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:

- "Letter Work Plan for FTMM-66, Building 886 Former Aboveground Storage Tank, Fort Monmouth, New Jersey" (15 August 2017)

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: William R Colvin Date: 15 August 2017

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

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

15 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 FTMM-66
Building 886 Former Aboveground Storage Tank
Fort Monmouth, New Jersey
PI G000000032

Dear Mr. Joshi:

The purpose of this work plan is to obtain confirmation samples at select locations at FTMM-66 to address the New Jersey Department of Environmental Protection (NJDEP) comments that previous soil sample results exceeded the residual product/free product limit of 8,000 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH). The sampling is intended to obtain current information so that the environmental conditions at FTMM-66 can be accurately described in property transfer documents. The results of this sampling will be presented in a letter report to supplement the site characterization previously provided in *Summary Remedial Investigation Report and NFA Request for FTMM-66 Building 886 Former Aboveground Storage Tank, Fort Monmouth, NJ*. (6 April 2017).

FTMM-66 was initially associated with Building 886. A 1,000-gallon fuel oil underground storage tank (UST) removed in 1998 and a 250,000-gallon fuel oil above-ground storage tank (AST) removed in the 1970's were contributing sources of soil and groundwater contamination. In 2002 and 2003, approximately 4,000 tons of petroleum-contaminated soil was excavated and removed. The presence of high-voltage electric lines limited the westward extent of the soil excavation; thus, a Light Non-Aqueous Phase Liquid (LNAPL) recovery system was installed in 2003 near these subsurface electric lines. The Army's 6 April 2017 NFA request for FTMM-66 was based on multiple lines of evidence including compliance averaging. In NJDEP's 17 April 2017 email (attached) it was stated that the submittal could not be evaluated because petroleum hydrocarbons were present above the residual or free product limit of 8,000 mg/kg. Since the soil data in the Army's 6 April 2017 submittal was generated in 2003 and earlier, additional soil sampling is proposed to determine the current extractible petroleum hydrocarbons (EPH) concentrations in representative areas that previously exceeded the 8,000 mg/kg limit.

Eight Geoprobe borings will be installed for supplemental characterization as shown on the attached figure. Boring 886-SB-01 through 886-SB-08 will be installed at the previous locations of Boring 886-PX14A, 886-PX15A, 886-PX19, 886-PX24, 886-PX26, 886-PX30, 886-41, and 886-57. Each boring

will be advanced to approximately 12 feet below ground surface (ft bgs), which is approximately 4 ft below the water table. Two soil samples will be collected from each boring:

- One sample from the same depth interval as the previous sample with elevated TPH concentrations (for example, from 7.5 to 8.0 ft bgs for boring 886-SB-06, to match the previous 7.5 to 8.0 ft bgs sample depth for 886-PX24); and
- One sample from the most contaminated interval encountered based on field evidence (visual, olfactory, and photoionization detector [PID] screening). If there is no field evidence of petroleum contamination, then this sample will be collected from just above the water table.

Soil samples will be analyzed in accordance with the requirements for No. 2 fuel oil in Table 2-1 of the New Jersey Administrative Code (NJAC) 7:26E *Technical Requirements for Site Remediation*. Each soil sample will be analyzed for EPH, and a minimum of 25 percent of the soil samples where EPH is detected above 1,000 mg/kg will be analyzed for the semivolatile organic compounds (SVOCs) naphthalene and 2-methylnaphthalene. One soil sample will be selected from each boring to satisfy this requirement for analysis of naphthalene and 2-methylnaphthalene, and will be collected from either the sample with the greatest field indication of petroleum contamination, or from just above the water table if there is no field evidence of contamination. A summary of the soil and groundwater sampling and analysis is presented in the attached table.

We look forward to your review of this proposed work plan and approval or additional comments. The technical Point of Contact (POC) is Kent Friesen at (732) 383-7201 or by email at kent.friesen@parsons.com. If you have any questions or require additional information, I can be reached at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,

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

Attachments
Figure 1 - FTMM-66 Proposed Sample Locations
Table 1 - Sampling Summary for the FTMM-66 Area Work Plan
Email Correspondence Concerning FTMM-66

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)

BUILDING 1007

BUILDING 886

Lane Avenue

Stephenson Avenue (formerly Murphy Dr.)

886-51
Depth	Conc
7.5	5,430

886-PX48
Depth	Conc
7	7,186

886-5
Depth	Conc
0.5	265
2	312
4	ND
6	6,887
8	4,352
10	2,828
12	188

886-41
Depth	Conc
0.5	ND
2	309
4	ND
6	732
6 (dup)	ND
8	2,080
8 (dup)	2,483
10	14,258
10 (dup)	4,247
10 (RS)	ND
12	ND
12 (dup)	ND

