



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

6 March 2018

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Northern Bureau of Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

**SUBJECT: Parcel 83 UST 273 Dispenser Area Site Investigation Report
Request for Unrestricted Use, No Further Action Approval
Fort Monmouth, Oceanport, Monmouth County, New Jersey
PI G000000032**

Dear Mr. Joshi:

The U.S. Army Fort Monmouth (FTMM) Team has prepared this Site Investigation (SI) Report to present the results of the additional field sampling performed at the subject site.

Building 273 was a former government fueling station with one 6,000-gallon fiberglass diesel UST (Registration ID Number 90010-65) and two 10,000-gallon fiberglass gasoline USTs (Registration ID Numbers 90010-66 and 90010-67). As shown on Figure 1, Building 273 was located near the eastern boundary of the Main Post of FTMM. The USTs were removed in June 2008 and replaced with an aboveground storage tank (AST), which utilized the same dispensers until base closure in 2011. Post-excavation samples were collected during UST removal in 2008. The Army requested a No Further Action (NFA) determination from the New Jersey Department of Environmental Protection (NJDEP) in 2015. The NJDEP provided NFA approval in 2015 for the USTs but not the dispenser area (**Attachment A**).

Additional field investigations at the dispenser area was proposed by the Army in 2017 (**Attachment A**). NJDEP approved the proposed work on 29 September 2017.

Three Geoprobe borings (PAR-83-273-SB-01, PAR-83-273-SB-02, and PAR-83-273-SB-03) were installed to characterize the soils at the UST 273 dispenser area (**Figure 2**). Samples from borings PAR-83-273-SB-01 and PAR-83-273-SB-03 were collected at 2.0-2.5 feet below ground surface (ft bgs) and 5-5.5 ft bgs. Samples from boring PAR-83-273-SB-02 were collected at 2.0-2.5 and 5.5-6.0 ft bgs. Field notes and soil boring logs are provided in **Attachment B** and **Attachment C**. Soil samples from borings PAR-83-273-SB-01 and PAR-83-273-SB-02 addressed the gasoline dispensers and were analyzed for Volatile Organic Compounds (VOCs) plus tentatively identified compounds (TICs) and tert butyl alcohol (TBA) by ALS Environmental (ALS). The third sample boring (PAR-83-273-SB-03) addressed the diesel dispenser and samples were analyzed for extractable petroleum hydrocarbons (EPH) by ALS.

VOCs and SVOCs were not detected in soil samples from PAR-83-273-SB-01 and PAR-83-273-SB-02 at concentrations exceeding the current NJDEP residential direct contact soil remediation standards

(RDCSRS), non-residential soil remediation standards (NRDCSRS), or NJDEP Impact to Groundwater (IGW) Soil Screening Levels (SSLs) (**Table 1**). EPH was not detected in soil sample PAR-83-273-SB-03 at concentrations exceeding the current NJDEP EPH standard of 5,100 mg/kg for fuel oil (**Table 1**).

The information in this report supports the FTMM Team's conclusions that: 1) the UST 273 Dispenser Area has been adequately addressed; and 2) further action at the dispenser area is not warranted. An Unrestricted Use, NFA determination is requested for the dispenser area based on the information provided in this report.

Thank you for reviewing this request; we look forward to your approval and/or comments. Our technical Point of Contact is Kent Friesen at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 380-7064; william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

cc: Ashish Joshi (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Joseph Fallon, FMERA (e-mail)
Cris Grill, Parsons (e-mail)

Figures:

Figure 1 UST 273 Site Location
Figure 2 UST 273 Site Layout and Sampling Locations

Tables:

Table 1 –2017 UST 273 Dispenser Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Attachments:

- A. UST 273 Correspondence
- B. Field Notes
- C. Soil Boring Logs



New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document:

- "Parcel 83 UST 273 Dispenser Area Site Investigation Report, Request for Unrestricted Use, No Further Action Approval, Fort Monmouth, Monmouth County, Oceanport, New Jersey" (06 March 2018)

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin

Representative First Name: William Representative Last Name: Colvin

Title: Fort Monmouth BRAC Environmental Coordinator (BEC)

Phone Number: (732) 380-7064 Ext: Fax:

