 9 5 6 9 3			E. State Trans. ID								
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers		13. Total Quantity		14. Unit Wt/Vol		L Waste No.			
					No.		Type							
a.		Combustible liquid, n.o.s. (Fuel Oil) NA1993, PGIII					0 0 1		T T		3370 00001		G I D 7 2	
b.														
c.														
d.														
J. Additional Descriptions for Materials Listed Above L, T %oil/sed. %wtr.					K. Handling Codes for Wastes Listed Above									
a.					c.		a.		c.					
b.					d.		b.		d.					
15. Special Handling Instructions and Additional Information a. 24 Hr. Emergency Response #609 696-4401 K. Ambrosia NAERG# 127														
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. I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261, 264 and 279 or any applicable state law.														
Printed/Typed Name Charles Appleby SELF-MANAGED					Signature 					Month Day Year 07/01/98				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Bob Corsiglia					Signature 					Month Day Year 07/01/98				
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 non-hazardous materials covered by this manifest except as noted in Item 19.														
Printed/Typed Name					Signature					Month Day Year				

GENERATOR

TRANSPORTER

FACILITY

CASIE PRO1ANK

739

ENVIRONMENTAL SERVICES

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

NJ3210070597

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. NJ22100201978		Document No. 1146219		2. Page 1 of 1			
3. Generator's Name and Mailing Address U.S. Army Com. Elec. Command c/o Joe Fallon/Bldg Fort Monmouth NJ 07703				A. Non-hazardous Manifest Document Number NHZ020 19112					
4. Generator's Phone (732) 532-6223		6. US EPA ID Number main Post		B. State Generator's ID SAME					
5. Transporter 1 Company Name Casie Ecology Oil Salvage, Inc.		7. Transporter 2 Company Name		C. State Trans. ID 160312					
9. Designated Facility Name and Site Address Casie Ecology Oil Salvage, Inc. T/A 3209 N. Mill Rd / Casie Protank Vineland NJ 08360		10. US EPA ID Number NJID045995693		D. Transporter's Phone ((609) 696-4401)					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity			
a. Combustible liquid, n.o.s.(Fuel Oil) NA1993, III				No. Type		14. Unit Wt/Vol			
				0 0 1 T		X 1946 5L			
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above					
L, T 40 water AT 20% WATER				a. c.					
b. d.				b. d.					
15. Special Handling Instructions and Additional Information a. ERG# 128 b. 24 hr emergency response #609-696-4401 K. Ambrosia CFI#1499									
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. I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261, 264 and 279 or any applicable state law.									
Printed/Typed Name Joseph M. Fallon				Signature Joseph M. Fallon				Month Day Year 06/18/88	
Printed/Typed Name Shawn Lee				Signature Shawn Lee				Month Day Year 06/18/88	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name				Signature				Month Day Year	

GENERATOR

TRANSPORTER

FACILITY

APPENDIX D

UST DISPOSAL CERTIFICATE



**MONMOUTH COUNTY
RECLAMATION CENTER**
TINTON FALLS, NJ

MAILING ADDRESS: 6000 ASBURY AVE.
NEPTUNE, NJ 07738

CUSTOMER COPY

FACILITY I.D. NO. 1336F1SP01

RECEIPT DOCUMENT NUMBER

BILL TO

MARPS08937
MARPAL COMPANY
PO BOX 188

LINCROFT

NJ 07738

HAULER

MARPS08937
MARPAL COMPANY
PO BOX 188

LINCROFT NJ 07738

Escrow Level: 2400.00

01706023

76852

DATE	ENTRY TIME	OPER.	EXIT TIME	OPER.	GROSS WEIGHT	TARE WEIGHT	NET WEIGHT
07/10/98	08:08	VJF	08:31	PMN	(44800 LB)	(37280 LB)	(7520 LB)
00856358	Scale 02		Scale 04		(23.40 T)	(18.64 T)	(3.76 T)

VEHICLE NUMBER	VEHICLE TYPE	PLATE NUMBER	TRANSACTION TYPE
2065AU	Rolloff Open 30	XX89HD	TUS (166) Normal

QUANTITY	WC	DESCRIPTION/ORIGIN	UNITS	UNIT PRICE	AMOUNT
3.7600	136	Bulky Waste - (MCRC) MONMOUTH COUNTY EATONTOWN BOROUGH	Tons 00.00%	88.15	331.44

I hereby certify that the information provided on this form is true to the best of my knowledge.			*** Prepayment balance remaining: 28628.86		*** DOCUMENT TOTAL	
DRIVER NAME PRINT	R. Jacques		SIGNATURE <i>R. Jacques</i>		331.44	

APPENDIX E
SOIL ANALYTICAL DATA PACKAGE

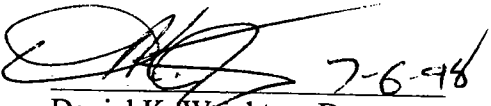
US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEPE # 13461

REPORT OF ANALYSIS

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

Project: Total Petroleum Hydrocarbons
98-0001
Bldg. 739

Project # 3662
Date Rec. 06/17/98
Date Compl. 06/20/98
Released by:


