

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 608
Main Post Area***

**NJDEP UST Registration No. 081533-86
NJDEP Closure Approval Letter Dated
October 7, 1994**

February 1996

SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

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

BUILDING 608

**MAIN POST AREA
NJDEP UST REGISTRATION NO. 081533-86
NJDEP CLOSURE APPROVAL LETTER DATED
OCTOBER 7, 1994**

FEBRUARY 1996

**PROJECT NO.: 09-5004-07
CONTRACT NO.: DACA51-94-D-0014**

PREPARED FOR:

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

PREPARED BY:

**SMITH ENVIRONMENTAL TECHNOLOGIES CORPORATION
BROMLEY CORPORATE CENTER
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BURLINGTON, NEW JERSEY 08016**

608.DOC





TABLE OF CONTENTS

EXECUTIVE SUMMARY	iv
1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES	1
1.1 OVERVIEW	1
1.2 SITE DESCRIPTION	2
1.2.1 Geological/Hydrogeological Setting	2
1.3 HEALTH AND SAFETY	4
1.4 REMOVAL OF UNDERGROUND STORAGE TANK	4
1.4.1 General Procedures	4
1.4.2 Underground Storage Tank Excavation and Cleaning	4
1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL	5
1.6 MANAGEMENT OF EXCAVATED SOILS	5
2.0 SITE INVESTIGATION ACTIVITIES	6
2.1 OVERVIEW	6
2.2 FIELD SCREENING/MONITORING	6
2.3 SOIL SAMPLING	7
3.0 CONCLUSIONS AND RECOMMENDATIONS	8
3.1 SOIL SAMPLING RESULTS	8
3.2 CONCLUSIONS AND RECOMMENDATIONS	8

Following Page No.

TABLES

Table 1	Summary of Post-Excavation Sampling Activities	7
Table 2	Post-Excavation Soil Sampling Results	8



TABLE OF CONTENTS (CONTINUED)

Following Page No.

FIGURES

Figure 1	Site Location Map	1
Figure 2	Site Map	2
Figure 3	Soil Sampling Results	7

APPENDICES

Appendix A	NJDEP-BUST Closure Approval
Appendix B	Certifications
Appendix C	Waste Manifest
Appendix D	UST Disposal Certificate
Appendix E	Soil Analytical Data Package



EXECUTIVE SUMMARY

UST Closure

On November 29, 1994, a steel underground storage tank (UST) with fiberglass coating was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval Letter dated October 7, 1994 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-86, was located immediately adjacent to Building 608 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-86 was a 1,000-gallon No. 2 diesel UST. The UST fill port was located directly above the tank. 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 instruments for evidence of contamination. Following removal, the UST was inspected for holes. No holes were noted in the UST and no potentially contaminated soils were observed surrounding the tank.

On November 29, 1994, following removal of the UST, post-excavation soil samples were collected. Post-excavation soil samples A, B, C, D, E, and DUP E, were collected from a total of five (5) locations along the base and sidewalls of the excavation. Post-excavation soil sample G was also collected from the piping portion of the excavation, which was approximately 19 feet. All samples were analyzed for total petroleum hydrocarbons (TPHC).

On December 7, 1994, following removal of approximately 2 cubic yards of potentially contaminated soils, one post-excavation soil sample identified as "site-piping" was collected from the expanded portions of the piping length, and was 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 608, 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. 7:26E and revisions dated February 3, 1994). The samples collected on November 29, 1994 (A, B, C, D, E, and DUP E) contained TPHC concentrations ranging from 32.2 mg/kg to 346.0 mg/kg. Sample G, also collected on November 29, 1994, contained an elevated TPHC concentration of 1,750.0 mg/kg. The sample



collected on December 7, 1994 (identified as site-piping) contained a TPHC concentration of 330.0 mg/kg, which is in compliance with the NJDEP soil cleanup criteria.

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*.

Conclusions and Recommendations

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

No further action is proposed in regard to the closure and site assessment of UST No. 081533-86 at Building 608.



1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-86, was closed at Building 608 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on November 29, 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 September 2, 1994. The plan was approved on October 7, 1994. The UST was a fiberglass coated, steel 1,000-gallon tank containing No. 2 diesel oil.

Decommissioning activities for UST No. 081533-86 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. 081533-86 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval letter dated October 7, 1994, and the signed certifications for UST No. 081533-86 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.