Mailing Address: P.O. Box 148

City/Town: Oceanport State: NJ Zip Code: 07757

Email Address: william.r.colvin18.civ@mail.mil

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

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

Signature:  Date: 06 March 2018

Name/Title: William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

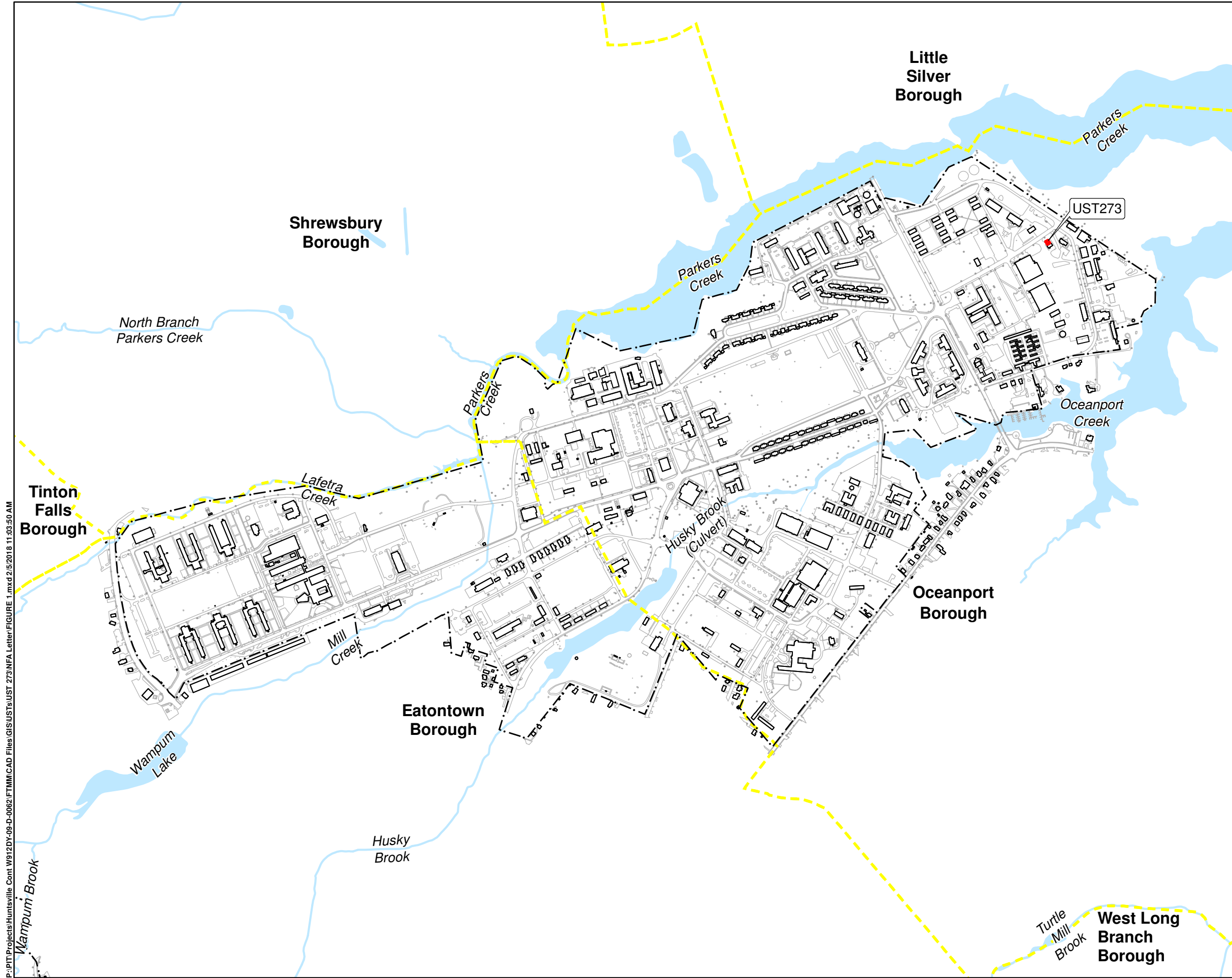
Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, New Jersey 07927-1112