Daniel K. Wright Date: 7-6-98
Laboratory Director

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

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


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

PHC Conformance/Non-conformance Summary Report

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

Laboratory Authentication Statement

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



Daniel K. Wright
Laboratory Manager



Fort Monmouth Environmental Testing Laboratory

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

NJDEP Certification #13461

Chain of Custody Record

Customer: <i>C. Appleby - DPW</i>				Project No: <i>98-0001</i>		Analysis Parameters						Comments: <i>* = SAMPLES KEPT BELOW 4' G.</i>		
Phone #: <i>26224</i>				Location: <i>B. 739</i>		<i>TPHC</i>	<i>of 500</i>							
() DERA () JOMA () Other: _____				<i>81533-117</i>										
Samplers Name / Company: <i>GARY D. MARTINIS - TVS</i>				Sample #										
Lab Sample I.D.	Sample Location	Date	Time	Type	bottles								Remarks / Preservation Method	
<i>3662. 01</i>	<i>739-A</i>	<i>6/17/98</i>	<i>0907</i>	<i>SOIL</i>	<i>1</i>	<i>X</i>	<i>X</i>					<i>ND</i>	<i>EXC. FLOOR @ 9.5' *</i>	
<i>02</i>	<i>B</i>		<i>0910</i>									<i>ND</i>	<i>SIDEWALL @ 5.5'</i>	
<i>03</i>	<i>C</i>		<i>0913</i>									<i>ND</i>		
<i>04</i>	<i>D</i>		<i>0916</i>									<i>ND</i>		
<i>05</i>	<i>E</i>		<i>0919</i>									<i>ND</i>		
<i>06</i>	<i>F</i>		<i>0924</i>									<i>ND</i>	<i>Piping Run @ 6.0'</i>	
<i>07</i>	<i>DUP</i>	<i>↓</i>	<i>—</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>					<i>—</i>	<i>FIELD DUPLICATE ↓</i>	
<p><i>NOTE: OVA (#A57903) CALIBRATED @ 95 ppm CH₄ + ZERO (0) AIR @ 0900 HRS. ON 6/17/98 BY G. D. MARTINIS.</i></p>														
Relinquished by (signature): <i>[Signature]</i>		Date/Time: <i>6/17/98 1125</i>		Received by (signature): <i>[Signature]</i>		Relinquished by (signature):		Date/Time:		Received by (signature):				
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):				
Report Type: () Full, (<input checked="" type="checkbox"/>) Reduced, () Standard, () Screen / non-certified						Remarks: <i>DEDICATED SAMPLING TOOLS USED.</i>								
Turnaround time: (<input checked="" type="checkbox"/>) Standard 4 wks, () Rush _____ Days, () ASAP Verbal _____ Hrs.														

Tph41

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998

Calibration Files

100 =T05610.D 50 =T05611.D 20 =T05612.D
 10 =T05613.D 5 =T05614.D

Compound	100	50	20	10	5	Avg	%RSD
1) tC C8	2.121	2.039	1.912	1.984	2.064	2,024 E4	3.93
2) tC C10	2.305	2.184	2.138	2.205	2.215	2,209 E4	2.76
3) TC C12	2.550	2.393	2.339	2.387	2.400	2,414 E4	3.30
4) tC C14	2.654	2.496	2.459	2.503	2.528	2,528 E4	2.96
5) tC C16	2.711	2.562	2.547	2.612	2.650	2,616 E4	2.56
6) tC C18	3.131	3.028	2.996	3.016	2.986	3,031 E4	1.91
7) tC C20	2.968	2.814	2.807	2.877	2.906	2,874 E4	2.34
8) tC C22	2.923	2.778	2.769	2,841	2.861	2,834 E4	2.24
9) tC C24	2.968	2.825	2.806	2,876	2.900	2,875 E4	2.25
10) tC C26	2.957	2.820	2.782	2.852	2.874	2,857 E4	2.30
11) tC C28	2.992	2.851	2.799	2.873	2.863	2,876 E4	2.47
12) tC C30	3.101	2.957	2.881	2.950	2.903	2,958 E4	2.90
13) tC C32	3.137	2.994	2.879	2.930	2.887	2,966 E4	3.58
14) tC C34	3.267	3.114	2.979	3.014	2.946	3,064 E4	4.24
15) tC C36	3.229	3.069	2.864	2.895	2.752	2,962 E4	6.33
16) tC C38	3.100	2.923	2.657	2.575	2.270	2,705 E4	11.86
17) tC C40	2.791	2.587	2.210	1.982	1.570	2,228 E4	21.76
18) tC c42	2.484	2.257	1.798	1.475	1.060	1,815 E4	31.76
19) TC Pristane	2.844	2.665	2.705	2.785	2.764	2,753 E4	2.54
20) TC Phytane	2,979	2.828	2.827	2.892	2.933	2,892 E4	2.29
21) sC o-terphenyl	3.572	3.380	3.368	3.461	3.500	3,456 E4	2.46
22) tC TPHC - total	3.082	2.986	2.975	3.099	3.340	3,096 E4	4.74

(#) = Out of Range

MEAN RSD % = 5.619

TPH41.M

Fri Jun 12 08:15:45 1998

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\980617\T05799.D
 Acq On : 19 Jun 98 8:06 am
 Sample : 50 PPM STD
 Misc :
 IntFile : TPHCINT.E

Vial: 2
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 tC C8	20.240	20.137 E3	0.5	102	-0.02
2 tC C10	22.094	22.316 E3	-1.0	105	0.00
3 TC C12	24.139	24.835 E3	-2.9	107	0.00
4 tC C14	25.279	26.103 E3	-3.3	108	0.00
5 tC C16	26.162	26.862 E3	-2.7	109	0.00
6 tC C18	30.314	30.998 E3	-2.3	108	0.00
7 tC C20	28.743	29.610 E3	-3.0	109	0.00
8 tC C22	28.341	29.199 E3	-3.0	109	0.00
9 tC C24	28.749	29.836 E3	-3.8	110	0.00
10 tC C26	28.571	29.789 E3	-4.3	113	0.00
11 tC C28	28.758	30.192 E3	-5.0	122	0.01
12 tC C30	29.584	31.311 E3	-5.8	132	0.00
13 tC C32	29.655	31.708 E3	-6.9	138	0.00
14 tC C34	30.640	33.061 E3	-7.9	140	0.00
15 tC C36	29.620	32.982 E3	-11.4	143	0.00
16 tC C38	27.051	32.605 E3	-20.5	148	0.00
17 tC C40	22.281	30.866 E3	-38.5#	156	0.01
18 tC c42	18.150	30.113 E3	-65.9#	173	0.02
19 TC Pristane	27.526	28.113 E3	-2.1	108	0.00
20 TC Phytane	28.919	29.709 E3	-2.7	109	0.00
21 sC o-terphenyl	34.563	36.890 E3	-6.7	113	0.00
22 tC TPHC - total	30.963	31.873 E3	-2.9	114	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\980617\T05810.D
 Acq On : 19 Jun 98 9:54 pm
 Sample : 50 PPM
 Misc :
 IntFile : TPHCINT.E