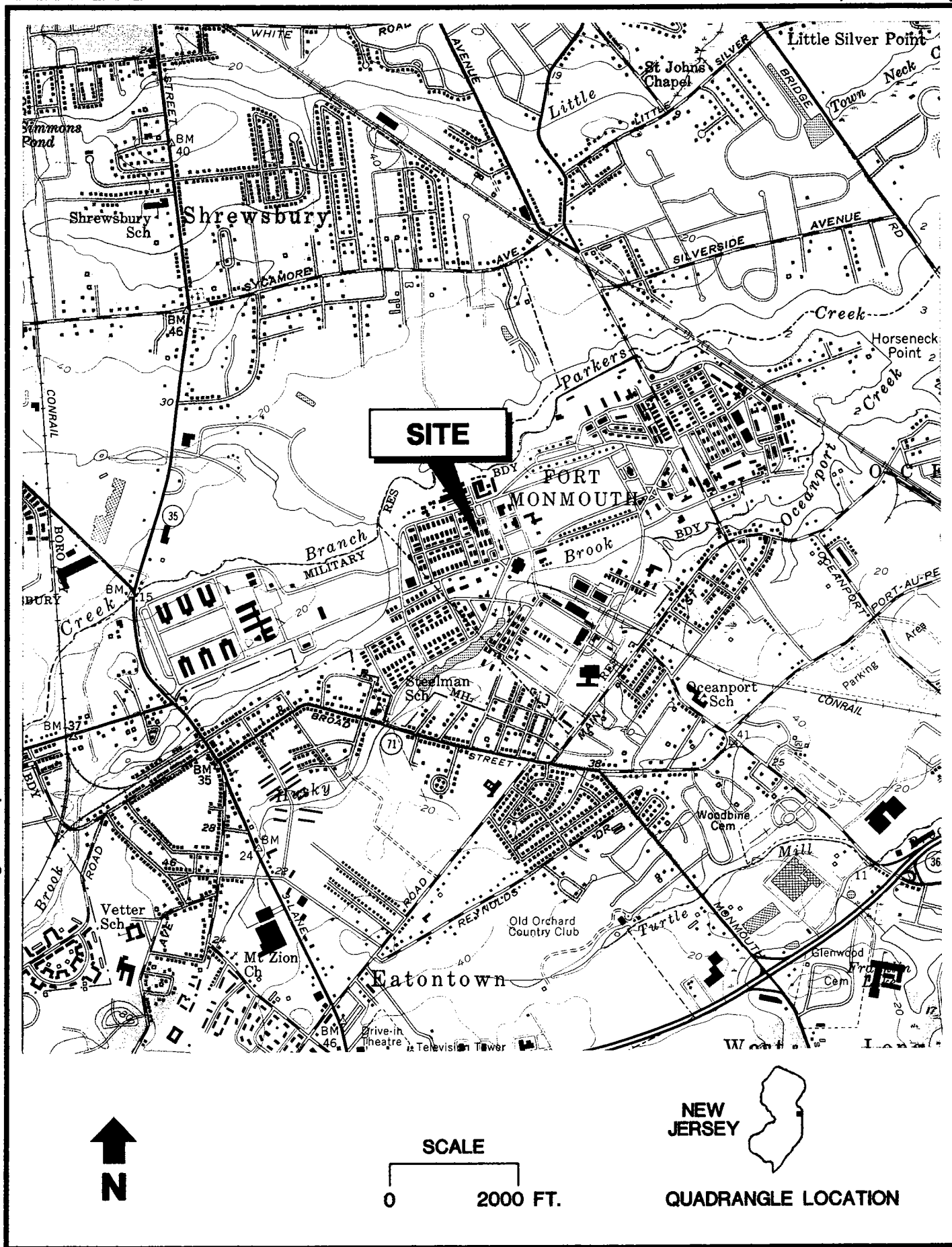
This UST Closure and Site Investigation Report has been prepared by Smith Environmental Technologies Corporation to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations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

This report was prepared using information required at the time of closure. 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.

SMITH

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

Source: BCM/Smith Environmental Technologies Corporation (028)



Project No. 09-5004-07

Figure 1
Site Location Map

1.2 SITE DESCRIPTION

Building 608 is located in the northwestern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-86 was located northwest of Building 608 and appurtenant piping ran approximately 19 feet northwest from the building to the fill port area. A site map is provided on Figure 2. The fill port area was located directly above the tank.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 608. 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.