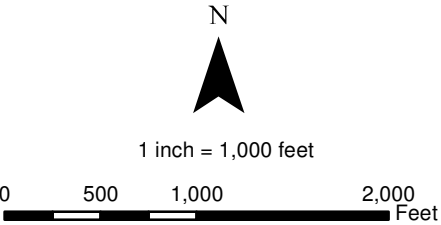
FIGURES

Figure 1 –UST 273 Location

Figure 2 – UST 273 Site Layout and Sampling Locations

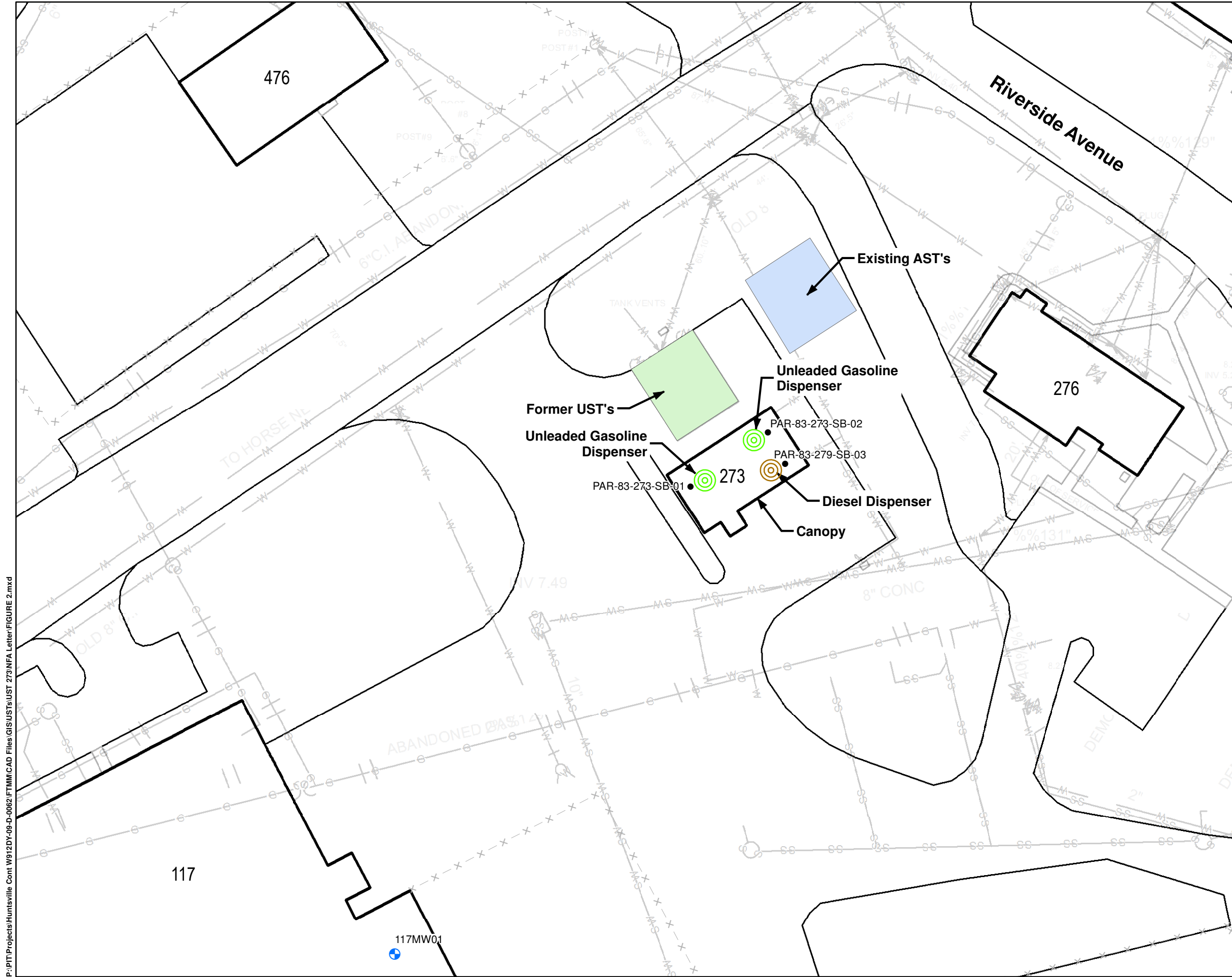


- LEGEND:**
- Approximate location of UST273
 - Installation Boundary
 - Municipal Boundary
 - Surface Water Feature



Source: FTMM Supplied CAD, 2013; ESRI Data and Maps, 2011; USGS NHD, 2012.

PARSONS 401 Diamond Drive NW, Huntsville AL		Fort Monmouth New Jersey	
UST 273 LOCATION			
CREATED BY: RR		REVIEWED BY: AM	
DATE: FEB. 2018		FIGURE NUMBER: FIGURE 1	
PROJECT NUMBER: 748810-06031		FILE: FIGURE 1.mxd	



LEGEND:

- Soil Boring (2017)
- Shallow Monitoring Well
- × — Fenceline
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- [] Installation Boundary
- Existing Above Ground Storage
- Former Underground Storage Tank

Source: FTMM Supplied CAD; Shaw Environmental 2008.

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

**UST 273 SITE LAYOUT
AND SAMPLING LOCATIONS**

CREATED BY: RR	REVIEWED BY: AM
DATE: FEB. 2018	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-02130	FILE: FIGURE 2.mxd

Table
2017 UST 273 Soil Sampling Results – Comparison to NJDEP Soil
Remediation Standards