Vial: 2
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 tC C8	20.240	20.189 E3	0.3	102	-0.04
2 tC C10	22.094	22.522 E3	-1.9	106	0.00
3 TC C12	24.139	24.941 E3	-3.3	107	0.00
4 tC C14	25.279	26.118 E3	-3.3	108	0.00
5 tC C16	26.162	26.866 E3	-2.7	109	0.00
6 tC C18	30.314	31.292 E3	-3.2	109	0.00
7 tC C20	28.743	29.650 E3	-3.2	109	0.00
8 tC C22	28.341	29.290 E3	-3.3	109	0.01
9 tC C24	28.749	29.995 E3	-4.3	110	0.01
10 tC C26	28.571	30.004 E3	-5.0	114	0.01
11 tC C28	28.758	30.428 E3	-5.8	123	0.01
12 tC C30	29.584	31.598 E3	-6.8	134	0.00
13 tC C32	29.655	31.986 E3	-7.9	139	0.00
14 tC C34	30.640	33.335 E3	-8.8	141	0.00
15 tC C36	29.620	33.183 E3	-12.0	144	0.00
16 tC C38	27.051	32.656 E3	-20.7	148	0.01
17 tC C40	22.281	31.117 E3	-39.7#	158	0.02
18 tC c42	18.150	29.786 E3	-64.1#	172	0.03
19 TC Pristane	27.526	28.537 E3	-3.7	109	0.00
20 TC Phytane	28.919	29.795 E3	-3.0	109	0.00
21 sC o-terphenyl	34.563	36.749 E3	-6.3	113	0.00
22 tC TPHC - total	30.963	31.710 E3	-2.4	114	0.00

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

Matrix Spike Recovery Report

Lab. ID #: 3662

Location #: B. 739

Sample	Spike Amount Added (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
3662.06MS	1000	0.00	929.92	92.99	75-125
3662.06MSD	1000	0.00	952.18	95.22	75-125

RPD	2.37	20.00
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Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Blank Spike Recovery Report

Lab. ID #: 3662

Location #: B. 739

Sample	Date Extracted	Spike Amount Added (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits %
Blank Spike	17-Jun-98	1000	995.44	99.54	75-125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05805.D Vi
 Acq On : 19 Jun 98 2:16 pm Operat
 Sample : 3662.01 Inst
 Misc : Multip
 IntFile : TPHCINT.E
 Quant Time: Jun 19 15:57 1998 Quant Results File: TPH41.RE

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Int
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.M

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

Compound	R.T.	Response	Conc
System Monitoring Compounds			
21) sC o-terphenyl	13.91	339922	9.81
Spiked Amount 10.000	Range 8 - 13	Recovery =	98.
Target Compounds			
3) TC C12	10.30	2277	0.09
4) tC C14	11.46	6977	0.27
5) tC C16	12.46	10813	0.41
6) tC C18	12.92	8493	0.28
7) tC C20	13.36	8093	0.28
8) tC C22	14.17	4968	0.17
9) tC C24	14.92	2478	0.08
19) TC Pristane	12.95	4122	0.15
20) TC Phytane	13.40	4166	0.14
22) tC TPHC - total	13.91	1236639	39.95

Quantitation Report

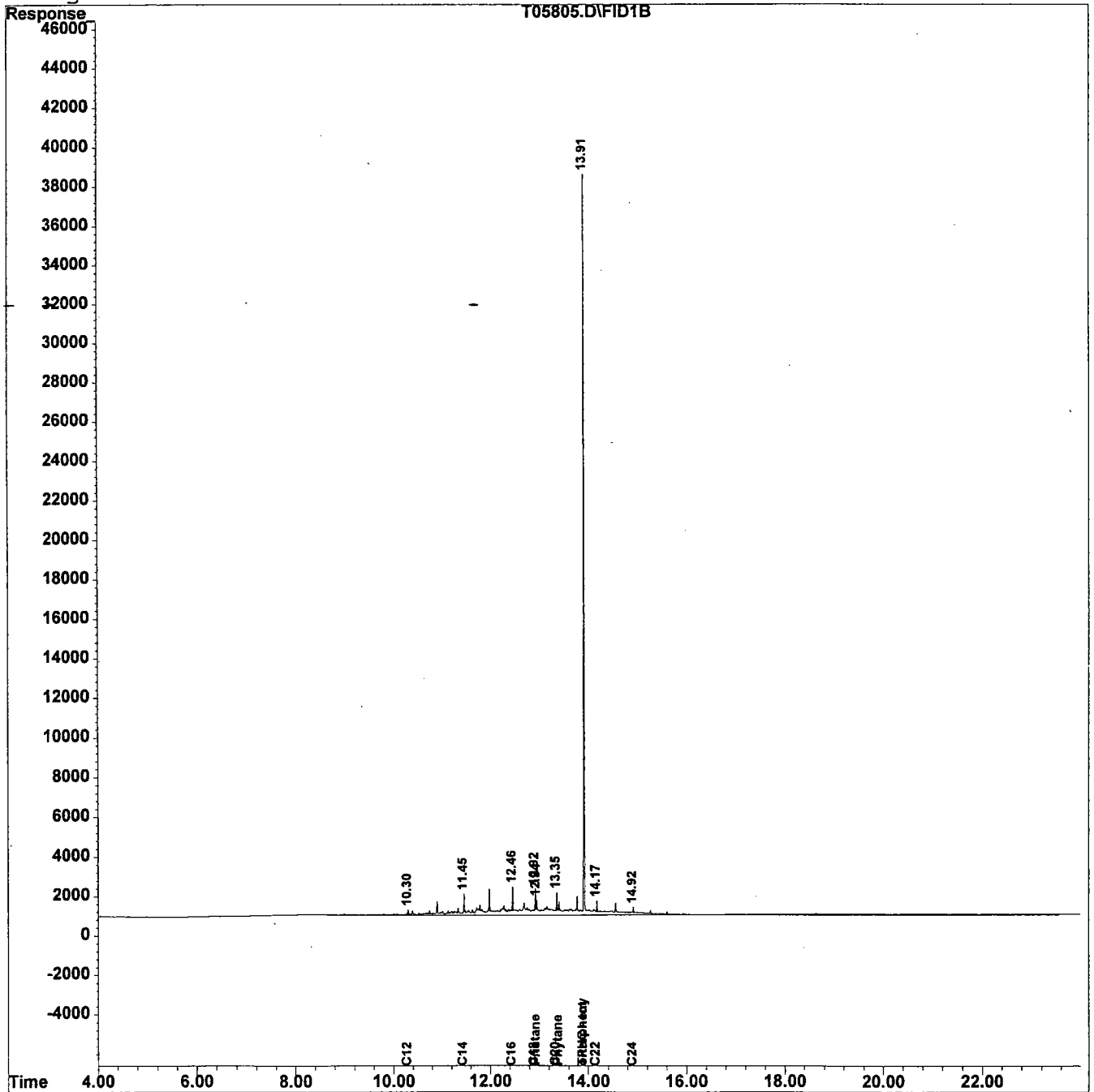
Data File : C:\HPCHEM\1\DATA\980617\T05805.D
Acq On : 19 Jun 98 2:16 pm
Sample : 3662.01
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 19 15:57 1998