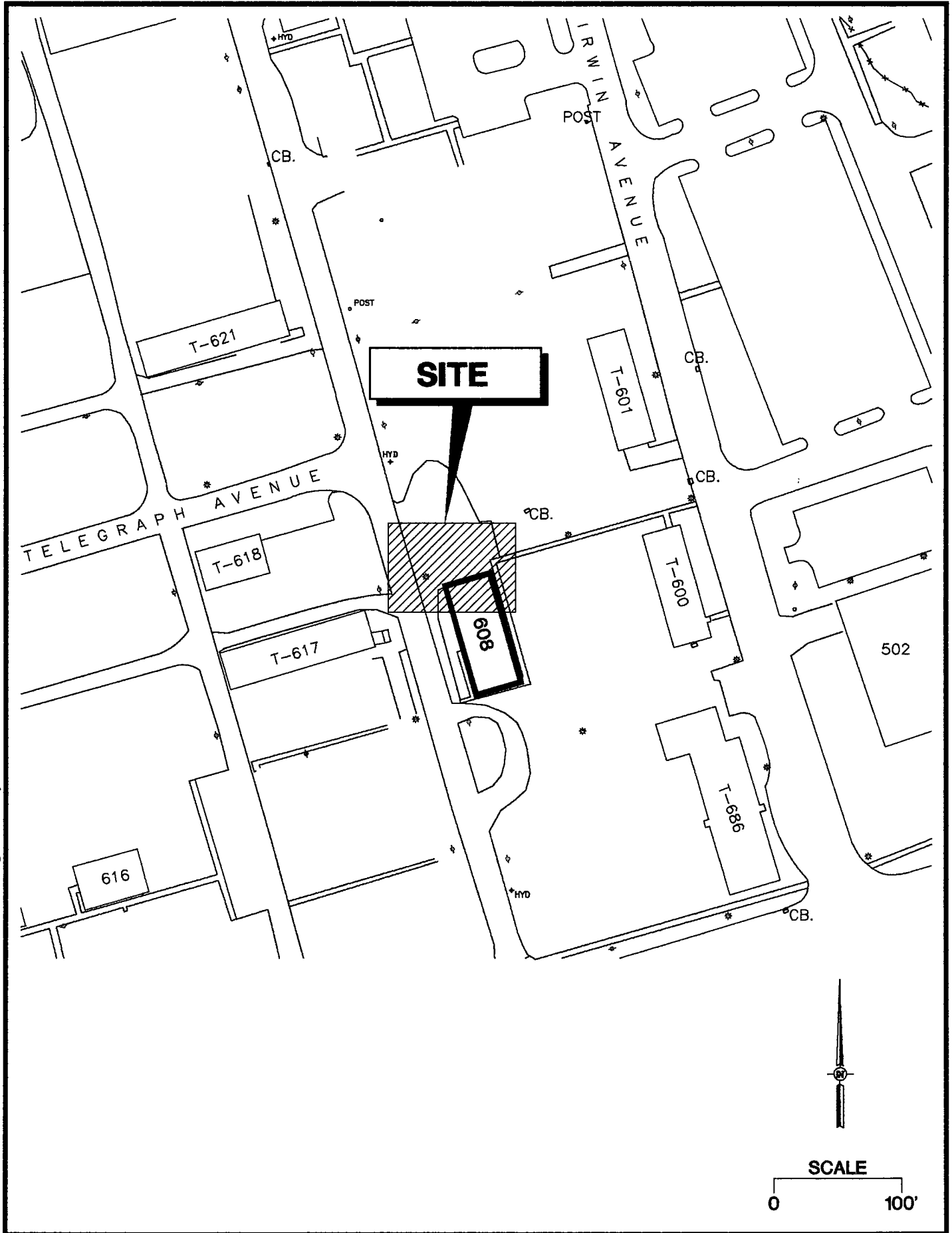
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka,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

Source: BCM/Smith Environmental Technologies Corporation (042)



Project No. 09-5004-07

Figure 2
**Building 608
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.

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 (e.g., streams, lakes)

Due to the fluvial nature of the overburden deposits (e.g., 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.

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 8 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal facility located in Old Bridge, New Jersey. Refer to Appendix C for waste manifest (No. NJA-1907257).

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 corrosion holes. No holes or punctures were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST and along the piping length were screened visually and with an OVA for evidence of contamination. No contamination was identified surrounding the former location of the UST or 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. Refer to Appendix D for UST disposal certificate.

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and visual observations, approximately 2 cubic yards of potentially contaminated soils were excavated from sample location area G on December 7, 1994. All potentially contaminated soils were stockpiled separately from other excavated material and were placed in and covered with polyethylene sheets. Potentially contaminated soils were transported to the Main Post ID 27 Soil Staging Area (T-80) prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.



2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

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

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up The Environment Inc. (CUTE)
Contact Person: Nancy Williams
Phone Number: (201)427-2881
NJDEP Company Certification No.: 0200128
- Subsurface Evaluator: Dinkerria M. Desai
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-1475
NJDEP Certification No.: E0002266
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee
Phone Number: (908)532-4359
NJDEP Company Certification No.: 13461
- Hazardous Waste Hauler: Freehold Cartage, Inc.
Contact Person: Barry Olsen
Phone Number: (908)462-1001
NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