TABLE 1
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 83 273 UST
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non- Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-83-273-SB-01		PAR-83-273-SB-02		PAR-83-273-SB-03	
Sample ID				PAR-83-273-SB-01-2-2.5	PAR-83-273-SB-01-5-5.5	PAR-83-273-SB-02-2-2.5	PAR-83-273-SB-02-5-5-6	PAR-83-273-SB-03-2-2.5	PAR-83-273-SB-03-5-5.5
Sample Date				11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017	11/13/2017
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1,1-Trichloroethane	160,000	NLE	0.3	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1,2,2-Tetrachloroethane	1	3	0.007	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1,2-Trichloroethane	2	6	0.02	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1-Dichloroethane	8	24	0.2	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1-Dichloroethene	11	150	0.008	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,1-Dichloropropene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2,3-Trichlorobenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2,3-Trichloropropane	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2,4-Trichlorobenzene	73	820	0.7	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2,4-Trimethylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	< 0.0023	< 0.0023	< 0.0024	< 0.0024	NA	NA
1,2-Dibromoethane	0.008	0.04	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2-Dichlorobenzene	5,300	59,000	17	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2-Dichloroethane	0.9	3	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,2-Dichloropropane	2	5	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,3,5-Trimethylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,3-Dichlorobenzene	5,300	59,000	19	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,3-Dichloropropane	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
1,4-Dichlorobenzene	5	13	2	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
2,2-Dichloropropane	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
2-Chlorotoluene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Acetone	70,000	NLE	19	0.013	0.028	0.0087 J	0.0076 J	NA	NA
Benzene	2	5	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Bromobenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Bromochloromethane	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Bromodichloromethane	1	3	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Bromoform	81	280	0.03	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Carbon tetrachloride	2	4	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Chlorobenzene	510	7,400	0.6	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Chlorodibromomethane	3	8	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Chloroethane	220	1,100	NLE	< 0.0023	< 0.0023	< 0.0024	< 0.0024	NA	NA
Chloroform	0.6	2	0.4	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Cis-1,2-Dichloroethene	230	560	0.3	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Cis-1,3-Dichloropropene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Cymene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Dichlorodifluoromethane	490	230,000	39	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Ethyl benzene	7,800	110,000	13	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Hexachlorobutadiene	6	25	0.9	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Isopropylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Meta/Para Xylene	NLE	NLE	NLE	< 0.0018	< 0.0018	< 0.0019	< 0.0019	NA	NA
Methyl bromide	25	59	0.04	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Methyl butyl ketone	NLE	NLE	NLE	< 0.0045 UJ	< 0.0046 UJ	< 0.0048 UJ	< 0.0047 UJ	NA	NA
Methyl chloride	4	12	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Methyl ethyl ketone	3,100	44,000	0.9	< 0.0045	< 0.0046	< 0.0048	< 0.0047	NA	NA
Methyl isobutyl ketone	NLE	NLE	NLE	< 0.0045	< 0.0046	< 0.0048	< 0.0047	NA	NA
Methyl Tertbutyl Ether	110	320	0.2	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Methylene chloride	46	230	0.01	0.0032 J+	< 0.0009	0.0019 J+	0.0074 J+	NA	NA
Naphthalene	6	17	25	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
n-Butylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Ortho Xylene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
p-Chlorotoluene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Propylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
sec-Butylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Styrene	90	260	3	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Tert Butyl Alcohol	1,400	11,000	0.3	< 0.0045	< 0.0046	< 0.0048	< 0.0047	NA	NA
tert-Butylbenzene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Tetrachloroethene	43	1,500	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Toluene	6,300	91,000	7	0.0013 J	< 0.0009	< 0.001	0.0011 J	NA	NA
Trans-1,2-Dichloroethene	300	720	0.6	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Trans-1,3-Dichloropropene	NLE	NLE	NLE	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Trichloroethene	3	10	0.01	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Trichlorofluoromethane	23,000	340,000	34	0.0027	0.0005 J	< 0.001	< 0.001	NA	NA
Vinyl chloride	0.7	2	0.005	< 0.0009	< 0.0009	< 0.001	< 0.001	NA	NA
Extractable/Volatile Petroleum Hydrocarbons (mg/kg)									
EPH (C9-C40)	5,100	NLE	NLE	NA	NA	NA	NA	1.2 J	10.7

Footnote:

- 1) All historical data collected prior to 2013 are reported as provided by others.
- 2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.
- 3) NLE = no limit established.
- 4) ND = not detected in any background sample, no background concentration available.
- 5) Bold chemical detection
- 6) SS = Site Specific action level, see "Specific Chemical Class (or Parameter)" footnote for details.

7) Chemical result qualifiers are assigned by the laboratory and are evaluated and modified (if necessary) during the data validation.

[blank] = detect, i.e. detected chemical result value.	J = estimated detected value due to a concetration below the reporting limit or due to discrepancies in meeting certain analyte-specific quality control.
B =Compound detected in the sample at a concentration less than or equal to 5 times (10 times for common lab contaminants) the blank concentration.	E (or ER) = Estimated result.
R = Rejected, data validation rejected the results.	D = Results from dilution of sample.
U = non-detect, i.e. not detected at or above this value.	J-DL = Elevated sample detection limit due to difficult sample matrix.
U-DL = Elevated sample detection limit due to difficult sample matrix.	JN = Tentatively identified compound, estimated concentration.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.	

8) Specific Chemical Classes (or Parameters) comments or notes regarding how data is displayed, compared to Action Levels, or represented in this table.

9) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Residential Direct Contact Soil Remediation Standard.

####

There are no NJDEP soil standards for individual PCB Aroclors, therefore the total PCB NJDEP standards were used for individual Aroclors.

- Cell Shade values represent a result that is above the NJ Non-Residential Direct Contact Soil Remediation Standard.

###

- Cell Shade values represent a result that is above the NJ Impact to GW Soil Screening Level

###

- Cell Shade values represent a result that is above both the NJ Residential, Non-Residential, AND NJ Impact to GW Soil Screening Level Direct Contact Soil Remediation Standard.

###

- Cell Shade values represent a result that is above both the NJ Residential and Non-Residential Direct Contact Soil Remediation Standard.

###

10) Criteria action level source document and web address.

- The NJ Residential Direct Contact Soil Remediation Standard refers to the NJDEP's Sept 18, 2017 Remediation Standards

http://www.nj.gov/dep/rules/rules/njac7_26d.pdf

- The NJ Non-Residential Direct Contact Soil Remediation Standard refers to the NJDEP's Sept 18, 2017 Remediation Standards

http://www.nj.gov/dep/rules/rules/njac7_26d.pdf

- The NJ Impact to GW Soil Screening Level criteria refers to the Development of Site Specific Impact to Ground Water Soil Remediation Standards - Nov 2013 revised

http://www.nj.gov/dep/srp/guidance/rs/partition_equation.pdf

Attachment A
Correspondence



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

29 August 2017

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Northern Bureau of Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

**SUBJECT: Letter Work Plan for UST 273 Dispensers, Fort Monmouth, New Jersey
PI G000000032**

Dear Mr. Joshi:

The purpose of this work plan is to characterize the soil at the Underground Storage Tank (UST) 273 Dispenser Area. The New Jersey Department of Environmental Protection (NJDEP) approved a No Further Action (NFA) determination for the USTs associated with Building 273, but the NFA did not include the dispenser area (**Attachment 1**). Soil sampling is proposed to determine if a fuel release has impacted soil at the dispenser area. The results of this sampling will be presented in a letter report.