886-40
Depth	Conc
0.5	ND
2	ND
4	6,416
6	5,317
8	677
10	ND
12	ND

886-58
Depth	Conc
6	ND
8	3,776
10	5,413
12	ND

886-57
Depth	Conc
4	ND
6	22,317
8	14,885
10	ND
12.5	ND

886-54
Depth	Conc
8.5	3,967
8.5 (dup)	3,914
10.5	6,024

886-49X
Depth	Conc
7	19,065

886-PX20
Depth	Conc
8	16,602
8 (dup)	17,048

886-PX19
Depth	Conc
8	24,876

886-PX23
Depth	Conc
8	10,284

886-PX21
Depth	Conc
7.5	5,102

886-PX24
Depth	Conc
8	31,639

886-PX26
Depth	Conc
8	11,162

886-PX29
Depth	Conc
10	13,469

886-PX30
Depth	Conc
9.5	12,009

886-PX25
Depth	Conc
8	6,349

886-PX36
Depth	Conc
8	6,435

886-4
Depth	Conc
0.5	207
2	205
4	638
6	5,799
8	2,084
10	3,217
12	ND

886-6
Depth	Conc
0.5	487
2	2,389
4	323
6	2,717
6 (dup)	2,291
8	7,466
10	4,650
12	ND

886-15
Depth	Conc
0.5	ND
2	ND
4	ND
6	7,480
8	2,445
10	5,631
12	1,838

886-16
Depth	Conc
0.5	ND
2	ND
4	9,572
6	6,180
6 (dup)	5,146
8	1,681
10	1,635
12	ND

886-14
Depth	Conc
0.5	168
2	3,384
4	9,503
6	ND
8	4,044
10	1,121
12	2,345

886-PX14A
Depth	Conc
6	11,883

886-PX17
Depth	Conc
7.5	6,128

886-PX52
Depth	Conc
8.5	5,930
8.5 (dup)	6,842

886-PX18
Depth	Conc
8	7,320
8 (dup)	6,475

886-PX15A
Depth	Conc
5.5	17,095

886-SB-01
886-SB-02
886-SB-03
886-SB-04
886-SB-05
886-SB-06
886-SB-07
886-SB-08

Functional Areas 1A and 1B

Functional Areas 2A and 2B

NOTES:
(1) Concentrations are in milligrams per kilogram (mg/kg) and depths are in feet below ground surface.
(2) All TPH concentrations shown were left in place following Phase 2 Excavation in 2002-2003.

LEGEND:

- Phase 1 Post-Excavation Soil Sample (January - March 2002)
- Phase 1 RI Soil Boring (March - June 2002)
- Phase 2 RI Soil Boring (November 2002)
- Phase 2 Post-Excavation Soil Sample (November 2002 - February 2003)
- Shallow Monitoring Well
- Recovery Well
- Sample Location with TPH > 5,100 mg/Kg
- Former Aboveground Storage Tank
- Former Underground Storage Tank
- Extent of Soil TPH > 5,100 mg/kg remaining after Phase 2 Excavation
- FTMM-66 Phase 1 Excavation
- FTMM-66 Phase 2 Excavation
- W — Water Line
- SS — Sanitary Sewer Line
- SW — Storm Sewer Line
- G — Gas Line
- Estimated Groundwater Flow Direction
- Subsurface Electric Utility Lines
- Functional Area
- Proposed Sample Location

N

1 inch = 30 feet

0 12.5 25 50 75 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth New Jersey

FTMM-66 Proposed Sample Locations

CREATED BY:	REVIEWED BY:
RR	JH
DATE:	FIGURE NUMBER:
MAR. 2017	FIGURE 1
PROJECT NUMBER:	FILE:
748810-02170	Figure2_FTMM-66_TPH_Concentrations.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS_TXAUS\MXD\FTMM-66\Figure2_FTMM-66_TPH_Concentrations.mxd

TABLE 1
SAMPLING SUMMARY FOR FTMM-66 LETTER WORK PLAN
FORT MONMOUTH, NEW JERSEY

Site	Location	Field Meter Readings [a/]	Unfractionated EPH [b/]	SVOCs + TICs by Method 8270C [c/]	Rationale
Soil					
886-SB-01	See Figure 1: 1 soil boring at former location of 886-41	1 boring	2	1	Purpose: characterize soils from previous (March 2002) 886-41 boring with TPH> 5,100 mg/kg.
886-SB-02	See Figure 1: 1 soil boring at former location of 886-PX14A	1 boring	2	1	Purpose: characterize soils from previous (November 2002-February 2003) 886-PX14A boring with TPH> 5,100 mg/kg.
886-SB-03	See Figure 1: 1 soil boring at former locaiton of 886-PX15A	1 boring	2	1	Purpose: characterize soils from previous (November 2002-February 2003) 886-PX15A boring with TPH> 5,100 mg/kg.
886-SB-04	See Figure 1: 1 soil boring at former location 886-PX26	1 boring	2	1	Purpose: characterize soils from previous ((November 2002-February 2003) 886-PX26 boring with TPH> 5,100 mg/kg.
886-SB-05	See Figure 1: 1 soil boring at former location 886-PX30	1 boring	2	1	Purpose: characterize soils from previous (November 2002-February 2003) 886-PX30 boring with TPH> 5,100 mg/kg.
886-SB-06	See Figure 1: 1 soil boring at former location 886-PX24	1 boring	2	1	Purpose: characterize soils from previous (November 2002-February 2003) 886-PX24 boring with TPH> 5,100 mg/kg.
886-SB-07	See Figure 1: 1 soil boring at former location 886-PX19	1 boring	2	1	Purpose: characterize soils from previous (November 2002 - February 2003) 886-PX19 boring with TPH> 5,100 mg/kg.
886-SB-08	See Figure 1: 1 soil boring at former location 886-57	1 boring	2	1	Purpose: characterize soils from previous (November 2002) 886-57 boring with TPH> 5,100 mg/kg.
QA/QC samples (see SAP for additional details) [e/]					
Field Duplicates (5% Sampling Frequency per media)		NA	1	1	
Matrix Spike (5% Sampling Frequency per media)		NA	1	1	
Matrix Spike Duplicate (5% Sampling Frequency per media)		NA	1	1	
Trip Blank (1 per cooler of VOCs per media)		NA	0	0	
QA Split (5% per media)		NA	1	1	
Equipment Blank (5% Sampling Frequency per media)		NA	1	1	
TOTAL		**NA**	**21**	**13**	