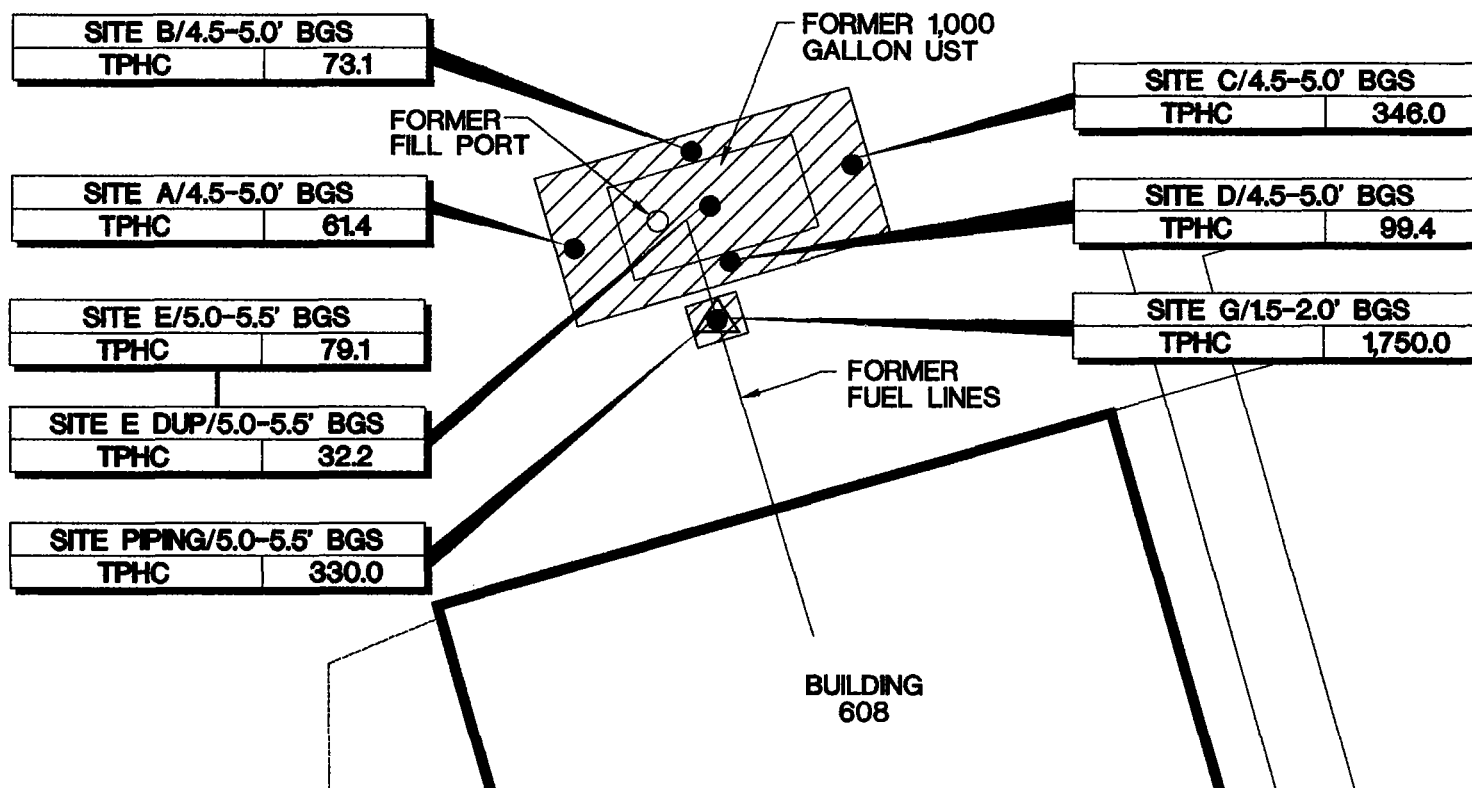
Field screening was performed by a NJDEP certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Soils were removed from the piping length until no evidence of contamination remained.

2.3 SOIL SAMPLING

On November 29, 1994, post-excavation soil samples A, B, C, D, E, and DUP E, were collected from a total of five (5) locations along the base and sidewalls of the UST excavation. One (1) post-excavation soil sample (G) was also collected immediately below the former location of piping associated with the UST. Refer to soil sampling location map on Figure 3. All samples were analyzed for TPHC.

On December 7, 1994, soils from sampling location area G were excavated due to an elevated TPHC result of 1,750.0 mg/kg. Following removal of approximately 2 cubic yards of potentially contaminated soils from this area, one post-excavated soil sample (identified as site-piping) was collected along the expanded portions of the piping length and was analyzed for TPHC. Refer to soil sampling location map on Figure 3.

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 on Table 1. The post-excavation soil samples were collected using decontaminated stainless steel scoops. 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.