Building 273 was a former government fueling station with one 6,000-gallon diesel UST and two 10,000 gasoline USTs that were removed in June 2008. The USTs were replaced with an aboveground storage tank (AST), which utilized the same dispensers, until base closure in 2011.

Three primary Geoprobe borings will be installed for soil characterization at the UST 273 Dispenser Area as shown on **Figure 1**. Boring 273-SB-01, 273-SB-02, and 273-SB-03 will be installed adjacent to each dispenser. Two soil samples will be collected from each boring:

- An upper soil sample will be collected from approximately 2.0-2.5 ft bgs (or another interval representative of potentially contaminated vadose zone soil below the dispenser piping); and
- An intermediate sample will be collected just above the water table from approximately 6.0-6.5 ft bgs.

Soil samples from borings 273-SB-01 and 273-SB-02 will be analyzed in accordance with the requirements for unleaded gasoline in Table 2-1 of the New Jersey Administrative Code (NJAC) 7:26E *Technical Requirements for Site Remediation*. Both samples from each boring will be analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs) and tertiary butyl alcohol (TBA). Soil samples from boring 273-SB-03 will be analyzed in accordance with the requirements for diesel in Table 2-1 of NJAC 7:26E; specifically, for extractable petroleum hydrocarbons (EPH). Any samples with EPH detected above 1,000 mg/kg will also be analyzed for two semivolatile organic compounds (SVOCs): naphthalene and 2-methylnaphthalene. A summary of the proposed soil sampling and analysis is presented in **Table 1**.

Thank you for reviewing this work plan. We look forward to your comments and approval prior to implementing this plan (currently scheduled to begin on 2 October 2017). Our technical Point of Contact is Kent Friesen who you may contact directly at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 380-7064; william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

Attachments:

Figure 1 – UST 273 Dispensers Area Proposed Sampling Locations

Table 1 – Summary of Proposed Sampling for UST 273 Dispenser Area

Attachment 1 - NJDEP Letter to the Army dated 13 October 2015, re: *No Further Action Request Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks, Fort Monmouth, New Jersey.*

cc: Ashish Joshi (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Cris Grill, Parsons (e-mail)

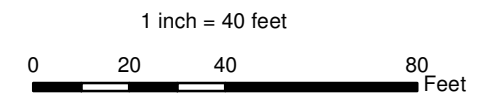
Figure 1
UST 273 Dispenser Area Proposed Sampling Locations

P:\PTT\Projects\Huntsville Cont W912DY-09-D-0062\FTMMCAD Files\GIS\USTs\UST 273\FIGURE 1.mxd



LEGEND:

- Proposed Sampling Location
- Shallow Monitoring Well
- Fenceline
- Surface Water Feature
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Installation Boundary
- Existing Above Ground Storage
- Former Underground Storage Tank
- Generalized Groundwater Flow Direction



Source: FTMM Supplied CAD; Shaw Environmental 2008.

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

**UST 273 DISPENSERS AREA
PROPOSED SAMPLING LOCATIONS**

CREATED BY: RR	REVIEWED BY: AM
DATE: AUG. 2017	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-02130	FILE: FIGURE 1.mxd

Table 1
Summary of Proposed Sampling for UST 273 Dispenser Area

TABLE 1
SUMMARY OF PROPOSED SAMPLING FOR UST 273 DISPENSER AREA
FORT MONMOUTH, NEW JERSEY

Location ID	Location	Field Meter Readings ^{a/}	Unfractionated EPH ^{b/}	VOCs + TICs and TBA by Method 8260C ^{c/}	SVOCs + TICs by Method 8270C ^{d/}
Soil					
273-SB-01	See Figure 1: 1 soil boring, 2 samples.	1 boring	0	2	0
273-SB-02	See Figure 1: 1 soil boring, 2 samples.	1 boring	0	2	0
273-SB-03	See Figure 1: 1 soil boring, 2 samples.	1 boring	2	0	2
QA/QC samples (see SAP for additional details) ^{e/}					
Field Duplicates (5% Sampling Frequency per media)		NA	1	1	1
Matrix Spike (5% Sampling Frequency per media)		NA	1	1	1
Matrix Spike Duplicate (5% Sampling Frequency per media)		NA	1	1	1
Trip Blank (1 per cooler of VOCs per media)		NA	0	1	0
QA Split (5% per media)		NA	1	1	1
Equipment Blank (5% Sampling Frequency per media)		NA	1	1	1
TOTAL		NA	7	10	7

Notes:

NA = not applicable.

^{a/} Field meter readings include, in soil samples: photoionization detector (PID) readings along entire soil column; and in groundwater: PID headspace, pH, temperature, electrical conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity.

^{b/} EPH = extractable petroleum hydrocarbons. If any EPH concentrations in soil exceed 1000 mg/kg in any of the site samples, then the samples will also be analyzed for 2-methylnaphthalene and naphthalene.