Vial: 52
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05806.D Vial: 53
Acq On : 19 Jun 98 4:56 pm Operator: Deinhardt
Sample : 3662.02 Inst : GC/MS Ins
Misc : Multiplr: 1.00
IntFile : TPHCINT.E
Quant Time: Jun 22 8:03 1998 Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Initial Calibration
DataAcq Meth : TPH41.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 13.91 339212 9.814 mg/L
Spiked Amount 10.000 Range 8 - 13 Recovery = 98.14%#

Target Compounds

Quantitation Report

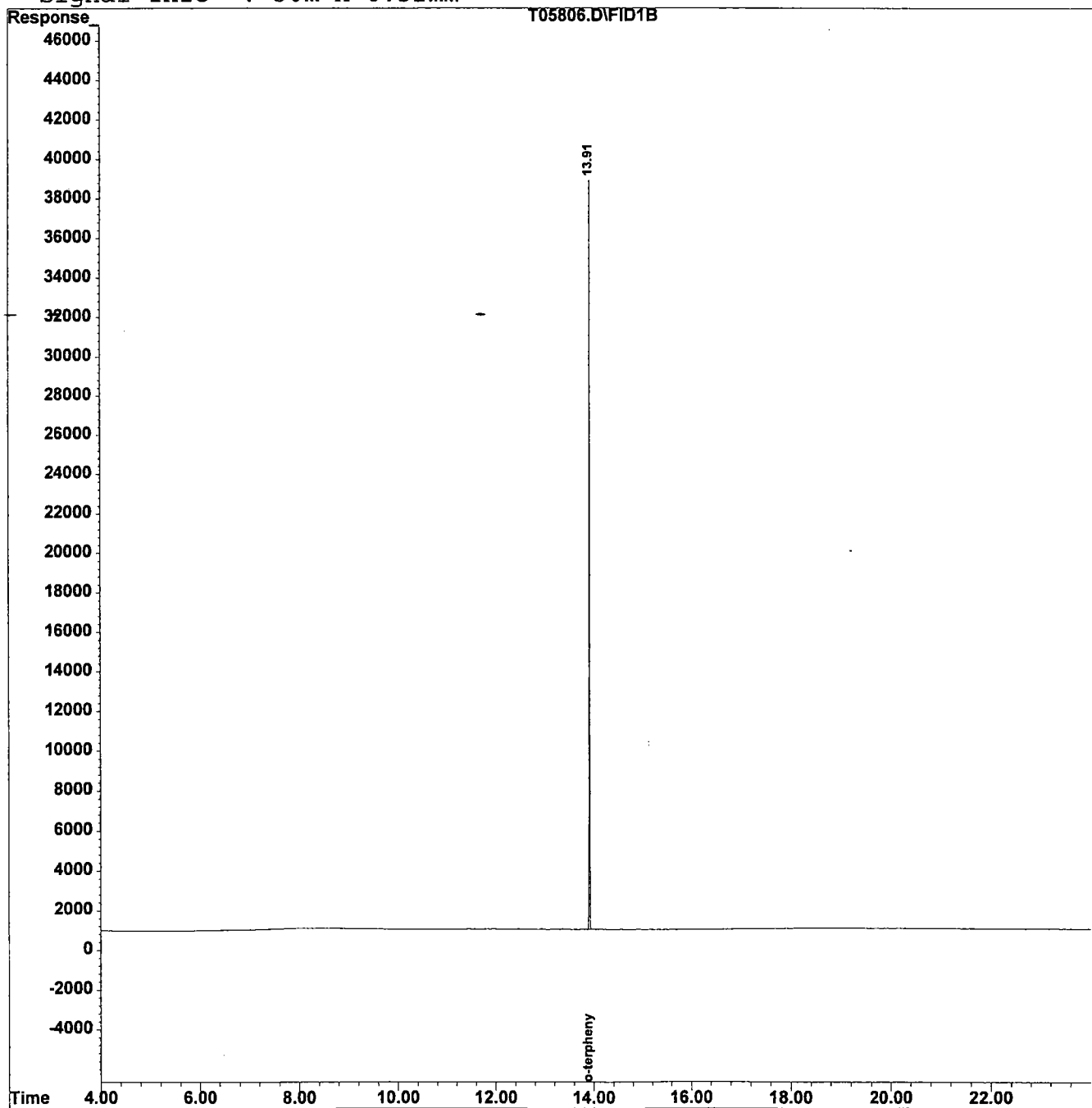
Data File : C:\HPCHEM\1\DATA\980617\T05806.D
Acq On : 19 Jun 98 4:56 pm
Sample : 3662.02
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:03 1998

Vial: 53
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05807.D Vial: 54
 Acq On : 19 Jun 98 6:26 pm Operator: Deinhardt
 Sample : 3662.03 Inst : GC/MS Ins
 Misc : Multiplr: 1.00
 IntFile : TPHCINT.E
 Quant Time: Jun 22 8:04 1998 Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.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	13.91	338384	9.790 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	97.90%#

Target Compounds

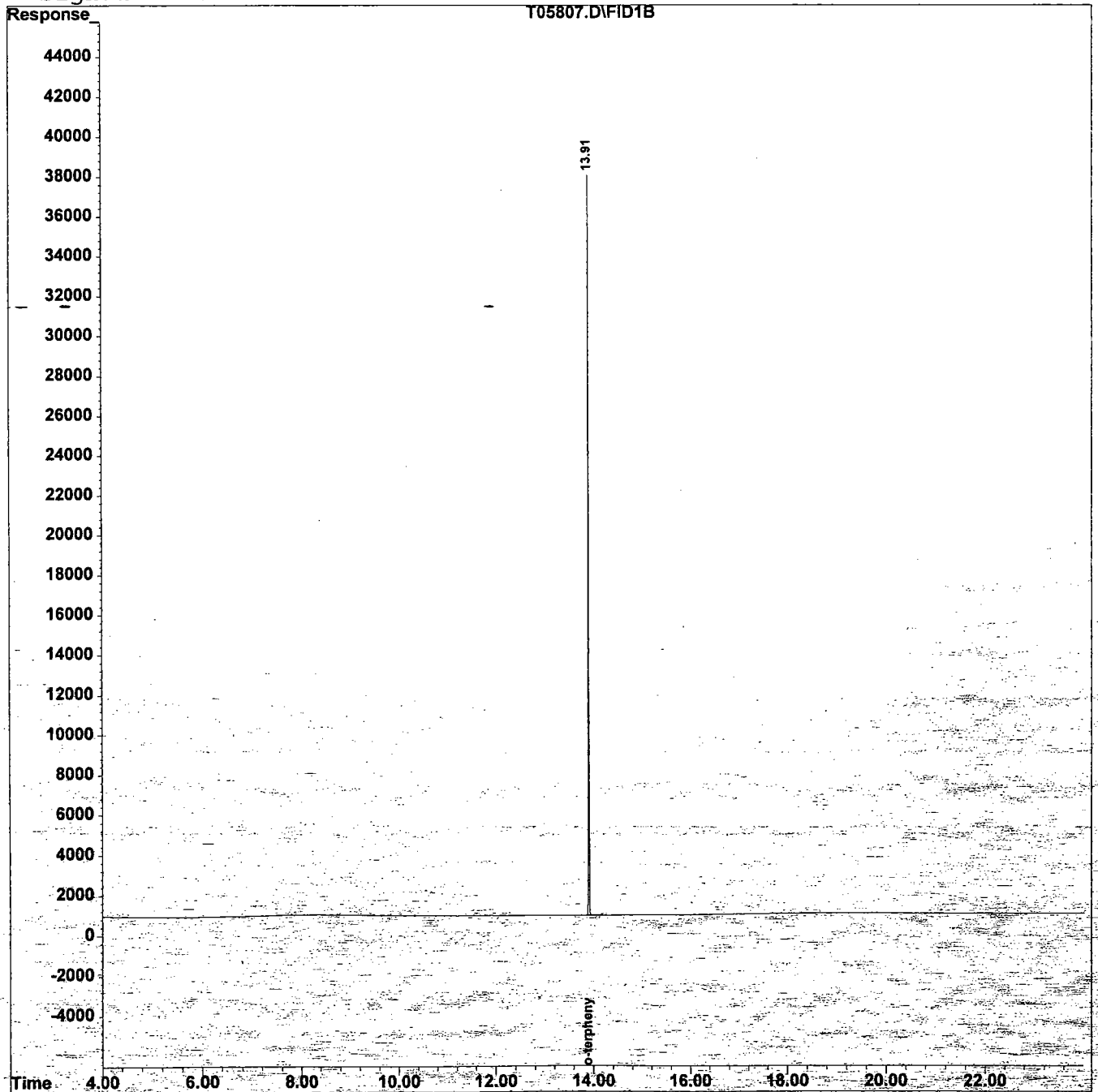
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980617\T05807.D
Acq On : 19 Jun 98 6:26 pm
Sample : 3662.03
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:04 1998

Vial: 54
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05808.D
 Acq On : 19 Jun 98 7:41 pm
 Sample : 3662.04
 Misc :
 IntFile : TPHCINT.E
 Quant Time: Jun 22 8:04 1998

Vial: 55
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.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	13.91	336444	9.734 mg/L
Spiked Amount	10.000	Range 8 - 13	Recovery = 97.34%#

Target Compounds

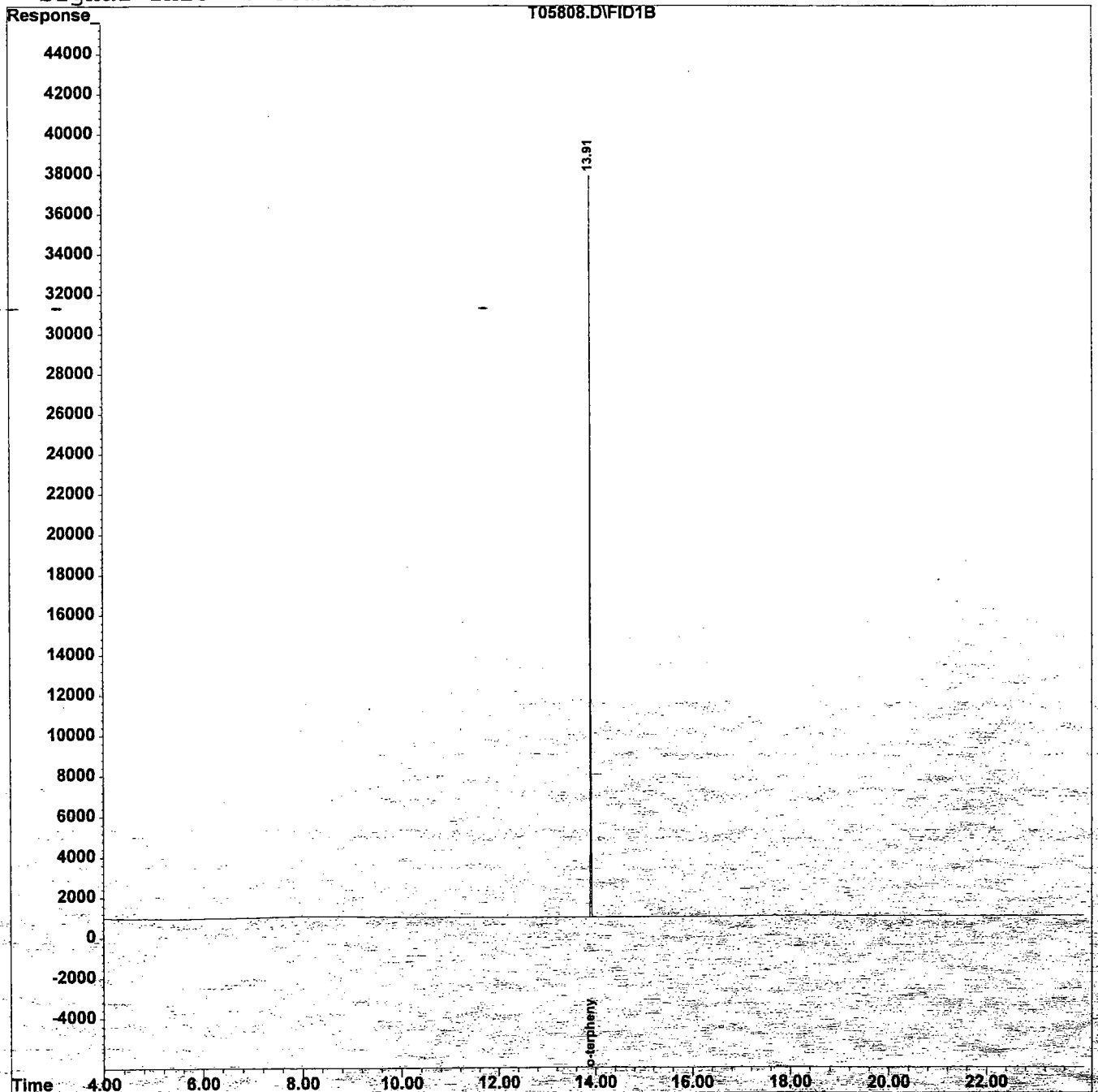
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980617\T05808.D
Acq On : 19 Jun 98 7:41 pm
Sample : 3662.04
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:04 1998 Quant Results File: TPH41.RES