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 minimum 25% of the samples where EPH exceeds 1000 mg/kg will also be analyzed for 2-methyl;napthalene and napthalene

[c/] SVOCs = napthalene and 2-methylnapthalene only

Friesen, Kent

From: Range, Linda <Linda.Range@dep.nj.gov>
Sent: Tuesday, April 25, 2017 1:07 PM
To: Friesen, Kent
Cc: Moore, James T CIV USARMY CENAN (US); Grill, Cris
Subject: RE: M-66 - Summary Remedial Investigation Report & Request for No Further Action for Site FTMM-66

Hi Kent,

I agree, with original numbers as high those reported, it's possible soils at FTMM-66 may still exceed the 8,000 mg/kg residual product/free product "cap"/limit. We cannot consider soils with levels above 8,000 mg/kg for compliance averaging; according to the protocol/policy, etc,soils above 8,000 mg/kg are to be remediated (actively remediated). They are considered representative of at least residual product and therefore potential source material.

We can certainly discuss, but up to you whether you wish to go ahead to determine current conditions in hope that results below 8,000 ppm will allow for compliance averaging, or consider additional alternative action - excavation, etc.

From: Friesen, Kent [mailto:Kent.Friesen@parsons.com]
Sent: Monday, April 24, 2017 4:03 PM
To: Range, Linda <Linda.Range@dep.nj.gov>
Cc: Moore, James T CIV USARMY CENAN (US) <James.T.Moore@usace.army.mil>; Grill, Cris <Cris.Grill@parsons.com>
Subject: RE: M-66 - Summary Remedial Investigation Report & Request for No Further Action for Site FTMM-66

Hi Linda – Jim and I discussed this morning; based on your response we are looking at performing additional soil sampling at this site to support the claim of TPH/EPH degradation. But if we still exceed the 8,000 mg/kg EPH residual/free product limit, could the State consider further review of the compliance averaging approach, since the Army installed and operated a free produce recovery system?

It seems quite possible that this FTMM-66 site may exceed the 8,000 mg/kg free product limit, even though recoverable or mobile free product is no longer present. – Kent Friesen

Kent A. Friesen, P.E., P.G.
PARSONS
Fort Monmouth BRAC 05 Facility
P.O. Box 148
Oceanport, NJ 07757
Office: (732) 383-7201
Mobile: (307) 214-0324
Fax: (732) 383-8960
kent.friesen@parsons.com

SAFETY - MAKE IT PERSONAL

From: Range, Linda [mailto:Linda.Range@dep.nj.gov]
Sent: Monday, April 17, 2017 1:42 PM
To: william.r.colvin18.civ@mail.mil
Cc: Moore, James T NAN02 (James.T.Moore@usace.army.mil) <James.T.Moore@usace.army.mil>; Pearson, Joseph <Joseph.Pearson@calibresys.com>; Friesen, Kent <Kent.Friesen@parsons.com>
Subject: M-66 - Summary Remedial Investigation Report & Request for No Further Action for Site FTMM-66

Bill,

As you may recall, submittals incorporating use of the 95% UCL method for compliance averaging are referred to another group for review. In performing my preliminary review prior to referral, however, an issue was noted. As referenced in the submittal (2nd paragraph of Section 5.0, and as per my previous email of June 23, 2016)), DEP policy states TPH/EPH cannot exceed the residual product/free product limit of 8,000 mg EPH/kg for No. 2 fuel. Although it is agreed natural degradation has likely taken place in the intervening years since the 2003 post excavation data was generated, more recent sampling has not been performed to substantiate the extent to which natural degradation may have taken place, and the levels from '03 were significantly elevated (e.g. 24,876 ppm; 31,639 ppm).

After discussion with management, as no evidence has been provided to demonstrate EPH is now below 8,000 mg/kg, it was determined FTMM-66 is not eligible for compliance averaging and the submittal will not be referred for further review.

Please contact me to discuss further.

Linda S. Range
Site Remediation Program
Bureau of Case Management
609-984-6606