^{c/} VOCs = volatile organic compounds; TICs = tentatively identified compounds; TBA = tertiary butyl alcohol

^{c/} SVOCs = naphthalene and 2-methylnaphthalene only

^{e/} QA/QC = quality assurance/quality control; SAP = Sampling and Analysis Plan. The requirement for QA/QC samples may be fulfilled with samples from other parcels.



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
401 East State Street
P.O. Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028
Phone #: 609-633-1455
Fax #: 609-633-1439

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

October 13, 2015

John Occhipinti
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re: *No Further Action Request*
Site Investigation Report Addendum for the ECP Parcel 83 Underground Storage Tanks
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Occhipinti:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report, received August 4, 2015, prepared by Department of the Army Office of Assistant Chief of Staff for Installation Management to provide documentation of the location and status of all USTs identified within the parcel. The NJDEP comments regarding various constituents unrelated to the USTs previously noted in parcel soils are not addressed in this submittal.

Page 2 of 4 of the submittal indicates certain USTs specifically mentioned in previous NJDEP comments are not included in this submittal as there are no USTs associated with the particular buildings, specifically Buildings 66, 281 or 479. In reviewing this submittal, the UST referenced as near Building 281 appears to have been addressed via remedial activities at UST 108-7; see below for comment regarding same. USTs at (former) Buildings 66 and 479 (and 478) are shown in the 1956 Fuel Storage map, Appendix O, of the '07 ECP, as well as indicated as "high potential UHOTS" in Figure 2 of the *July 2014 UHOT Investigation Report*. Unless all tanks, former and/or current, have been evaluated in accordance with the applicable regulations and guidance documents, the NJDEP cannot comment as to the potential absence or presence of a petroleum discharge associated with those tanks.

As indicated in the submittal, numerous underground storage tanks (USTs) have previously received a designation of No Further Action (NFA) required. Based upon a review of the referenced submittal, it is also agreed NFA is necessary for the following USTs:

- UST 49-76 & UST-49-77; #01-05-24-1004-1; each 5000 g gasoline (Attachment E)
- UST 63B aka UST 63-2; 1000 g #2 fuel (Attachment F)
- UST 108A aka 108-7; 1000 g #2 fuel (Attachment I)
- UST 116B aka UST 116-9; #97-04-10-1409-35; 1000 g #2 fuel; NFAed 10/23/00; ECP Parcel 85; additional sampling performed in May 2010 indicates NFA remains appropriate (Attachment J)
- UST 117C aka UST 117-72; #84-04-28-1944-21; 1000 g #2 fuel; ECP Parcel 86 (Attachment K)
- USTs 161 – Parcel 87 (Attachment L)
 - UST 161-68; 550 g waste oil
 - UST 161-14; 1000 g #2 fuel; #93-03-12-2158-30
- UST 167-18; 1000 g #2 diesel (Attachment M)
- USTs 273 aka 009001-65,66 & 67 (Attachment N)
 - UST 273-65; 6000 g diesel
 - UST 273-66; 10,000 gasoline
 - UST 273-67; 10,000 g gasoline
 - Note – the NFA is applicable to the USTs only, not the dispenser/s, which were reported as used with the AST fuel storage system which replaced USTs 273 until subsequent AST closure in 2011
- UST 483-55; #97-03-19-1359-16; previously NFAed 10/23/00; additional sampling performed in May 2010 indicates NFA remains appropriate (Attachment P)

UST 80 aka 80-6 aka FTMM-56 - Parcel 84 (Attachment G)

UST 80-6 was a #2 fuel tank which was granted an NFA by the Department on August 29, 2000. Ground water contamination at FTMM-56 unrelated to #2 fuel was monitored on a quarterly basis for many years. Submittal of analytical results from the additional round of ground water sampling as per the DEP's July 3, 2014 comment letter are pending.

USTs 108-60 through 64 aka FTMM-57 – Parcel 90

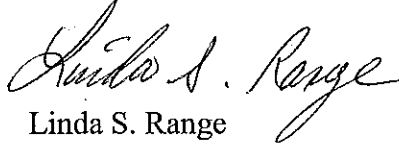
Attachment H references five USTs which were removed in April of 1993, and lists just over a page with descriptive bullets of documents reported to include remedial activities relative to these USTs, concluding that reported results support site characterization work is complete. The submittal, however, includes no results; comments regarding adequacy of characterization and recommendations as to additional action are therefore not possible at this time.

UST 482-54 – Parcel 93

As regarding UST 482-54 (#94-08-11-1345-43), which was NFAed in January of 2003, Attachment O appears to indicate TPH contaminated soils remain at levels of 14,100 ppm and 29,400 ppm. As indicated in the email of October 9, 2015, clarification is requested, as a designation of NFA is not appropriate for contamination at this level.

Please contact this office if you have any questions.

Sincerely,

A handwritten signature in cursive script, reading "Linda S. Range".