Vial: 55
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05809.D
 Acq On : 19 Jun 98 8:50 pm
 Sample : 3662.05
 Misc :
 IntFile : TPHCINT.E
 Quant Time: Jun 22 8:04 1998

Vial: 56
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.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	13.91	326706	9.452 mg/L
Spiked Amount 10.000	Range 8 - 13	Recovery =	94.52%#

Target Compounds

Quantitation Report

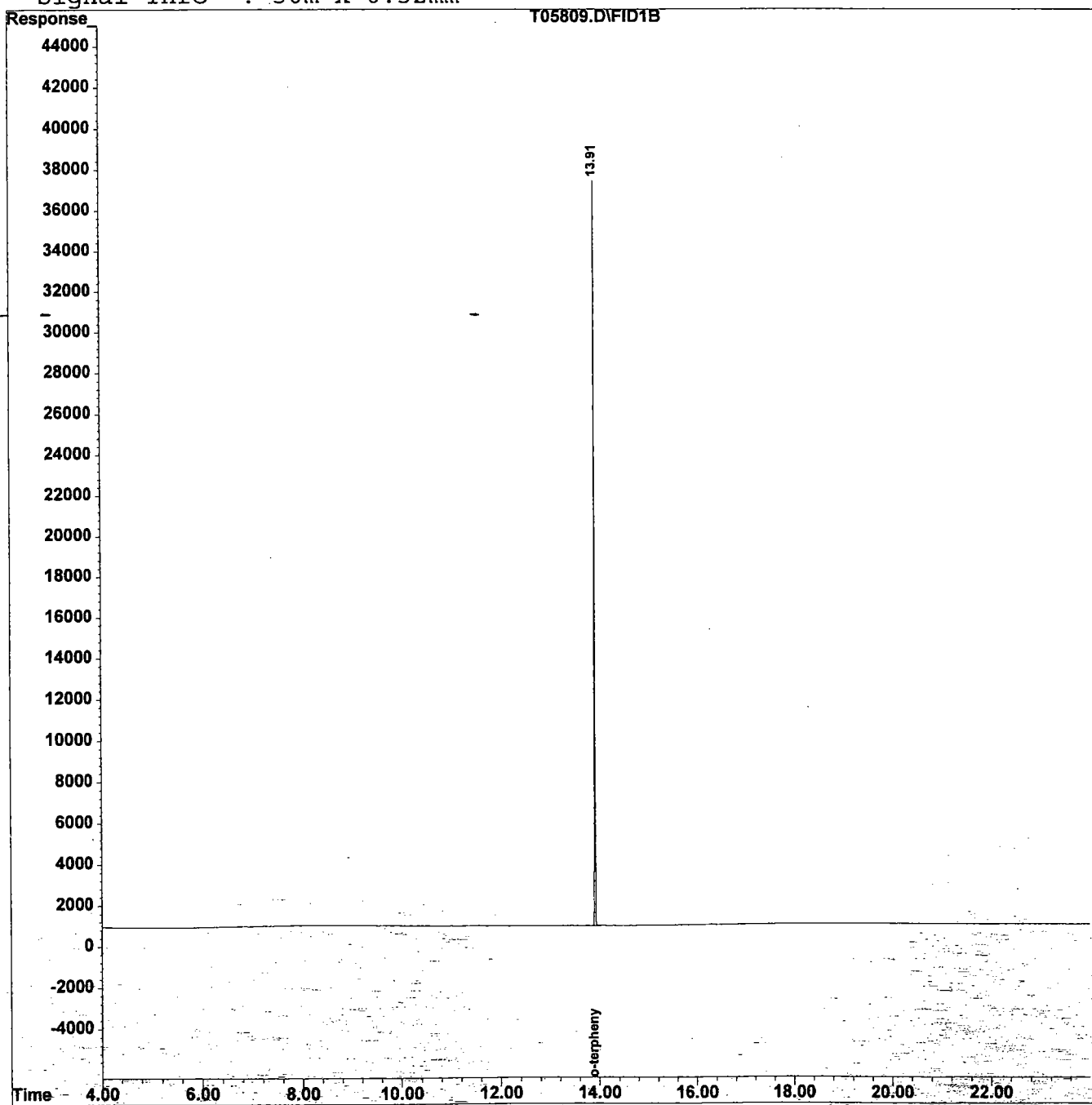
Data File : C:\HPCHEM\1\DATA\980617\T05809.D
Acq On : 19 Jun 98 8:50 pm
Sample : 3662.05
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:04 1998

Vial: 56
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05811.D
 Acq On : 19 Jun 98 10:57 pm
 Sample : 3662.06
 Misc :
 IntFile : TPHCINT.E
 Quant Time: Jun 22 8:05 1998

Vial: 58
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.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	13.91	370046	10.706 mg/L
Spiked Amount	10.000	Range 8 - 13	Recovery = 107.06%#

Target Compounds

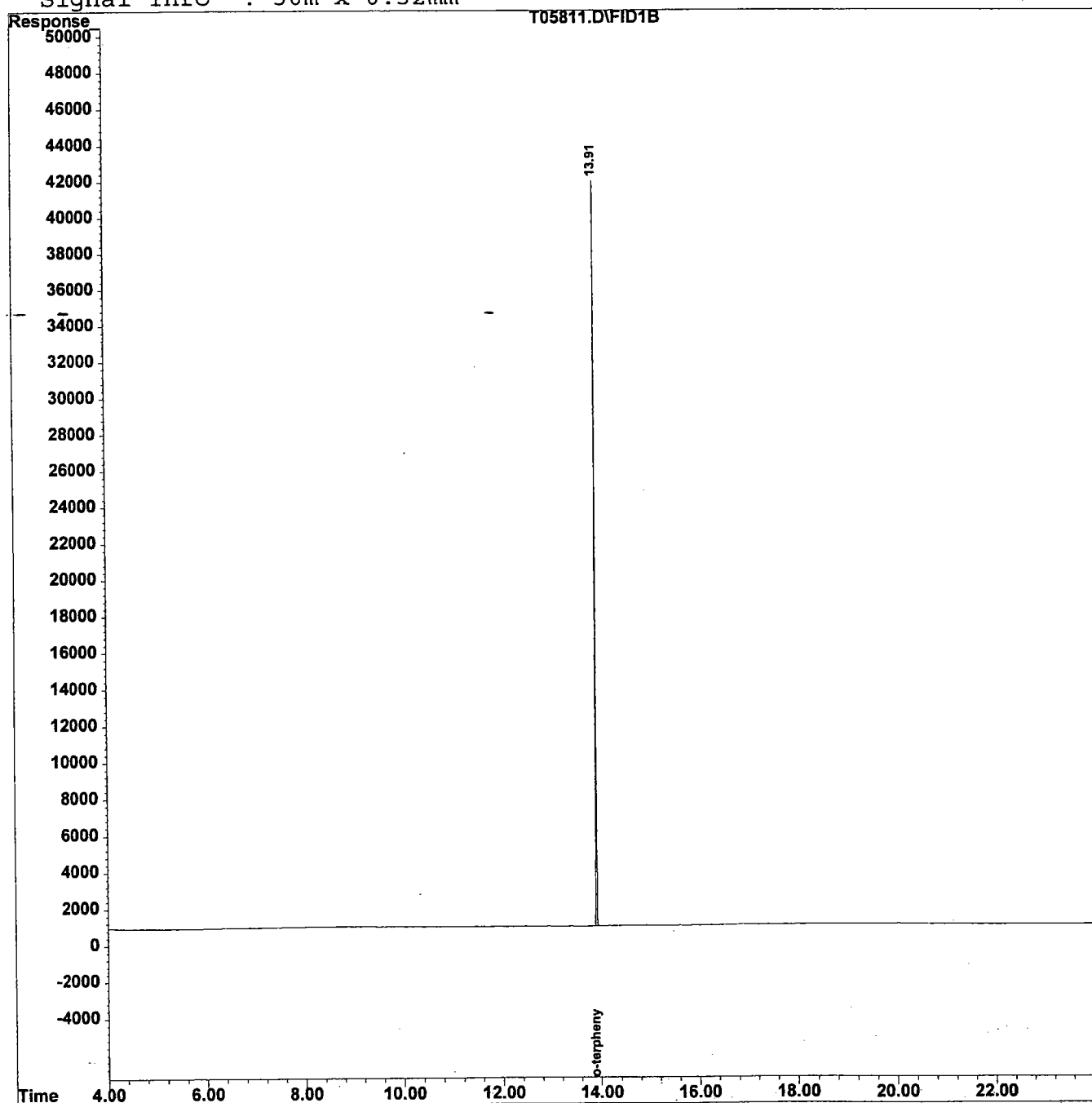
Quantitation Report

Data File : C:\HPCHEM\1\DATA\980617\T05811.D
Acq On : 19 Jun 98 10:57 pm
Sample : 3662.06
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:05 1998 Quant Results File: TPH41.RES

Vial: 58
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.M

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



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\980617\T05814.D
 Acq On : 20 Jun 98 2:00 am
 Sample : 3662.07
 Misc :
 IntFile : TPHCINT.E
 Quant Time: Jun 22 8:07 1998

Vial: 61
 Operator: Deinhardt
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
 Title : TPHC Calibration 06/05/97 21 peaks
 Last Update : Thu Jun 11 14:59:41 1998
 Response via : Initial Calibration
 DataAcq Meth : TPH41.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	13.91	353896	10.239 mg/L
Spiked Amount	10.000	Range 8 - 13	Recovery = 102.39%#

Target Compounds

Quantitation Report

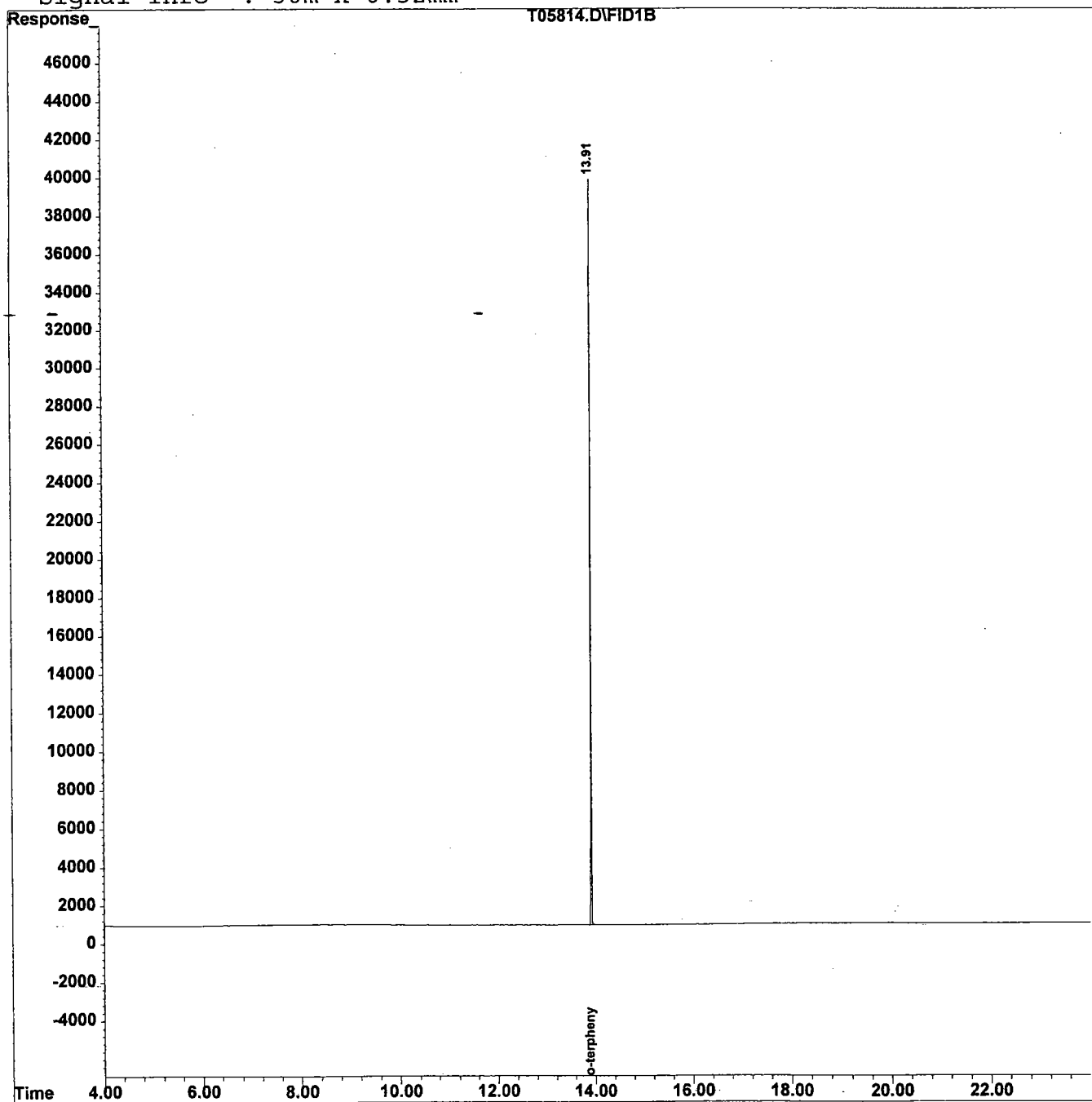
Data File : C:\HPCHEM\1\DATA\980617\T05814.D
Acq On : 20 Jun 98 2:00 am
Sample : 3662.07
Misc :
IntFile : TPHCINT.E
Quant Time: Jun 22 8:07 1998

Vial: 61
Operator: Deinhardt
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: TPH41.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH41.M (Chemstation Integrator)
Title : TPHC Calibration 06/05/97 21 peaks
Last Update : Thu Jun 11 14:59:41 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPH41.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 | <input checked="" type="checkbox"/> |
| 2. Table of Contents submitted | <input checked="" type="checkbox"/> |
| 3. Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted | <input checked="" type="checkbox"/> |
| 4. Document paginated and legible | <input checked="" type="checkbox"/> |
| 5. Chain of Custody submitted | <input checked="" type="checkbox"/> |
| 6. Samples submitted to lab within 48 hours of sample collection | <input checked="" type="checkbox"/> |
| 7. Methodology Summary submitted | <input checked="" type="checkbox"/> |
| 8. Laboratory Chronicle and Holding Time Check submitted | <input checked="" type="checkbox"/> |
| 9. Results submitted on a dry weight basis | <input checked="" type="checkbox"/> |
| 10. Method Detection Limits submitted | <input checked="" type="checkbox"/> |
| 11. Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP | <input checked="" type="checkbox"/> |

Laboratory Manager or Environmental Consultant's Signature

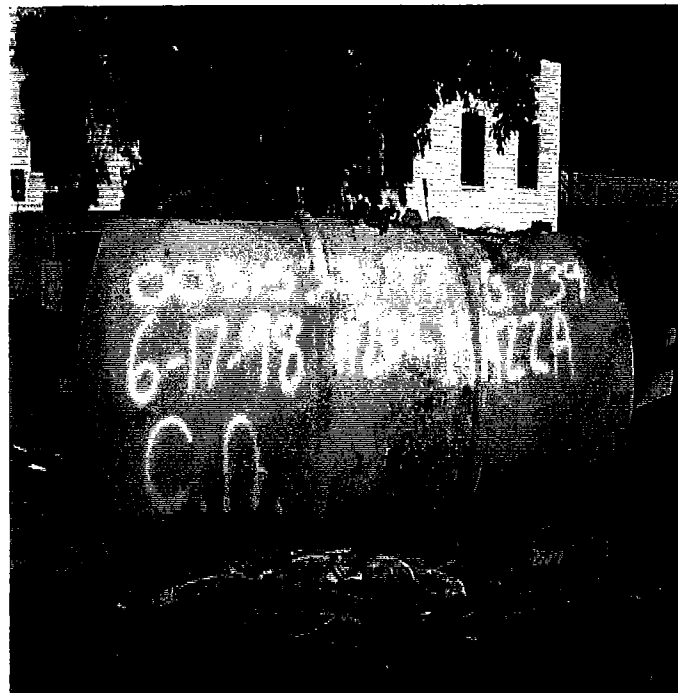
Date 7/6/93



Laboratory Certification #13461

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

APPENDIX F
PHOTOGRAPHS



June 17, 1998

PHOTOGRAPHIC LOG

UST NO. 81533-117

**Building 739
Main Post-West
Fort Monmouth**



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