United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 363
Main Post

NJDEP UST Registration No. 0081533-73
NJDEP Closure Approval No. C-93-9313
Residential Non-Regulated

February 1997

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TECHNOLOGY CORPORATION

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UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

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MAIN POST
NJDEP UST REGISTRATION NO. 0081533-73
NJDEP CLOSURE APPROVAL NO. C-93-9313
RESIDENTIAL NON-REGULATED

FEBRUARY 1997

PROJECT NO.: 09-5004-08
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PREPARED FOR:

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

PREPARED BY:

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EXECUTIVE SUMMARY

UST Closure

On July 8, 1994, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-9313 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST was a residential non-regulated tank (NJDEP Registration No. 0081533-73) located immediately adjacent to Building 363 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 0081533-73 was a 3,000-gallon No. 2 oil UST. The UST fill port was located approximately 44 feet west and 128 feet south of the UST. The tank closure was performed by Cleaning Up The Environment Inc. (CUTE).

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 equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. No holes were noted in the UST and no evidence of potentially contaminated soils was observed surrounding the tank.

On July 8, 1994, following the removal of the UST, post-excavation soil samples A, B, C, D, E, and F were collected from a total of six (6) locations along the sidewalls of the excavation. The sidewall samples were collected at a depth of 6.0 feet below ground surface (bgs). Post-excavation soil samples G, H, and DUP H were collected from a total of two (2) locations along the base of the excavation, at a depth of 9.0 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC).

On July 11, 1994, following removal of the UST fuel lines, samples 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, were collected along the former piping length of the excavation, which ran approximately 172 feet in length from the UST to the remote fill port. The samples were collected at depths ranging from 0.5 feet at the remote fill port to 3.0 feet at the UST. Samples 13 (A), and 14 (B) were collected from the piping portion of the excavation which ran approximately 17 feet south from the UST to Building 363. The piping samples were collected at a depth of 0.5 feet bgs. All samples were analyzed for TPHC.

Findings

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 363 contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994).

Samples A, B, C, D, E, F, G, H, and DUP H, collected on July 8, 1994, contained non-detectable concentrations of TPHC. Samples 1, 8, 10, 11, 12, and 13 (A), collected on July 11, 1994, contained levels of TPHC ranging in concentration from 7.68 mg/kg to 252.0 mg/kg. Samples 2, 3, 4, 5, 6, 7, 9 and 14 (B) contained non-detectable concentrations of TPHC.

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.

Site Assessment Quality Assurance

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

Discrepancies

The removal contractor collected soil samples using polystyrene scoops instead of NJDEP approved stainless steel scoops. The results of the soil samples were therefore evaluated at 50% of the actual value to compensate for any potential loss due to absorbency of the polystyrene scoop.

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. 0081533-73 at Building 363.

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1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 0081533-73, was closed at Building 363 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on July 8, 1994. 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 July 28, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3913. The UST was a steel 3,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 0081533-73 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. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 0081533-73 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. 0081533-73 are included in Appendices A and B, respectively.

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 Smith Technology Corporation. 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. 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.

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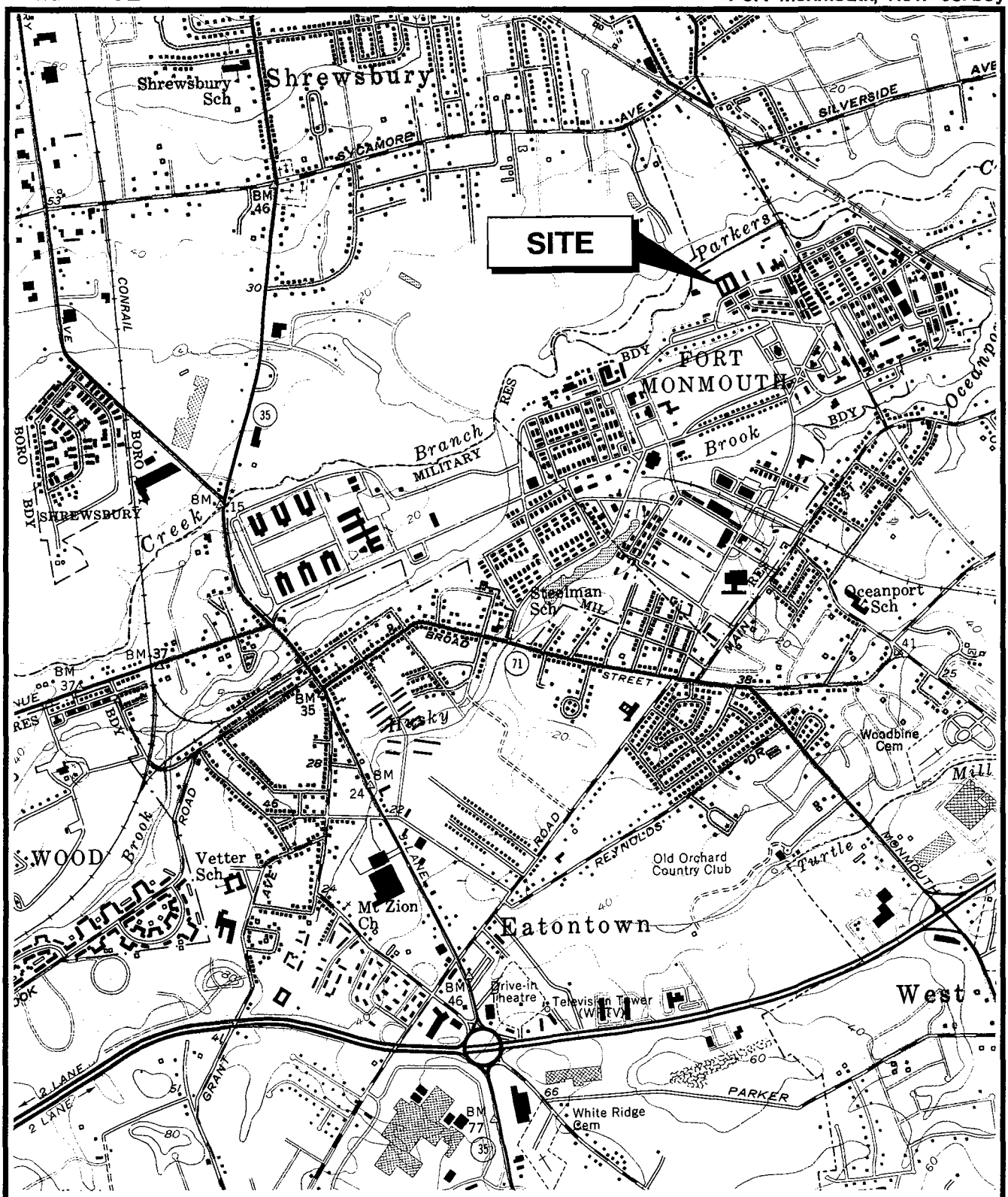
Department of Public Works
Fort Monmouth, New Jersey



Source: Long Branch, New Jersey Quadrangle

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Figure 1
Site Location Map
Building 363

1.2 SITE DESCRIPTION

Building 363 is located in the northeastern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 0081533-73 was located northwest of Building 363 and appurtenant piping ran approximately 17 feet south from the excavation to Building 363. The UST fill port was located southwest of the excavation. Its piping ran approximately 44 feet west and 128 feet south from the excavation to the remote fill port. 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 363. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. 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 Zapecza, 1990).

Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member

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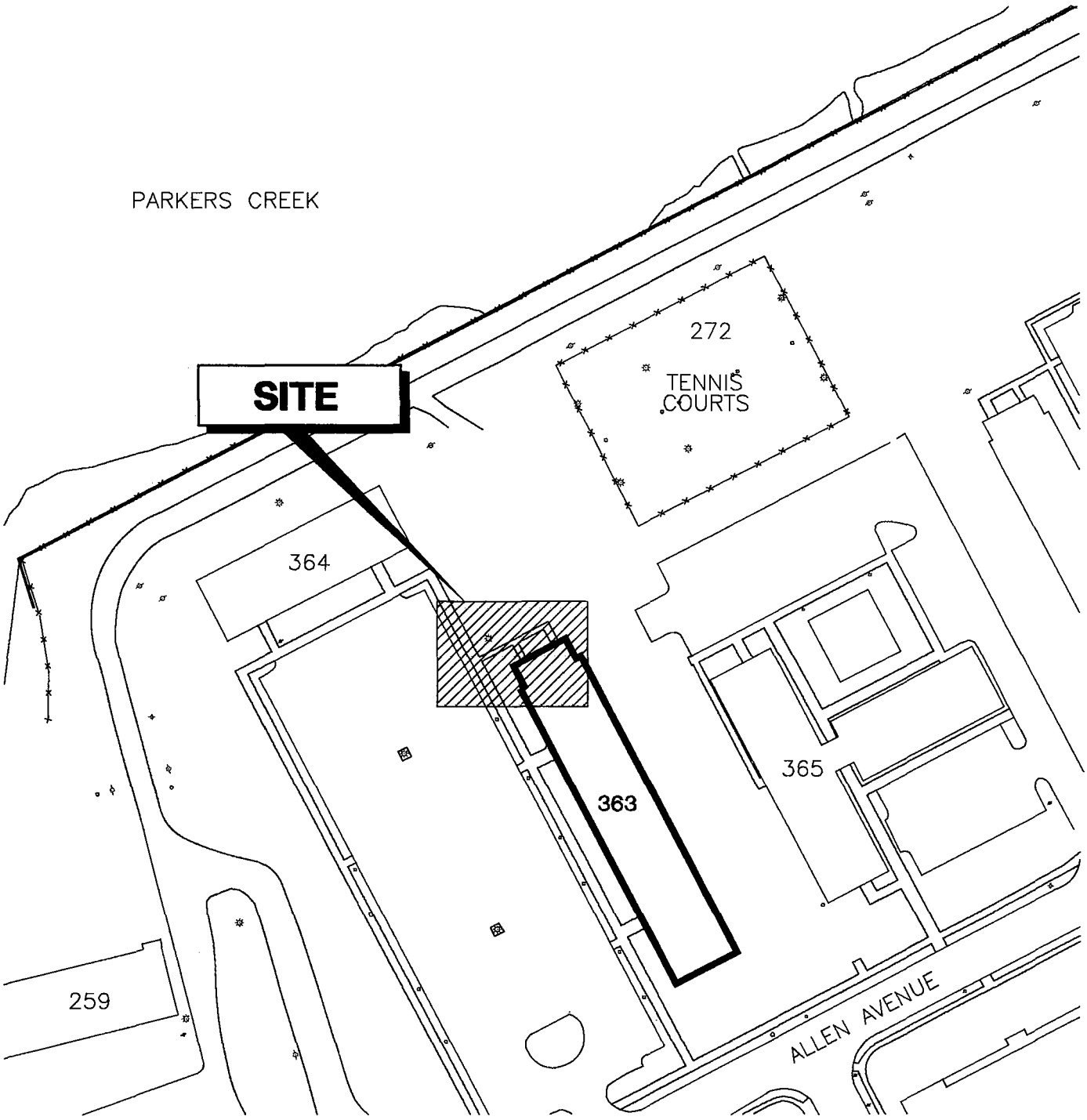

Source: Smith Technology Corporation (108)

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Figure 2
Building 363
Site Map

(Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

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

Hydrogeology

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

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

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

1.3 HEALTH AND SAFETY

Before, during, and after all decommissioning activities, hazards at the work site which may have posed a threat to the Health and Safety of all personnel who were 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 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 22 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for the waste manifest (NJA-163199).

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 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 Mazza and Sons Inc. for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on 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.

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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 he 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)
  Closure Supervisor: John Lonergan
  Phone Number: (201) 427-2881
  NJDEP Certification No.: 3248

- Subsurface Evaluator: Joseph M. Fallon
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (908) 532-1475
  NJDEP Certification No.: 000244

- 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, did not exhibit any evidence of potential contamination.

2.3 SOIL SAMPLING

On July 8, 1994, post-excavation soil samples A, B, C, D, E, and F were collected from a total of six (6) locations along the sidewalls of the UST excavation at a depth of 6.0 feet bgs. Post-excavation soil samples G, H, and DUP H were collected from a total of two (2) locations along the base of the UST excavation at a depth of 9.0 feet bgs. All samples were analyzed for TPHC.

On July 11, 1994, following removal of the UST fuel lines, samples 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, were collected along the former piping length of the excavation, which ran approximately 172 feet in length from the UST to the remote fill port. The samples were collected at depths ranging from 0.5 feet at the remote fill port to 3.0 feet at the UST. Samples 13 (A), and 14 (B) were collected from the piping portion of the excavation which ran approximately 17 feet south from the UST to Building 363. The piping samples were collected at a depth of 0.5 feet bgs. All samples were analyzed for TPHC.

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 sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have 504.0 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. 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.

TABLE 1
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SUMMARY OF SAMPLING ACTIVITIES
BUILDING 363, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
G	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
H	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
DUP H	7/08/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 1	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 2	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 3	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 4	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 5	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 6	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 7	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 8	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 9	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 10	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 11	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 12	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 13 (A)	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
Site 14 (B)	7/11/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop

* Note:

TPHC Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)

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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 from a total of eight (8) locations on July 8, 1994, and from fourteen (14) locations on July 11, 1994. 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 soil 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.

All post-excavation soil samples collected on July 8, 1994, and on July 11, 1994, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation soil samples A, B, C, D, E, F, G, H, and DUP H, collected on July 8, 1994, contained non-detectable concentrations of TPHC. Post-excavation soil samples 1, 8, 10, 11, 12, and 13 (A), collected on July 11, 1994, contained TPHC concentrations ranging from 7.68 mg/kg to 252.0 mg/kg. Samples 2, 3, 4, 5, 6, 7, 9, and 14 (B) contained non-detectable concentrations of TPHC.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 363 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.

The existing discrepancy as listed in the Executive Summary is believed to be acceptable as explained and does not warrant further investigation or explanation. Procedures have been corrected to eliminate recurrences in the future.

No further action is proposed in regard to the closure and site assessment of UST No. 0081533-73 at Building 363. Since the UST is non-regulated, this report and data will be kept on-file at Fort Monmouth. No submission to the NJDEP shall be made.

TABLE 2
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POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 363
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/6.0-6.5'	1558.1	7/08/94	7/11/94	Total Solid	--	--	92 %	--	--
				TPHC		yes	ND	10,000	--
B/6.0-6.5'	1558.2	7/08/94	7/11/94	Total Solid	--	--	92 %	--	--
				TPHC		yes	ND	10,000	--
C/6.0-6.5'	1558.3	7/08/94	7/11/94	Total Solid	--	--	89 %	--	--
				TPHC		yes	ND	10,000	--
D/6.0-6.5'	1558.4	7/08/94	7/11/94	Total Solid	--	--	91 %	--	--
				TPHC		yes	ND	10,000	--
E/6.0-6.5'	1558.5	7/08/94	7/11/94	Total Solid	--	--	90 %	--	--
				TPHC		yes	ND	10,000	--
F/6.0-6.5'	1558.6	7/08/94	7/11/94	Total Solid	--	--	92 %	--	--
				TPHC		yes	ND	10,000	--
G/9.0-9.5'	1558.7	7/08/94	7/11/94	Total Solid	--	--	90 %	--	--
				TPHC		yes	ND	10,000	--
H/9.0-9.5'	1558.8	7/08/94	7/11/94	Total Solid	--	--	90 %	--	--
				TPHC		yes	ND	10,000	--
Dup H/9.0-9.5'	1558.9	7/08/94	7/11/94	Total Solid	--	--	92 %	--	--
				TPHC		yes	ND	10,000	--

Notes:
* Cleanup criteria for total organics
-- Not applicable / does not exceed criteria
TPHC Total Petroleum Hydrocarbons

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POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 363
FT. MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
Site 1/3.0-3.5'	1560.1	7/11/94	7/12/94	Total Solid	--	--	91 %	--	--
				TPHC	6.6	yes	49.3	10,000	--
Site 2/3.0-3.5'	1560.2	7/11/94	7/12/94	Total Solid	--	--	97 %	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 3/2.5-3.0'	1560.3	7/11/94	7/12/94	Total Solid	--	--	95 %	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 4/2.0-2.5'	1560.4	7/11/94	7/12/94	Total Solid	--	--	92 %	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 5/1.5-2.0'	1560.5	7/11/94	7/12/94	Total Solid	--	--	94 %	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 6/1.0-1.5'	1560.6	7/11/94	7/12/94	Total Solid	--	--	96%	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 7/1.0-1.5'	1560.7	7/11/94	7/12/94	Total Solid	--	--	93%	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 8/1.0-1.5'	1560.8	7/11/94	7/12/94	Total Solid	--	--	94%	--	--
				TPHC	6.6	yes	16.3	10,000	--
Site 9/1.0-1.5'	1560.9	7/11/94	7/12/94	Total Solid	--	--	92%	--	--
				TPHC	6.6	yes	ND	10,000	--
Site 10/1.0-1.5'	1560.10	7/11/94	7/12/94	Total Solid	--	--	92%	--	--
				TPHC	6.6	yes	7.68	10,000	--
Site 11/0.5-1.0'	1560.11	7/11/94	7/12/94	Total Solid	--	--	96%	--	--
				TPHC	6.6	yes	44.9	10,000	--
Site 12/0.0-0.5'	1560.12	7/11/94	7/12/94	Total Solid	--	--	93%	--	--
				TPHC	6.6	yes	252.0	10,000	--
Site 13 (A) / 0.5-1.0'	1560.13	7/11/94	7/12/94	Total Solid	--	--	92%	--	--
				TPHC	6.6	yes	7.68	10,000	--
Site 14 (B) / 0.5-1.0'	1560.14	7/11/94	7/12/94	Total Solid	--	--	98%	--	--
				TPHC	6.6	yes	ND	10,000	--

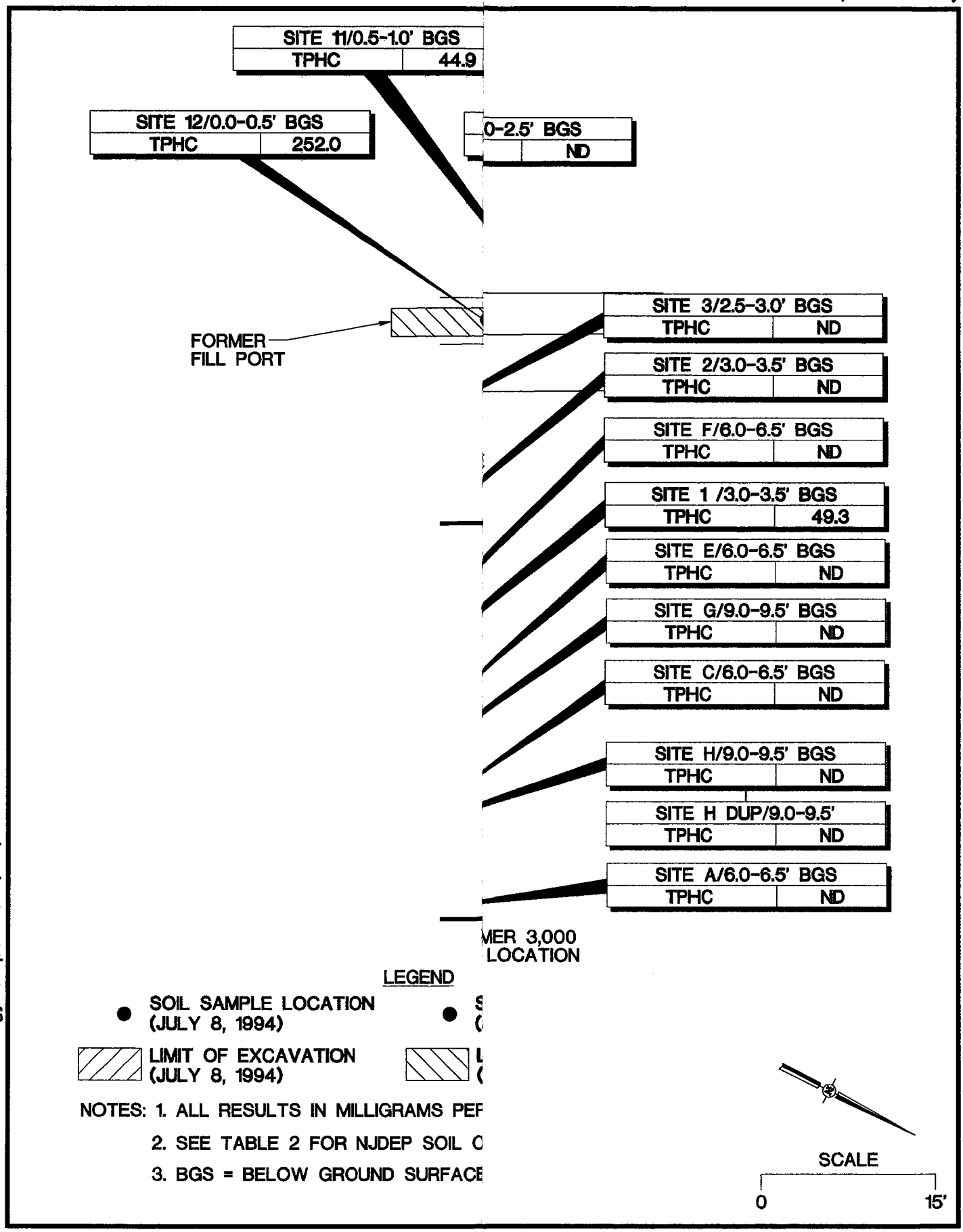
Notes:
* Cleanup criteria for total organics
-- Not applicable / does not exceed criteria
TPHC Total Petroleum Hydrocarbons

Actual soil TPHC values may be higher than reported due to absorbency by polystyrene scoops. If absorbency resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 504.0 mg/kg.

Smith Technology Corporation (Project No. 09-5004-08)

SMITH

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey



Source: Smith Technology Corporation (109)

Project No. 09-5004-08

Figure 3
Building 363
Soil Sampling Results

SMITH

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM
CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

TMS #	UST #
C-93-3913	0081533

US Army
BLDG. 363
Ft. Monmouth, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et. seq.:

Removal of: one 3,000 gallon #2 diesel UST(s) and appurtenant piping.
SITE ASSESSMENT: Soil samples will be taken every five (5) feet along the center line of each tank and one (1) soil sample for every 15 feet along all associated piping. Two (2) additional samples will be taken from around the tank and biased to the areas of highest field screened readings. Samples will be analyzed for TPHC. If sample results are greater than 1,000ppm than 25% of the samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby TELEPHONE: 908-532-1475

OWNER: TELEPHONE:

EFFECTIVE DATE: SEP 07 1993

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.

KEVIN F. KRATINA, BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

SMITH

APPENDIX B

CERTIFICATIONS

UNDERGROUND STORAGE TANK (UST) CLOSURE CERTIFICATION

BUILDING NO. 363

NJDEP UST REGISTRATION NO. 81533-73

DATE TANK REMOVED 7/8/94

IJO / CONTRACT NUMBER 91-0148

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.

NAME (Print or Type) John Lonergan

SIGNATURE

NJDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc

NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 8/16/94

SMITH

APPENDIX C

WASTE MANIFEST

UST File Copy
Bldg. ~~360~~ 363

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

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

Form Approved. OMB No. 2050-0039. Expires 9-30-9-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J 3 2 1 0 0 2 0 5 9 7 — Manifest Document No. 03199

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
US Army Communications Electronics Command
Main Post, c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS
Fort Monmouth, NJ 07703

4. Generator's Phone (908) 532-6223

A. State Manifest Document Number **NJA 1603199**

B. State Generator's ID Same

5. Transporter 1 Company Name: Freehold Cartage Inc.
6. US EPA ID Number: N J D 0 5 4 1 2 6 1 6 4

C. State Trans. ID NJDEPES2265

7. Transporter 2 Company Name
8. US EPA ID Number

D. Transporter's Phone (908) 462-1001

E. State Trans. ID

9. Designated Facility Name and Site Address
Lionetti Oil Recovery Co., Inc.
Runyon & Cheesequake Rds.
Old Bridge, NJ 08857
10. US EPA ID Number: N J D 0 8 4 0 4 4 0 6 4

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone (908) 721-0900

	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	I. Waste No.
a.	X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	001	TT	00125	G	X 7 2 2
b.	X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	001	TT	00125	G	X 7 2 2
c.	X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) combustible liquid UN 1270 PG III	001	TT	00627	G	X 7 2 2
d.	X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III	001	TT	00022	G	X 7 2 2

J. Additional Descriptions for Materials Listed Above

a. petroleum oil 90% / water X % 10 T,L
b. petroleum oil 90% / water % 10 T,L
c. petroleum oil 90% / water 10% T,L
d. petroleum oil % / X water % T,L

K. Handling Codes for Wastes Listed Above

a. T04 Filtration
b. T04 Filtration
c. T04 Filtration
d. T04 Filtration

15. Special Handling Instructions and Additional Information
NOT EPA REGULATED. REGULATED AS HAZARDOUS WASTE IN NJ.
24 HOUR EMERGENCY PHONE: 201-427-2881
NJ DECAL# 56897

11a. ERG# 27
A. UST 0081533-70
B. 0081533-72
C. UST 0081533-71
D. UST 0081533-73

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: Joseph M. Fallon — Signature: Joseph M. Fallon — Month Day Year: 05 26 94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: David S. Smith — Signature: David S. Smith — Month Day Year: 05 26 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name — Signature — Month Day Year

GENERATOR

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

CALCULATION SHEET

Building No. 363 NJDEPE Reg. No. 0081533-73

Tank Size 3000 gal Tank Void 22.5 tons

CLEAN FILL

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
	Fill	22.8	18770

TOTAL 22.8

STONE

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #

TOTAL ∅

ID#27 soil to stockpile (∅ + 22.8) - 22.5 = .3 tons ∴ no charge

Chargeable clean fill .3 ∴ no charge

Chargeable stone ∅

Joseph Sauraro Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18770

Order Date 7 / 11 / 94

Deliver Date 7 / 11 / 94

Name Big A Trucking

Address Glen Ell

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☑

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
	G 71,180		
	T 25,580	22.8 tons	
	N 45,600		

KRISTEN PAGE PUBLIC WEIGHER No. 25816 NEW JERSEY

Driver

Received

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

Sub Total	
Delivery	
N.J. Tax	
Total	

SMITH

APPENDIX D

UST DISPOSAL CERTIFICATE

BLDG 363-UST 081533-73
172'-Remote 4" Line -

MAZZA & SONS, INC.

Metal Recyclers
Auto and Truck
3230 Shafto Rd.
Tinton Falls, NJ
(908) 922-9292

NO. 1

DATE 11 July 94

Customer's Name Cute Inc

Address Ft. Monmouth, Eatontown, NJ

Make of Autos

Tires
Tank
Price

35580 LB S

[redacted]
39600 LB S
SOLD

	Weight	Price
Cast Iron		
Steel		
Lt. Iron		
Copper #1		
Copper #2		
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Radiators		
Battery		
TOTAL AMOUNT:		

Weigher C Customer Dan Ellis

SMITH

APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1558.1-.9
Sample Rec'd: 07/08/94
Analysis Start: 07/11/94
Analysis Comp: 07/11/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg.#:
Closure #:
DICAR #:
Location #: **Bldg. 363**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1558.1	Site A OVA= ND	92	ND	6.6
1558.2	Site B OVA= ND	92	ND	6.6
1558.3	Site C OVA= ND	89	ND	6.6
1558.4	Site D OVA= ND	91	ND	6.6
1558.5	Site E OVA= ND	90	ND	6.6
1558.6	Site F OVA= ND	92	ND	6.6
1558.7	Site G OVA= ND	90	ND	6.6
1558.8	Site H OVA= ND	90	ND	6.6
1558.9	Site I OVA= NA	92	ND	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1558.9 dup= 100% 1558.9 s= 114% 1558.9 sd= 105% RPD= 8.2%

Brian K. McKee
Laboratory Director

40.75 - 106
81.5 - 207
163 - 401

R.9997

U.S. ARMY FO[illegible] MONMOUTH

Bldg 363

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
1558.1	15	0	ND	6.972	6.440	.92	7.5YR 3/4	dark Brown
.2		2	ND	8.633	7.985	.92	7.5YR 3/4	dark Brown
.3		0	ND	7.871	7.017	.89	7.5YR 4/6	Strong Brown
.4		0	ND	8.261	7.486	.91	7.5YR 3/4	dark Brown
.5		0	ND	8.462	7.601	.90	7.5YR 4/6	Strong Brown
.6		2	ND	7.059	6.505	.92	7.5YR 3/3	dark Brown
.7		0	ND	8.871	7.971	.90	7.5YR 3/4	dark Brown
.8		2	ND	6.664	5.989	.90	7.5YR 3/4	dark Brown
.9		2	ND	8.642	7.933	.92	7.5YR 3/4	dark Brown
Dup .9		2	ND	—	—	.92	—	—
Spk .9		43	114	—	—	.92	—	—
Dup Spk .9		40	105	—	—	.92	—	—
1555.1 (1A) *		83	245.7	7.245	6.303	.87	5Y 3/2	dark olive gray
1557.1 (2A)		0	ND	9.385	8.162	.87	5Y 3/2	dark olive gray
1557.3 (3A)	↓	208	650	9.627	8.145	.85	10YR 3/3	dark Brown

Certification Number 13461

V. Swans TPH Result

SERV-AIR, INC.

P.O. #:

Chain of Custody

Project #:	Sampler: [signature]	Date / Time	Analysis Parameters
Customer:	Site Name: Bldg 363 C-93-3913		Start:
Phone:			Finish:

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solid	MS/MSD	OVA	Preservation Method	Remarks
1558.1	7-8-94 1510	Site A	Soil	1	X	X	X	ND		4°C
.2	1512	B		1	X	X	X	ND		
.3	1515	C		1	X	X	X	ND		
.4	1517	D		1	X	X	X	ND		
.5	1520	E		1	X	X	X	ND		
.6	1523	F		1	X	X	X	ND		
.7	1529	G		1	X	X	X	ND		OVA SN: A52114
.8	1533	H		1	X	X	X	ND		cal 1450 7/8/94:
.9		I DUP		1	X	X	X	NA		Span=3 @ Air +95ppm Methane Read 66 BKM

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
		B. MK	7/8/94 1640

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

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

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

Lab. ID #: 1558.1-.9
Sample Rec'd: 07/08/94
Analysis Start: 07/11/94
Analysis Comp: 07/11/94

Analysis: Munsel

Lab ID#	Soil Color
1558.1	7.5YR 3/4 Dark Brown
1558.2	7.5YR 3/4 Dark Brown
1558.3	7.5YR 4/6 Strong Brown
1558.4	7.5YR 3/4 Dark Brown
1558.5	7.5YR 4/6 Stong Brown
1558.6	7.5YR 3/3 Olive Brown
1558.7	7.5YR 3/4 Dark Brown
1558.8	7.5YR 3/4 Dark Brown
1558.9	7.5YR 3/4 Dark Brown

Brian K. McKee
Laboratory Director

July 11, 1994 0947

Sarah J Hubbard

Blank 0 MV

40.75 106 MV

81.5 207 MV

163 401 MV

1558.1 0 MV

1558.2 2 MV

1558.3 0 MV

1558.4 0 MV

1558.5 0 MV

1558.6 2 MV

1558.7 0 MV

1558.8 2 MV

1558.9 2 MV

1558.9 2 MV Dup.

1558.9 43 MV Spike

1558.9 40 MV Dup Spike

1555.1 83 MV

1557.1 0 MV

1557.3 208 MV

195-0970-00

PRINTED IN U.S.A.

PHC Conformance/Non-conformance Summary Report

	No	Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	✓	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		✓
3. IR Spectra submitted for standards, blanks, & samples		✓
4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.		N/A
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)		✓
6. Analysis holding time met. (If not met,list number of days exceeded for each sample)		✓

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.

Project #1558

B. McK

Brian K. McKee
Laboratory Manager

40.7 - 106
81.5 - 207
163 - 401

R.9997

U.S. ARMY FC MONMOUTH

July 11, 1994
Sa J Nibbard

Bldg 363

Enviormental Laboratory

Sample	Ext.	M.V.	Mg/Kg	Wet	Dry	%S	Munsell	Color
1558.1	15	0	ND	6.972	6.440	.92	7.5YR 3/4	dark Brown
.2		2	ND	8.633	7.985	.92	7.5YR 3/4	dark Brown
.3		0	ND	7.871	7.017	.89	7.5YR 4/6	Strong Brown
.4		0	ND	8.261	7.486	.91	7.5YR 3/4	dark Brown
.5		0	ND	8.462	7.601	.90	7.5YR 4/6	Strong Brown
.6		2	ND	7.059	6.505	.92	7.5YR 3/3	dark Brown
.7		0	ND	8.871	7.971	.90	7.5YR 3/4	dark Brown
.8		2	ND	6.664	5.989	.90	7.5YR 3/4	dark Brown
.9		2	ND	8.642	7.933	.92	7.5YR 3/4	dark Brown
Dup .9		2	ND	—	—	.92	—	—
Spk .9		43	114	—	—	.92	—	—
Dup Spk .9		40	105	—	—	.92	—	—
* 1555.1 (1A)		83	245.7	7.245	6.303	.87	5Y 3/2	dark olive gray
1557.1 (2B)		0	ND	9.385	8.162	.87	5Y 3/2	dark olive gray
1557.1 (3C)		208	650	9.627	8.145	.85	10YR 3/3	dark Brown

Certification Number 13461

Y. Swanson TPH Results

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

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

Lab. ID #: 1560.1-.14
Sample Rec'd: 07/11/94
Analysis Start: 07/12/94
Analysis Comp: 07/12/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg.#: 0081533-73
Closure #:
DICAR #:
Location #: Bldg. 363 pipe run

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1560.1	Site 1	91	49.3	6.6
1560.2	Site 2	97	ND	6.6
1560.3	Site 3	95	ND	6.6
1560.4	Site 4	92	ND	6.6
1560.5	Site 5	94	ND	6.6
1560.6	Site 6	96	ND	6.6
1560.7	Site 7	93	ND	6.6
1560.8	Site 8	94	16.3	6.6
1560.9	Site 9	92	ND	6.6
1560.10	Site 10	92	7.68	6.6
1560.11	Site 11	96	44.9	6.6
1560.12	Site 12	93	252.	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1560.8 dup= 118% 1560.8 s=80.6% 1560.8 sd=71.9% RPD=11.4%

Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1560.1-.14
Sample Rec'd: 07/11/94
Analysis Start: 07/12/94
Analysis Comp: 07/12/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg.#: 0081533-73
Closure #:
DICAR #:
Location #: Bldg. 363 pipe run

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1560.13	Site 13	92	7.68	6.6
1560.14	Site 14	98	ND	6.6

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1560.8 dup= 118% 1560.8 s=80.6% 1560.8 sd=71.9% RPD=11.4%

Brian K. McKee
Laboratory Director

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

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

Lab. ID #: 1560.1-.14
Sample Rec'd: 07/11/94
Analysis Start: 07/12/94
Analysis Comp: 07/12/94

Analysis: Munsel

Lab ID#	Soil Color
1560.1	10YR 3/3 Dark Brown
1560.2	10YR 4/6 Dark Yellowish Brown
1560.3	10YR 3/6 Dark Yellowish Brown
1560.4	10YR 3/6 Dark Yellowish Brown
1560.5	10YR 3/6 Dark Yellowish Brown
1560.6	10YR 3/1 Very Dark Gray
1560.7	10YR 3/3 Dark Brown
1560.8	10YR 3/3 Dark Brown
1560.9	10YR 3/3 Dark Brown
1560.10	10YR 3/2 Very Dark Grayish Brown
1560.11	10YR 3/2 Very Dark Grayish Brown
1560.12	10YR 3/4 Dark Yellowish Brown
1560.13	10YR 3/4 Dark Yellowish Brown
1560.14	10YR 3/4 Dark Yellowish Brown

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #:

Chain of Custody

Project #:

Customer: DPW

Phone:

Sampler: Joe Fallon

Site Name: Bldg 363 Site # Closure # 0081533 Tank 73

Date / Time: 7/11/94

Analysis Parameters: TPH % S, Munsel

Start:

Finish:

Preservation Method

Lab Sample Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Remarks
1560.1	7/11/94	1434	#1	Soil	1	
.2	7/11/94	1437	#2			
.3	7/11/94	1440	#3			
.4	7/11/94	1443	#4			
.5	7/11/94	1446	#5			
.6	7/11/94	1450	#6			
.7	7/11/94	1453	#7			
.8	7/11/94	1456	#8			
.9	7/11/94	1458	#9			
.10	7/11/94	1502	#10			
.11	7/11/94	1505	#11			

Relinquished By (signature): Joe Fallon

Date / Time: 7/11/94 1348

Received By (signature): Sarah J. Hubbard

Shipped By:

Relinquished By (signature):

Date / Time:

Received for Lab by (signature):

Date / Time:

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

Enviornmental Laboratory

1560.12	7/11/94	1510	# 2	Soil												
.13	7/11/94	1522	Feed Line A	↓	↓											
↓ .14	7/11/94	1523	Feed Line B	↓	↓											

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Joe Fallon	7/11/94 348 PM	Sarah G. Hubbard	
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time

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

Enviornmental Laboratory

Number 13461

July 12, 1994 1208
Sarah J. Hubbard

Blank
40.75 106 MV
81.5 209 MV
163 402 MV
1560.1 21 MV
1560.2 0 MV
1560.3 5 MV
1560.4 0 MV
1560.5 0 MV
1560.6 2 MV
1560.7 1 MV
1560.8 10 MV
1560.8 11 MV Dup
1560.8 38 MV Spike
1560.8 35 MV Dup Spk
1560.9 7 MV
1560.10 4 MV
1560.11 20 MV
1560.12 91 MV
1560.13 7 MV
1560.14 4 MV
1559.1 2 MV
1561.1 93 MV

PHC Conformance/Non-conformance Summary Report

	No	Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	✓	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		✓
3. IR Spectra submitted for standards, blanks, & samples		✓
4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.		N/A
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)		✓
6. Analysis holding time met. (If not met,list number of days exceeded for each sample)		✓

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.

Project #1560

B. McK

Brian K. McKee
Laboratory Manager

New Jersey Department of Environmental Protection
Division of Water Resources
Bureau of Underground Storage Tanks
CN-029, Trenton, New Jersey 08625

LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Paul Craig

Laboratory Manager (as defined in N.J.A.C. 7:18)