Linda S. Range

C: Joe Pearson, Calibre
Rick Harrison, FMERA
Joe Fallon, FMERA
James Moore, USACE
Frank Barricelli, RAB

Attachment B
Field Notes

Location FTMMDate 11-10-17Project / Client USACE

PAR-79-mw-01

1245 CREW TRANSFERS DRUM OF CUTTINGS
FROM PAR 79 - mw-01 LOCATION TO
PICK AT STAGING AREA

1300 CREW RETURNS TO COMPLETE PAR 80

1350 HEAD TO PAR 105 LOCATIONS PAR

SOIL BORING SAMPLING. GUST FB AT 1405

1400 PUSH AT 105 - SB-01 0-5

1420 PUSH AT 105 - SB-02 0-5

1430 PUSH AT 105 - SB-03 0-5

1425 COLLECT SAMPLES AND COMPLETE
BORING LOGS FOR ABOVE THREE BORINGS.

1450 CREW LOADS EQUIPMENT AND DEPARTS
FOR THE DAM.

1510 HEAD TO THE OFFICE TO PREPARE
COC'S AND FIELD NOTE SCANS.

1630 TERMINATE PINE RENTAL FOR
ONE PID AND ONE WATER LEVEL METER.
THE PINE CONFIRMATION # IS KCG15726.

THEY ARE SCHEDULED TO PICK UP THE
EQUIPMENT 11/13/17.

1700 SIGN COC FORMS, REFRIGERATE SAMPLES.

1750 DEPART

11-10-17

Location FTMMDate 11-13-17Project / Client USACE

PAR-83-273-SB-01

0900 BEGIN PUSHING THROUGH CONCERN
AT PAR-83-273-SB-01.

0905 - COLLECT 24000 LB OF THE LEAS AND
RECORD OBSERVATIONS TO THE SOIL BORING LOG

0935 BEGIN PUSHING AT PAR-83-273-SB-02

0955 BEGIN PUSHING AT PAR-83-273-SB-03

1100 RELOCATE TO PAR-83-482

1120 BEGIN PUSHING AT PAR-83-482-SB-01

1130 INSTAL TEMPORARY WELLS PAR-83-482-
TMMW-01. OBSERV GRAB PERFORMED FOR
ADDITIONAL VOLUME BUT SIMILAR
REMARKS WAS

1145 BEGIN PUSHING AT PAR-83-482-SB-03

1155 INSTAL PAR-83-482-TMMW-03

1215 BEGIN PUSHING AT PAR-83-482-SB-02
GRAB AN ADDITIONAL SAMPLE FROM 10-15'

1300 BEGIN PUSHING AT PAR-83-482-SB-04

1330 BEGIN PUSHING AT ~~PAR-83~~ FTMM-57-
SB-02

1350 BEGIN PUSHING AT FTMM-57-
SB-01.

1400 COLLECTS ADDITIONAL VOLUME FROM
FTMM-57-SB-02 FOR QA/QC SAMPLES
REMOVE TEMPORARY WELLS FROM PAR-83-482

11-13-17

Attachment C
Soil Boring Logs

Soil Boring Log

CLIENT: USACE					INSPECTOR: T. HORN		BORING/WELL ID: PAR-83-273-SB-01	
PROJECT NAME: FTMM - ECP					DRILLER: ECP 1 - Wells Reave		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel					WEATHER: LOW RAIN, 50°F		CONCRETE	
PROJECT NUMBER: 748810-					CONTRACTOR: East Coast Drilling, Inc. (ECDI)		LOCATION PLAN	
GROUNDWATER OBSERVATIONS					RIG TYPE: Geoprobe(R) 7822DT 6610DT		Oceanport, New Jersey	
WATER LEVEL: -					DATE/TIME START: 11-13-17 / 0900			
DATE: -					DATE/TIME FINISH: 11-13-17 / 0915			
TIME: -					WEIGHT OF HAMMER: N/A			
MEAS. FROM: -					DROP OF HAMMER: N/A			
					TYPE OF HAMMER: N/A			
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS	
0			30/60	0.0	DRY CONCRETE RUBBLE AND C. GRAVEL			
				0.0	MOIST LIGHT-REDDISH BROWN MOD DENSE SILTY, SAND			
1				0.0	MOIST PERRISH BROWN STIFF SANDY SILT LITTLE CLAY			
				0.0				
2	PAR-83-273-SB-01-2-2.5			0.0	MOIST, DR. OLIVE-BROWN - BROWN V. STIFF SILT, SOME VF SAND, LITTLE CLAY		Sample Time 0920	
				0.0				
3					NO RECOVERY			
4								
5	PAR-83-273-SB-01-5-5.5	45/60		0.0	MOIST REDDISH-ORANGE-BROWN F-C MOD DENSE SAND TR. VF GRAVEL		Sample Time 0935	
				0.0				
6				0.0	WET REDDISH-ORANGE-BROWN MOD DENSE V.F.-F SAND, SOME V.F.-F GRAVEL			
				0.0				
7				0.0				
				0.0	WET REDDISH-ORANGE-BROWN MOD DENSE V.F.-C SAND, TR. VF GRAVEL			
8				0.0				
				0.0				
9					NO RECOVERY			
10					end of boring			
Remarks:								
Sample Types				Consistency vs. Blowcount / Foot				
S - Split-Spoon				Granular (Sand & Gravel)				
U - Undisturbed Tube				Fine Grained (Silt & Clay)				
C - Rock Core				V. Loose: 0-4 Dense: 30-50 V. Soft: <2 Stiff: 8-15				
A - Auger Cuttings				Loose: 4-10 V. Dense: >50 Soft: 2-4 V. Stiff: 15-30				
				M. Dense: 10-30 M. Stiff: 4-8 Hard: >30				
				and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation				