LEGEND

● SOIL SAMPLE LOCATION
(NOVEMBER 29, 1994)

△ SOIL SAMPLE LOCATION
(DECEMBER 7, 1994)

▨ LIMIT OF EXCAVATION
(NOVEMBER 29, 1994)

▨ LIMIT OF EXCAVATION
(DECEMBER 7, 1994)

- NOTES: 1. ALL RESULTS IN MILLIGRAMS PER KILOGRAM (DRY WEIGHT)
2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
3. BGS = BELOW GROUND SURFACE

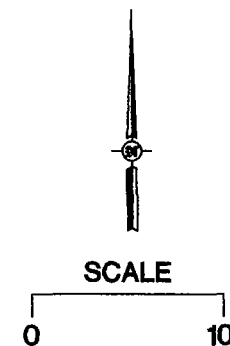


TABLE 1

SUMMARY OF SAMPLING ACTIVITIES
BUILDING 608, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
B	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
C	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
D	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
E	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
DUP E	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
G	11-29-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
Site-Piping	12-07-94	Soil	Post-Excavation	TPHC	Stainless Steel Scoop

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

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 (A, B, C, D, E, DUP E, and G) were collected from a total of six (6) locations on November 29, 1994. All samples were analyzed for TPHC. Due to the elevated TPHC concentration detected in sample G, the area was excavated and resampled on December 7, 1994. The sample was analyzed for TPHC. All post-excavation soil sample 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 on Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E. The full data package, including associated quality control data, is on file at the U.S. Army Fort Monmouth, DPW.

All post-excavation soil samples collected on November 29, 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 samples A, B, C, D, E, and DUP E, contained TPHC concentrations ranging from 32.2 mg/kg to 346.0 mg/kg. Sample G contained an elevated TPHC concentration of 1,750.0 mg/kg.

The post-excavation soil sample collected on December 7, 1994 from the piping length contained a concentration of contaminants below the NJDEP soil cleanup criteria. The post-excavation soil sample identified as site-piping contained a TPHC concentration of 330.0 mg/kg.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all of post-excavation soil samples collected from the UST closure excavation at Building 608 were below the NJDEP soil cleanup criteria for total organic contaminants.

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

No further action is proposed in regard to the closure and site assessment of UST No. 081533-86 at Building 608.

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 608
 FT. MONMOUTH, NEW JERSEY

PAGE 1 OF 1

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/4.5-5.0'	1740.1	11-29-94	12-06-94	Total Solid	--	--	93 %	--	--
				TPHC	6.6	yes	61.4	10,000	--
B/4.5-5.0'	1740.2	11-29-94	12-06-94	Total Solid	--	--	85 %	--	--
				TPHC	7.4	yes	73.1	10,000	--
C/4.5-5.0'	1740.3	11-29-94	12-06-94	Total Solid	--	--	82 %	--	--
				TPHC	6.3	yes	346.0	10,000	--
D/4.5-5.0'	1740.4	11-29-94	12-06-94	Total Solid	--	--	84 %	--	--
				TPHC	6.4	yes	99.4	10,000	--
E/5.0-5.5'	1740.5	11-29-94	12-06-94	Total Solid	--	--	95 %	--	--
				TPHC	7.3	yes	79.1	10,000	--
DUP E/5.0-5.5'	1740.6	11-29-94	12-06-94	Total Solid	--	--	95 %	--	--
				TPHC	6.6	yes	32.2	10,000	--
G/1.5-2.0'	1740.7	11-29-94	12-06-94	Total Solid	--	--	90 %	--	--
				TPHC	55.0	yes	1,750.0	10,000	--
Site-Piping/ 5.0-5.5'	1759.1	12-07-94	12-14-94	Total Solid	--	--	77 %	--	--
				TPHC	6.9	yes	330.0	10,000	--

Notes:

* Cleanup criteria for total organics

-- Not applicable / does not exceed criteria

TPHC Total Petroleum Hydrocarbons

Smith Environmental Technologies Corporation (Project No. 09-5004-07)

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SMITH

APPENDIX A

NJDEP BUST CLOSURE APPROVAL



State of New Jersey

Department of Environmental Protection

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

Mr. Dinker Desai
SELF-M-EH-EV
Department of the Army
Headquarters CECOM Fort Monmouth
Fort Monmouth, NJ 077703-5000

OCT 7 1994

Dear Mr. Desai:

Re: Underground Storage Tank Closure Approvals
Fort Monmouth Army Facility
Tinton Falls, Monmouth County

The NJDEP has reviewed the Underground Storage Tank (UST) Closure Plan Approval Requests dated September 2, 1994 for the following USTs:

<u>Tank No.</u>	<u>Building No.</u>	<u>Product</u>	<u>Size</u>	<u>Piping Length</u>
86	608	No. 2 Fuel Oil	1000	12'
103	671	No. 2 Fuel Oil	1000	14'
107	686	No. 2 Fuel Oil	2000	18'
93	620	No. 2 Fuel Oil	1000	22'
90	616	No. 2 Fuel Oil	1000	12'
106	682	No. 2 Fuel Oil	1080	22'
78	508	No. 2 Fuel Oil	1500	15'

These closure requests are consistent with the *Technical Requirements for Site Remediation* (N.J.A.C.7:26E) and are therefore acceptable to the NJDEP (with the incorporation of the comment below). A copy of this letter should be immediately accessible at each of these UST removal locations.

The NJDEP has also received a request dated September 9, 1994 from Mr. James Ott, Acting Director, which requests a variance from the Closure Approval Requests for use of polytetrafluoroethylene (PTFE) trowels to polystyrene trowels. Neither of these types of trowels is acceptable to the NJDEP. In accordance with the *Field Sampling Procedures Manual* (May 1992), only appropriately decontaminated stainless steel trowels are acceptable. Please correct the UST closure plans to reflect the requirement to use stainless steel trowels.

If you should have any questions or require additional information, please do not hesitate to contact me at (609) 633-1455.

Sincerely,

Ian R. Curtis, Case Manager
Bureau of Federal Case Management

cc. Mr. James Ott, FTMMTH

..S:\RPCE\BFCM\FTMMTH17.IRC

SMITH

APPENDIX B
CERTIFICATIONS

UST-014
2/91



FOR STATE USE ONLY

UST # _____
Date Rec'd _____
TMS # _____
Staff _____

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation

CN 029
Trenton, NJ 08625-0029
Tel. # 609-984-3156
Fax. # 609-292-5604

Scott A. Weiner -
Commissioner

Karl J. Delaney
Director

**UNDERGROUND STORAGE TANK
SITE ASSESSMENT SUMMARY**

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B*

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- Please print legibly or type.
- Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for USTs, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.
- Return one original of the form and all required attachments to the above address.
- Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.
- Explain any "No" or "N/A" response on a separate sheet.

Date of Submission _____

Bldg. 608

081533-86
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U.S. Army, Fort Monmouth, New Jersey
Directorate of Engineering and Housing, Building 167
Fort Monmouth, New Jersey County Monmouth
Telephone No. (908) 532-1475

OWNER'S NAME AND ADDRESS, if different from above

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

A. Was contamination found? ☐ Yes ☒ No If Yes, Case No. _____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)

B. The substance(s) discharged was(were) N/A

C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. October 7, 1994 letter

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for UST's, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

- North arrow and scale
- The locations of the ground water monitoring wells
- Location and depth of each soil sample and boring
- All major surface and sub-surface structures and utilities
- Approximate property boundaries
- All existing or closed underground storage tank systems, including appurtenant piping
- A cross-sectional view indicating depth of tank, stratigraphy and location of water table
- Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

- Were soil samples taken from the excavation as prescribed? ☒ Yes ☐ No ☐ N/A
- Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ N/A
- Attach the analytical results in tabular form and include the following information about each sample:
 - Customer sample number (keyed to the site map)
 - The depth of the soil sample
 - Soil boring logs
 - Method detection limit of the method used
 - QA/QC information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 0
2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:
 - a. Site diagram number for each well installed
 - b. Depth of ground water surface
 - c. Depth of screened interval
 - d. Method detection limit of the method used
 - e. Well logs
 - f. Well permit numbers
 - g. QA/QC Information as required

V. SOIL CONTAMINATION

- A. Was soil contamination found? Yes ☒ No ☒
If "Yes", please answer Question B-E
If "No", please answer Question B
- B. The highest soil contamination still remaining in the ground has been determined to be:
1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
 2. N/A ppb total B/N, N/A ppb total non-targeted B/N
 3. 346.0 ppm TPHC
 4. N/A ppb (for non-petroleum substance)
- C. Remediation of free product contaminated soils
1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface Yes ☒ No ☒
 2. Free product contaminated soils are suspected to exist below the water table Yes ☒ No ☒
 3. Free product contaminated soils are suspected to exist off the property boundaries. Yes ☒ No ☒
- D. Was the vertical and horizontal extent of contamination determined? Yes ☒ No ☒ N/A ☒
- E. Does soil contamination intersect ground water? Yes ☒ No ☒ N/A ☒

VI. GROUND WATER CONTAMINATION N/A

- A. Was ground water contamination found? Yes ☒ No ☒
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.
- B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:
1. ppb total BTEX, ppb total non-targeted VOC
 2. ppb total B/N, ppb total non-targeted B/N
 3. ppb total MTBE, ppb total TBA
 4. ppb (for non-petroleum substance)
 5. greatest thickness of separate phase product found
 6. separate phase product has been delineated Yes ☒ No ☒ N/A ☒
- C. Result(s) of well search
1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. Yes ☒ No ☒ N/A ☒
 2. The number of these wells identified is

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is _____ feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is _____ feet from the source and its screening begins at a depth of _____ feet.
2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is _____ feet below grade. This well is located _____ feet from the source.
3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is _____ feet from the source. This well is _____ feet deep and screening begins at a depth of _____ feet.

E. A plan for separate phase product recovery has been included. ☐ Yes ☐ No ☐ N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well.
☐ Yes ☐ No ☐ N/A

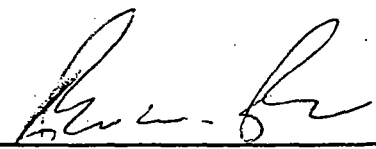
G. Delineation of contamination

1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ☐ Yes ☐ No
2. The plume is suspected to continue off the property at concentrations greater than MCLs.
☐ Yes ☐ No
3. Off property access (circle one): ☐ is being sought ☐ has been approved ☐ has been denied

VII. SITE ASSESSMENT CERTIFICATION [preparer of site assessment plan - N.J.A.C. 7:14B-6.3(b) & 9.5(a)3]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C. 7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)2, must supply the name of the certifying organization and certification number.

"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) Dinkerrai M. Desai SIGNATURE 

COMPANY NAME U.S. Fort Monmouth DATE 11/11/95
(Preparer of Site Assessment Plan)

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER E0002266

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

"I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 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) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

- A. The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(c)1].

"I certify under penalty of law that the information provided in this document is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) James Ott _____ SIGNATURE James Ott

COMPANY NAME U.S. Army, Fort Monmouth _____ DATE 2/17/96

- B. The following certification shall be signed as follows [according to the requirements of N.J.A.C. 7:14B-2.3(C)2]:

1. For a corporation, by a principal executive officer of at least the level of vice president.
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 the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"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 immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

SMTH

APPENDIX C
WASTE MANIFEST



State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

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

Form Approved: OMB No. 2050-0039, Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	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		A. State Manifest Document Number		
Main Post, c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-M		173TF		NJ 1907257		
4. Generator's Phone (908) 532-6223		PW-EV		B. State Generator's ID (Gen. Site Address)		
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Trans. ID-NJDEPE		
Freehold Cartage Inc.		INJID0541126164		S3265		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (908) 462-1001		
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. State Trans. ID-NJDEPE		
Lionetti Oil Recovery Co., Inc.		INJID084044064		F. Decal No.		
Cheesequake & Runyon Rds.				G. Transporter's Phone		
Old Bridge, NJ 08857				H. State Facility ID		
				I. Facility's Phone (908) 4721-0900		
11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, HM ID Number and Packing Group)		12. Containers		13. Total Quantity	14. Unit Wt/Vol	Waste No.
		No. Type				
a. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III		0 0 1 TIT		00008	G	X 7 2 2
b. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III		0 0 1 TIT		00100	G	X 7 2 2
c. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III		0 0 1 TIT		00100	G	X 7 2 2
d. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III		0 0 1 TIT		00200	G	X 7 2 2
Additional Descriptions for Materials Listed Above		Handling Codes for Wastes Listed Above				
Petroleum Oil 50% Water 50% T.L.		Petroleum Oil 50% Water 50% T.L.		R04=Filteration R04=Filteration		
Petroleum Oil 50% Water 50% T.L.		Petroleum Oil 50% Water 50% T.L.		R04=Filteration R04=Filteration		
15. Special Handling Instructions and Additional Information						
THIS MATERIAL IS NOT REGULATED BY THE FEDERAL EPA. IT IS REGULATED AS HAZARDOUS WASTE IN NJ. 71A-082537-86 71b.-78 71c.-706 71d.-93						
24 HOUR EMERGENCY PHONE: 201-427-2881 11 a, b, c, d ERG# 27						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.						
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Month Day Year		
Joseph M. Fallon		Joseph M. Fallon		11/12/94		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
David Smith		David Smith		11/12/94		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

SMITH

APPENDIX D

UST DISPOSAL CERTIFICATE

P. 02/02

FAX NO. 1908 636 7816

FAX NO. 201 423 8050

CUTE INC.
U. U. T. E.DEC-30-89 FRI 13:53
240 30 04 FRI 12:58

P. 01

FORT Monmouth
Eatontown NJ

MAZZA & SONS, INC.

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

NO. _____

DATE 17 Dec 89

Customer's Name

Curtis Inc

Address

103 Godwin Ave PO Box 237 Midland Park NJMake of
AutoBLAC608686

39340 LB 6

36020 LB 6

3320

Weight

Price

Cast Iron

Steel66.40

LL Iron

Copper #1

Copper #2

1/2 Copper

Brass

Alum Clean

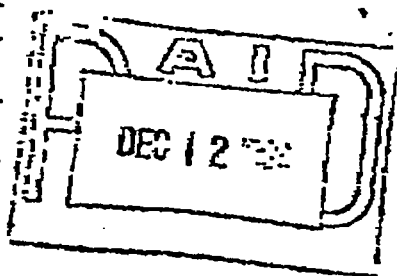
Lead

Stainless

Hardware

Battery

TOTAL AMOUNT:



Weight

Customer

Don 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 #: 1740.1-.7
Sample Rec'd: 11/29/94
Analysis Start: 12/06/94
Analysis Comp: 12/07/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: 3540A

NJDEPE UST Reg.#: 81533-86
Closure #:
DICAR #:
Location #: Bldg. 608

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1740.1	Site A, Sidewall OVA=ND	93	61.4	6.6
1740.2	Site B, Sidewall OVA=ND	85	73.1	7.4
1740.3	Site C, Sidewall OVA=ND	82	346.	6.3
1740.4	Site D, Sidewall OVA=ND	84	99.4	6.4
1740.5	Site E, CENTER OVA=ND	95	79.1	7.3
1740.6	Site F, Dup. of E. OVA=ND	95	32.2	6.6
1470.7	Site G, Feedline OVA=ND	90	1750.	55.
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
Batch dup= 108% 1740.6S= 115% 1740.6SD= 121% RPD= 4.5%



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 #: 1640.1-7
Sample Rec'd: 11/29/94
Analysis Start: 12/06/94
Analysis Comp: 12/07/94

Analysis: Munsel

[illegible]

Brian K. McK

Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #: *PW-7*

Chain of Custody

Project #:		Sampler: <i>Gage / case</i>		Date / Time <i>11/29 2-00</i>		Analysis Parameters		Start:			
Customer: <i>Dunni</i>		Site Name: <i>Bldg 608</i> <i>81533-86</i>						Finish:			
Phone:								Preservation Method			
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Remarks						
<i>1740.1</i>	<i>14-23</i>	<i>site A sidewalk</i>	<i>garb</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>Site A sidewalk</i>
<i>.2</i>	<i>14-05</i>	<i>site B sidewalk</i>	<i>garb</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>24°C</i>
<i>.3</i>	<i>14-08</i>	<i>site C "</i>	<i>"</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	
<i>.4</i>	<i>14-11</i>	<i>site D "</i>	<i>"</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>OVA analyzed</i>
<i>.5</i>	<i>14-15</i>	<i>site E center</i>	<i>"</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>with 0.1% H₂O</i>
<i>.6</i>	<i>14-19</i>	<i>site F (DUP of C)</i>	<i>"</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>2.95 ppm</i>
<i>.7</i>	<i>14-26</i>	<i>site G (feedlines)</i>	<i>"</i>	<i>1</i>	<i>X</i>	<i>X</i>	<i>X</i>			<i>ND</i>	<i>OVA #</i>
											<i>A 52114 -</i>
Relinquished By (signature) <i>[Signature]</i>		Date / Time <i>11/29/91 1500</i>		Received By (signature) <i>[Signature]</i>		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.											

12-2-94 B. M. G.

2CM/M 500 MV=CAL-0

B2

$$40.75 = 72mV$$

$$81.5 = 130mV \quad R = .9992$$

$$153 = 251mV$$

$$1740.6 mS = 66mV$$

$$1740.6 = 30mV$$

$$1740.6 mSD = 62mV$$

$$1740.6 DSP = 32mV$$

$$1740.1 = 19mV$$

$$1740.2 = 18mV$$

$$1740.3 = 74mV$$

$$1740.4 = 25mV$$

$$1740.5 = 21mV$$

$$1740.6 = 30mV \quad (\text{check})$$

~~777.7~~

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.

 NA

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 #1740

Brian K. McKee
Brian K. McKee
Laboratory Manager

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 #: 1759.1
Sample Rec'd: 12/07/94
Analysis Start: 12/14/94
Analysis Comp: 12/15/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: 3540A

NJDEPE UST Reg. #:
Closure #:
DICAR #:
Location #: Bldg. 608

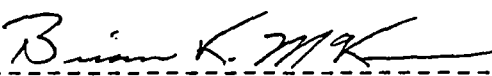
Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1759.1	Site - Piping OVA=ND	77	330.	6.9
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit

* = Silica Gel Added, NA = Not Applicable

1760.6S= 92%, 1760.6SD= 76%, RPD=19.2% 1760.6 Dup=112%

QC Limits: Recovery= +/- 24%, RPD=23%



Brian K. McKee
Laboratory Director

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

Lab. ID #: 1759.1
Sample Rec'd: 12/07/94
Analysis Start: 12/14/94
Analysis Comp: 12/15/94

[illegible]



Brian K. McKee
Laboratory Director

U.S. ARMY FORT MONMOUTH

P.O. #2...

PWS - 2

Chain of Custody

[illegible]

December 15, 1994

S. J. Hubbard
OT48

2CM/M 500 MV=CAL-HO

Std. 40.75 73 MV

Std 81.5 121 MV

Std 163 242 MV

Method Blank 0 MV

1591.1 59 MV

1760.5 18 MV

~~1760.6~~ ^{12/15/94} sample
~~1760.6~~ ¹⁴ ~~18~~ MV

1760.6 18 MV

~~1760.6~~ 15 MV ~~duplicate~~

~~1760.6~~ 149 MV ~~Spikes~~

~~1760.6~~ 123 MV ~~Spikes~~
~~Dup~~

1561.1 21 MV

1561.2 17 MV

1561.3 21 MV

1561.4 27 MV

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.

✓

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 #1759

Brian K. McKee
Brian K. McKee
Laboratory Manager