Soil Boring Log

CLIENT: USACE					INSPECTOR: T. Noen		BORING/WELL ID: PAR 273-SB-02	
PROJECT NAME: FTMM - ECP					DRILLER: ECDI WELLS REVE		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel					WEATHER: LIGHT RAIN, 50 °F		CONCRETE	
PROJECT NUMBER: 748810-					CONTRACTOR: East Coast Drilling, Inc. (ECDI)		LOCATION PLAN	
GROUNDWATER OBSERVATIONS					RIG TYPE: Geoprobe(R) 7822DT 6610 DT		Oceanport, New Jersey	
WATER LEVEL: _____					DATE/TIME START: 11-13-17 0935			
DATE: _____					DATE/TIME FINISH: 11-13-17 0950			
TIME: _____					WEIGHT OF HAMMER: N/A			
MEAS. FROM: _____					DROP OF HAMMER: N/A			
TYPE OF HAMMER: N/A								
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS	
0			36/60	0.0	MOIST, OLIVE GRAY BROWN MOD SOFT SANDY SILT			
				0.0				
1				0.0	MOIST OLIVE GRAY-BROWN MOD STIFF SANDY SILT.			
				0.0				
2	PAR-273-SB-02-2.5			0.0			1005	
				0.0	DEP DK REDDISH-BROWN VF-F SAND, LITTLE SILT			
3					NO RECOVERY			
4								
5			40/60	0.0	OLIVE GRAY TO REDDISH-BROWN MOD DENSE SILTY SAND, MOIST			
	PAR-273-SB-02-5.5-6			0.0	DK REDDISH-ORANGE BRN MOD DENSE SILTY SAND, MOD MOIST		1015	
6				0.0	WET DK REDDISH-ORANGE BRN MOD DENSE SILTY SAND			
				0.0				
7				0.0	WET V DENSE VF OLIVE BROWN SAND			
				0.0				
8					NO RECOVERY			
9								
10					end of boring			
Remarks:								
Sample Types					Consistency vs. Blowcount / Foot			
S - Split-Spoon					Granular (Sand & Gravel)			
U - Undisturbed Tube					Fine Grained (Silt & Clay)			
C - Rock Core					V. Loose: 0-4 Dense: 30-50 V. Soft: <2 Stiff: 8-15			
A - Auger Cuttings					Loose: 4-10 V. Dense: >50 Soft: 2-4 V. Stiff: 15-30			
					M. Dense: 10-30 M. Stiff: 4-8 Hard: >30			
					and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation			

Soil Boring Log

CLIENT: USACE					INSPECTOR: Tom Horn		BORING/WELL ID: PAR-83-273-SB-03	
PROJECT NAME: FTMM - ECP					DRILLER: ECDI WELLS REVE		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel					WEATHER: LIGHT RAIN, 50°F		CONCRETE	
PROJECT NUMBER: 748810-					CONTRACTOR: East Coast Drilling, Inc. (ECDI)		LOCATION PLAN	
GROUNDWATER OBSERVATIONS					RIG TYPE: Geoprobe(R) 7822DT- 6610 DT		Oceanport, New Jersey	
WATER LEVEL:					DATE/TIME START: 11-13-17 / 0955			
DATE:					DATE/TIME FINISH: 11-13-17 / 1005			
TIME:					WEIGHT OF HAMMER: N/A			
MEAS. FROM:					DROP OF HAMMER: N/A			
					TYPE OF HAMMER: N/A			
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS	
0			48/60	0.0	DRY CONCRETE RUBBLE, C GRAVEL			
				0.0	DRY GRAY-BROWN MOD DENSE SILTY SAND AND F. GRAVEL			
1				0.0	MOIST OLIVE-GRAY BROWN MOD STIFF SILTY CLAY		1030	
				0.0				
2	PAR-83-273-SB-03-2-2.5			0.0				
				0.0	MOIST DK REDDISH-ORANGE MOD DENSE SAND, SOME C. GRAVEL			
3				0.0				
				0.0				
4					NO RECOVERY			
5	PAR-83-273-SB-03-5-5.5		48/60	0.0	MOIST, REDDISH-ORANGE MOD DENSE SAND, LITTLE SILT, LITTLE F. GRAVEL		1040	
				0.0	WET REDDISH-ORANGE MOD. DENSE SAND, LITTLE SILT, LITTLE F. GRAVEL			
6				0.0				
				0.0	WET, OLIVE BROWN MOD. DENSE, SOME SILT, TR. F. GRAVEL			
7				0.0				
				0.0				
8				0.0				
				0.0				
9					NO RECOVERY			
10								
Remarks:								
Sample Types					Consistency vs. Blowcount / Foot			
S - Split-Spoon					Granular (Sand & Gravel)		Fine Grained (Silt & Clay)	
U - Undisturbed Tube					V. Loose: 0-4 Dense: 30-50		V. Soft: <2 Stiff: 8-15	
C - Rock Core					Loose: 4-10 V. Dense: >50		Soft: 2-4 V. Stiff: 15-30	
A - Auger Cuttings					M. Dense: 10-30		M. Stiff: 4-8 Hard: >30	
							and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation	