

28 January 2016

Mr. Nile Testerman  
Environmental Engineer  
NCDEQ  
217 West Jones St  
Raleigh, NC 27603

**Subject: Monthly O&M Report – October 2015  
Cape Fear Superfund Site  
1219 S. Reilly Road  
Fayetteville, NC 28314**

Dear Mr. Testerman:

Enclosed you will find the October 2015 Monthly Report, prepared by Geosyntec Consultants (Geosyntec) on behalf of Environmental Field Management (EFM), summarizing the Operations and Maintenance (O&M) activities and system performance data for the ground water treatment system at the Cape Fear Wood Preserving Superfund Site.

Geosyntec and EFM appreciate the opportunity to continue the O&M activities at the Cape Fear Site. Should you have any questions or concerns, please contact me at 919-870-0576.

Sincerely,



Beau Hodge, P.G.  
Project Manager

Attachment: Operation and Maintenance Monthly Report – October 2015

Copies to: Hilary Thornton, EPA Region 4 (electronic copy)  
Darci Scherbak, B&V (electronic copy)  
Jeff Leaver, EFM (electronic copy)

*Prepared for*

**North Carolina Dept. of Environmental Quality**  
217 West Jones Street  
Raleigh, North Carolina 27603

**OPERATION AND MAINTENANCE  
MONTHLY REPORT – OCTOBER 2015  
CAPE FEAR WOOD PRESERVING  
SUPERFUND SITE  
FAYETTEVILLE, CUMBERLAND COUNTY  
NORTH CAROLINA**

*Prepared by*

**Geosyntec**   
consultants

**engineers | scientists | innovators**

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Project Number GN5550

January 2016

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## 1. INTRODUCTION

The United States Environmental Protection Agency (EPA), under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), initiated procedures to conduct Long Term Response Action (LTRA) activities at the Cape Fear Wood Preserving Superfund Site located in Fayetteville, Cumberland County, North Carolina (NC). On July 24, 2012, the system was shut down while the responsibility for operation and maintenance (O&M) of the remediation system transferred from EPA to the North Carolina Department of Environmental Quality (NCDEQ), Superfund Branch. On January 17, 2014, NCDEQ initiated a new five-year contract with Environmental Field Management (EFM) for O&M of the remediation system. EFM contracted Geosyntec Consultants of NC, PC (Geosyntec) to serve as the engineer of record for activities related to O&M of the system. This monthly report has been prepared by Geosyntec, on behalf of EFM, under Contract Number N130071 with NCDEQ.

The system was restored to full operation on May 1, 2014. The month of March 2014 was needed to make repairs and restore operation of the system controls and the programmable logic controller (PLC) at the site. This report presents the results of operation of the remediation system for the month of October 2015.

The LTRA remedy's primary objective is to remediate the dissolved ground water contamination and remove the dense non-aqueous phase liquid (DNAPL) present in the subsurface at the site. The primary chemicals of concern (COC) include benzene, non-carcinogenic (NCAR) polynuclear aromatic hydrocarbons (PAHs) and carcinogenic (CAR) PAHs. Carbazole is an additional chemical being monitored.

The ground water remediation system consists of three primary treatment technologies: (1) DNAPL removal, (2) ground water extraction with carbon filtration treatment, and (3) discharge and infiltration system. **Figure 1** is a general site layout showing the locations of the recovery wells (RWs), French Drain (FD), multi-phase extraction (MPE) wells, monitoring wells (MWs), and infiltration galleries (IGs) for the ground water extraction and treatment system.

## 2. OPERATION AND MAINTENANCE SUMMARY

Personnel conducted three site visits during the period from October 1 through October 31, 2015. The previous month of September 2015 focused on maintaining normal operations and replacing the granular activated carbon (GAC) in one of the two vessels. October 2015 efforts were strictly routine site operations.

### 2.1 Site Visit Chronology

A summary of activities conducted during monthly site visits is provided below. Detailed site visit information can be found in the site visit logs attached as **Appendix A**. Maintenance records for the equipment serviced during this time period are presented in **Appendix B**.

- **October 12, 2015:** Conducted a routine site visit. Pumped off 7 gallons of NAPL from the oil/water separator.
- **October 15, 2015:** Conducted a routine site visit.
- **October 22, 2015:** Conducted a routine site visit. Pumped off 6 gallons of NAPL from the oil/water separator. Conducted monthly site monitoring.

### 2.2 Run Time

Total runtime for the month of September was estimated at 95%. Interruptions were due to power issues related to storms. **Table 1** presents the number of site visits per month compared to the system's run time percentage.

### 3. SYSTEM PERFORMANCE

During the reporting period, approximately 13 gallons of DNAPL were recovered from the oil water separator (OWS). A total of 131,638 gallons of ground water were treated through the plant according to the influent flow meter since September 29, 2015.

#### 3.1 DNAPL Recovery

DNAPL recovery during the reporting period is summarized in the following table.

Date	DNAPL Recovered (gallons)
10/12/2015	7
10/15/2015	0
10/22/2015	6
<b>Total</b>	<b>13</b>

**Table 2** presents the monthly and cumulative DNAPL recovery. **Table 3** presents the change in thickness of DNAPL at the recovery wells.

#### 3.2 Flow Data (Influent and Effluent)

Since September 29, 2015, according to the influent flow meter, a total of 131,638 gallons of water was processed through the system representing an average flow rate of 4.0 gallons per minute (gpm). **Table 4** presents the influent flow meter measurements on a monthly basis. The average monthly flow through the system for the previous 12 months has been approximately 195,000 gallons; representing an average flowrate of 4.4 gpm. Heavy rainfall during the beginning of the month likely contributed to a high water table limiting infiltration at the galleries and system treatment.

**Table 5** presents the distribution of the discharge based on individual flowmeters at each infiltration gallery. Discrepancies between the flow meters have been a constant issue. The influent flow meter is considered more accurate on a monthly basis than the meters at the individual infiltration galleries.

**Table 6** presents the configuration and status of each extraction point.

### **3.3 Treatment System Monitoring**

Treatment system samples are collected every other month. The next scheduled sampling event will be in November 2015.

**4. SYSTEM MAINTENANCE, REPAIRS, AND MODIFICATIONS**

The following repairs, modifications, and/or maintenance items were made to the remediation system components during October 2015:

<b>System Component</b>	<b>Maintenance, Repair, or Modification</b>
General Site	None.
Recovery Wells	None.
System Processes	None.
Treatment System	None.
Infiltration Galleries	None.

## 5. RECOMMENDATIONS

The following routine tasks will be conducted in November:

- Conduct site visits as needed.
- Perform daily remote monitoring of the system.
- Change out bag filters as needed and pump off DNAPL.
- Collect system samples for performance monitoring.
- Complete minor repairs to maintain run-time.

The annual cleaning of the influent and effluent tanks and the oil water separator and other process piping will occur in November.

# TABLES

**Table 1. Site Maintenance Data  
Cape Fear Wood Preserving Superfund Site**

<b>Year</b>	<b>Month</b>	<b>Number of Site Visits</b>	<b>Runtime (%)</b>	<b>Gallons of DNAPL Extracted</b>
2010	Nov	3	97%	25
2010	Dec	5	97%	1,886
2011	Jan	5	99%	34
2011	Feb	6	89%	60
2011	Mar	7	97%	150
2011	Apr	5	70%	62
2011	May	4	88%	65
2011	Jun	4	100%	35
2011	Jul	4	100%	80
2011	Aug	5	84%	75
2011	Sept	4	100%	50
2011	Oct	7	97%	53
2011	Nov	9	83%	48
2011	Dec	8	94%	500
2012	Jan	7	100%	120
2012	Feb	6	97%	70
2012	Mar	8	100%	65
2012	Apr	6	100%	70
2012	May	4	98%	52
2012	Jun	4	86%	42
2014	Apr	5	80%	23
2014	May	5	90%	21
2014	Jun	2	100%	21
2014	Jul	4	100%	23
2014	Aug	5	100%	4
2014	Sept	4	100%	25
2014	Oct	6	100%	17
2014	Nov	5	87%	21
2014	Dec	6	88%	20
2015	Jan	4	100%	265
2015	Feb	5	78%	11
2015	Mar	5	90%	22
2015	Apr	5	90%	19
2015	May	4	95%	27
2015	Jun	5	95%	30
2015	Jul	8	86%	28
2015	Aug	6	93%	18
2015	Sep	5	90%	24
2015	Oct	3	95%	13

**Notes:**

1. System operation began in 2001.

**Table 2. Cumulative DNAPL Recovery  
Cape Fear Wood Preserving Superfund Site**

<b>Date</b>	<b>DNAPL Extracted (gal)</b>	<b>Cumulative DNAPL Extracted (gal)</b>	<b>DNAPL Extracted (lbs)</b>	<b>Cumulative DNAPL Extracted (lbs)</b>
Nov 2010	25	16,257	228	148,119
Dec 2010	1,886	18,143	17,183	165,302
Jan 2011	34	18,177	310	165,612
Feb 2011	60	18,237	547	166,159
Mar 2011	150	18,387	1,367	167,526
Apr 2011	62	18,449	565	168,090
May 2011	65	18,514	592	168,683
June 2011	35	18,549	319	169,002
July 2011	80	18,629	729	169,730
Aug 2011	75	18,704	683	170,414
Sept 2011	50	18,754	456	170,869
Oct 2011	53	18,807	483	171,352
Nov 2011	48	18,855	437	171,790
Dec 2011	500	19,355	4,556	176,345
Jan 2012	120	19,475	1,093	177,438
Feb 2012	70	19,545	638	178,076
Mar 2012	65	19,610	592	178,668
Apr 2012	70	19,680	638	179,306
May 2012	52	19,732	474	179,780
June 2012	42	19,774	383	180,163
Apr 2014	23	19,797	210	180,372
May 2014	20	19,817	182	180,554
June 2014	21	19,838	191	180,746
July 2014	23	19,861	210	180,955
Aug 2014	4	19,865	36	180,992
Sep 2014	25	19,890	228	181,220
Oct 2014	17	19,907	155	181,374
Nov 2014	21	19,928	191	181,566
Dec 2014	20	19,948	182	181,748
Jan 2015	265	20,213	2,414	184,162
Feb 2015	11	20,224	100	184,263
Mar 2015	22	20,246	200	184,463
April 2015	19	20,265	173	184,636
May 2015	27	20,292	246	184,882
June 2015	30	20,322	273	185,156
July 2015	28	20,350	255	185,411
Aug 2015	18	20,368	164	185,575
Sept 2015	24	20,392	219	185,793
Oct 2015	13	20,405	118	185,912

**Notes:**

1. DNAPL indicates dense non-aqueous phase liquid
2. DNAPL specific gravity = 1.0918
3. DNAPL mass extracted (lbs) = DNAPL vol extracted (gal) \* DNAPL specific gravity \* 8.345 lbs/gal
4. System operation began in 2001.

**Table 3. Extraction Point Thickness Change  
Cape Fear Wood Preserving Superfund Site**

<b>RW-1R</b>			
<b>Visit Date</b>	<b>Depth to Product (ft bgs)</b>	<b>Product Thickness (ft)</b>	<b>Change in Product Thickness (ft)</b>
5/11/2015	NA	0.0	0
6/22/2015	25.04	Trace	Trace
7/27/2015	NA	0.00	Trace
8/18/2015	NA	0.23	0.23
9/29/2015	24.72	0	0
10/22/2015	24.65	Trace	Trace
<b>RW-7R</b>			
5/11/2015	20.96	1.98	1.27
6/22/2015	21.02	1.98	0.00
7/27/2015	21.60	1.40	1.40
8/18/2015	21.77	1.43	0.03
9/29/2015	21.07	1.85	0.42
10/22/2015	21.84	1.36	-0.49
<b>RW-8</b>			
5/11/2015	29.84	Trace	-0.42
6/22/2015	29.37	0.48	0.47
7/27/2015	29.64	0.20	-0.27
8/18/2015	28.09	0.51	0.31
9/29/2015	29.48	0.34	-0.17
10/22/2015	28.59	Trace	-0.33

**Notes:**

1. ft bgs indicates feet below ground surface.
2. Values in Change in Product thickness column calculated as: product thickness during current month - product thickness during previous month. Negative values indicate reduced product thickness. Positive values indicate product thickness has increased since previous month.
3. RW-5 does not have any Product Thickness.
4. RW-2, 3, 4 and 6 have been abandoned.

**Table 4. Influent Flow Meter Measurements  
Cape Fear Wood Preserving Superfund Site**

<b>Visit Date</b>	<b>Corrected Total Reading (gal)</b>	<b>Groundwater Extracted During Period (gal)</b>	<b>Average Flowrate (gpm)</b>
11/29/2010	34,473,797	135,455	3.03
12/28/2010	34,543,418	69,621	1.67
1/25/2011	34,741,720	198,302	4.92
2/24/2011	34,877,717	135,997	3.15
3/21/2011	35,038,696	160,979	4.47
4/15/2011	35,186,934	148,238	4.12
5/26/2011	35,318,347	131,413	2.23
6/30/2011	35,455,362	137,015	2.72
8/31/2011	35,637,222	181,860	2.04
9/30/2011	35,704,281	67,059	1.55
10/31/2011	35,889,042	184,761	4.14
11/27/2011	36,047,543	158,501	4.08
12/28/2011	36,276,413	228,870	5.13
1/25/2012	36,514,536	238,123	5.91
2/26/2012	36,773,626	259,090	5.62
3/5/2012	36,896,475	122,849	10.66
4/30/2012	37,580,671	684,196	8.48
5/24/2012	37,824,929	244,258	7.07
6/26/2012	38,215,759	390,830	8.22
7/24/2012	38,418,807	203,048	5.04
4/28/2014	38,532,207	113,400	0.12
5/30/2014	38,803,872	271,665	5.90
6/26/2014	39,056,137	252,265	6.49
7/28/2014	39,240,959	184,822	4.01
8/20/2014	39,395,714	154,755	4.67
9/25/2014	39,561,756	166,042	3.20
10/29/2014	39,826,220	264,464	5.40
12/1/2014	39,893,254	67,034	1.41
12/31/2014	40,134,181	240,927	5.58
1/29/2015	40,304,256	170,075	4.07
2/16/2015	40,370,054	65,798	2.54
3/31/2015	40,477,671	107,617	1.74
4/20/2015	40,569,980	92,309	3.21
5/11/2015	40,708,427	138,447	4.58
6/22/2015	41,035,368	326,941	5.41
7/27/2015	41,412,413	377,045	7.48
8/18/2015	41,650,303	237,890	7.51
9/29/2015	41,908,299	257,996	4.27
10/22/2015	42,039,937	131,638	3.97

**Notes:**

1. Averages are based on total flow divided by time assuming 100% run time.
2. Correct total for bag filter flow meter is based on running cumulative value from March 2008 Annual Report plus monthly differential.
3. Bag filter flow meter is located between bag filters and GAC vessels and receives the cumulative flow from the recovery wells and the French drain.

**Table 5. Distribution of Treatment System Discharge Volume  
per Infiltration Gallery  
Cape Fear Wood Preserving Superfund Site**

Location ID	9/29/2015 Meter Reading  (gallons)	10/22/2015 Meter Reading  (gallons)	Discharge Volume Based on Flow Meters  (gallons)	Distribution of Infiltration Gallery Discharge  (Percentage)
IG-1	NR	NR	NA	NA
IG-2	NR	NR	NA	NA
IG-3	NR	NR	NA	NA
IG-4	7,108,951	7,110,548	1,597	2.5%
IG-5	2,300,908	2,300,338	-570	-0.9%
IG-7	flooded	4,058,228	NA	NA
IG-8	5,625,235	5,625,245	10	0.0%
IG-9	10,935,679	10,956,454	20,775	32.5%
IG-10	3,205,384	3,206,634	1,250	2.0%
IG-11	3,420,395	3,461,314	40,919	64.0%
<b>Total</b>	<b>32,596,552</b>	<b>36,718,761</b>	<b>63,981</b>	<b>100%</b>

**Amount of Groundwater Pumped during Period per Table 4**

**131,638**

**Difference between the Influent Volume per Table 4 and the  
Individual Gallery Totals**

**67,657**

**Table 6. Configuration of Extraction Points  
Cape Fear Wood Preserving Superfund Site**

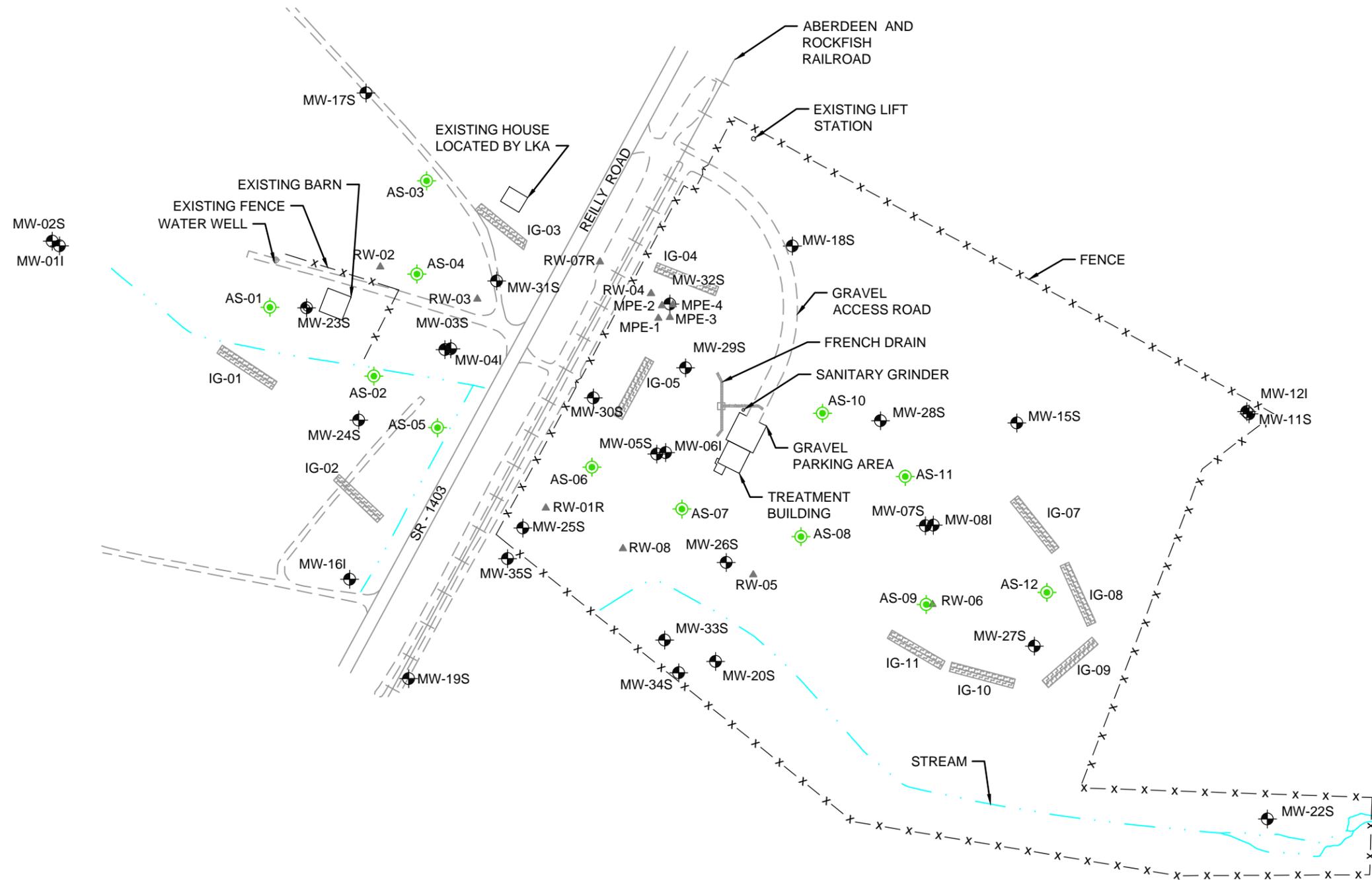
<b>Location</b>	<b>Status</b>	<b>Top or Bottom Loading</b>	<b>Diameter (in)</b>	<b>Pump Intake (ft bgs)</b>
RW-1R	On-line	Bottom	6	25.0
RW-2	Abandoned	N/A	6	N/A
RW-3	Abandoned	N/A	6	N/A
RW-4	Abandoned	N/A	6	N/A
RW-5	On-line	Top	6	17.0
RW-6	Abandoned	N/A	6	N/A
RW-7R	On-line	Bottom	6	21.0
RW-8	On-line	Bottom	6	27.0
MPE-1	On-line	Bottom	4	27.0
MPE-2	On-line	Bottom	4	27.5
MPE-3	Off-line	Bottom	4	27.5
MPE-4	Off-line	Bottom	4	28.0

**Notes:**

1. ft bgs indicates feet below ground surface
2. N/A indicates not applicable
3. RW-7R was re-installed on 1/29/15.

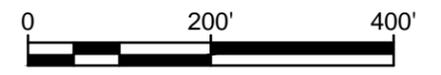
# FIGURES

# CAPE FEAR WOOD PRESERVING SUPERFUND SITE



### LEGEND

<ul style="list-style-type: none"> <li> CENTERLINE OF STREAM</li> <li> GRAVEL ACCESS ROAD</li> <li> FENCE</li> <li> RAILROAD</li> <li> INFILTRATION GALLERY LOCATION (IG)</li> </ul>	<ul style="list-style-type: none"> <li> AS-01 AIR SPARGE WELL LOCATION (AS)</li> <li> MW-01I MONITORING WELL LOCATION (MW)</li> <li> RW-01R RECOVERY WELL LOCATION (RW)</li> </ul>	
--	--	--



SCALE IN FEET

CAPE FEAR WOOD PRESERVING FACILITY  
1219 S REILLY ROAD, FAYETTEVILLE, NC



FIGURE

1

PROJECT NO: GN5550

APRIL 2014

M:\CAPE FEAR WOOD PRESERVING FACILITY\FIGURES\5550F002

# APPENDIX A

## Site Visit Log and System Readings

Location CEWP

Date 10/12/15

Project / Client McDERMID

Weather Sunny 60'S  
Personnel R Lane

Tasks Weekly site visit  
0700 arrive at site, Effluent

High level alarm on, reset  
set alarm, Turn on INF pumps

Pump DNARL 7.0 gal

Bag Filter Totalizer

Reset Perm

42790 12617324

GPM 4.6 Before

GPM 224 After

# 0800 Depart site

Location SEAP

Date 10/15/05

Project / Client MCDEMP

TRK

ASKE: SYSTEM REPORT

TECH: JLC (EEM)

TEMP: sunny 70's

1110 - arrived at the site, the system is down due to high level in ELL tank. The level is both down to 3' ; next alarm & notified the system.

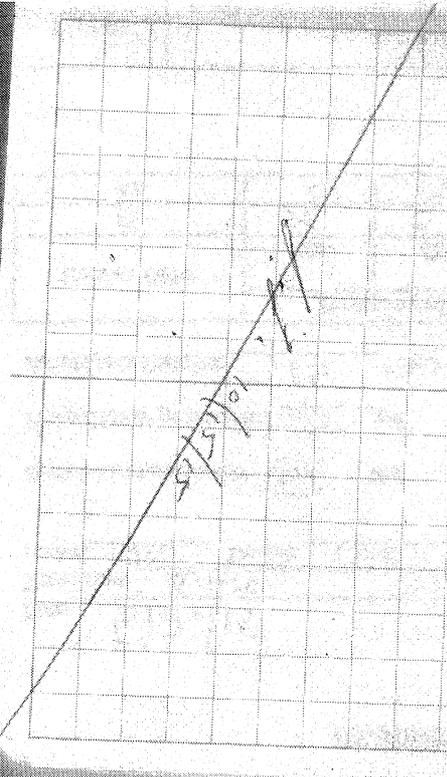
1150 - flow to GAC unit = 19.6 GPM

1145 - air temp oil level is OK

1230 - check up inside of Bldg.

1240 - system seems to be showing normal.

1500 - depart site



Location

CFUR

Project / Client

MEDEM R

Date

10/22/15

Weather Sunny 50's  
Personel R Lane

Tasks weekly site visit  
monthly readings

0845 Arrive at site, system  
running. Take monthly  
readings inside  
building, gauge and  
check flow IT-wells  
Gauge and measure for  
DNAPL in RW wells  
1045 Depart site

O&M Checklist

Cape Fear Wood Preserving Superfund Site

Fayetteville, North Carolina

EPM Job No: 

NCDEMR
--------

  
 Date: 

10/22/15
----------

Time onsite: 

0845
------

  
 Time offsite: 

1045
------

Personnel onsite: Rich Lane  
 Groundwater Extraction System Running: At Arrival: 

Yes
-----

 At Departure: 

Yes
-----

If No, Explain Reason: \_\_\_\_\_  
 Reason for Site Visit: \_\_\_\_\_

**ACTIVITIES COMPLETED**

Change Bag Filters (50/25): 

Yes
-----

 Pump off OWS: 

Yes
-----

 Product Recovered (gal): 

6.0
-----

**Air Compressors:**  
 AC-1: Running? 

Yes
-----

 Pressure (psi): 

80
----

 Hour Meter: 

18890
-------

  
 AC-2: Running? 

Yes
-----

 Pressure (psi): 

80
----

 Hour Meter: 

18896
-------

  
 Main Compressed Air Line Pressure (psi): 

70
----

  
 Compressed Air Line for Pumps Gauge (psi): 

70
----

  
 Air Dryer Effluent Temperature (F): 

N/A
-----

  
 Check Oil Level in ACs (Y/N): 

Y
---

  
 Check Air Compressor Belt Tightness (Y/N): 

Y
---

  
 Check Compressed Air Lines for Leaks (Y/N): 

Y
---

Green

Comments: None

**Treatment System:**

Pre-carbon Pressure Gauge (psi): 

11.473
--------

 T-1000 Effluent Tank Level (ft): 

6.8
-----

  
 Mid-Carbon Pressure Gauge (psi): 

11.325
--------

 T-1000 Influent Tank Level (ft): 

2.03
------

  
 Post-Carbon Pressure Gauge (psi): 

4.9596
--------

Influent Transfer Pump P-1000-1 Pressure Gauge (psi): 

10.638
--------

 Effluent Transfer Pump P-1200-1 Pressure Gauge (psi): 

33
----

  
 Influent Transfer Pump P-1000-2 Pressure Gauge (psi): 

4.49
------

 Effluent Transfer Pump P-1200-2 Pressure Gauge (psi): 

33
----

  
 Phase Sep. Transfer Pump P-1100-1 Pressure Gauge (psi): 

5
---

 Inlet Tank Elevation (ft): 

13.61
-------

  
 Phase Sep. Transfer Pump P-1100-2 Pressure Gauge (psi): 

7
---

 Outlet Tank Elevation (ft): 

33.26
-------

Comments: \_\_\_\_\_

**Totalizers:**

Bag filter totalizer (gal): 

1270671
---------

 Flow rate (gpm): 

24.4
------

  
 Infiltration Gallery Totalizer (gal): 

8670572
---------

 Flow rate (gpm): 

6.4
-----

  
 Other: Electric Meter Reading (kW): 

81106
-------

**Recovery Well Gauging & System Readings**

Recovery Well I.D.	Pump On/Off (Y/N)	Depth to Water (ft)	Thickness of Product (ft)	Depth to Bottom (ft)	Pressure in Bldg (PSI)	Pressure in Vault/Time	Totalizer (gal)	Notes
RW-1R	Y	21.15	Trace	24.66				
RW-2								
RW-3								
RW-4		3.60	N/A	24.60				
RW-5	Y							
RW-6	Y	18.64	1.36	23.20				
RW-7R	Y	27.40	Trace	28.60				
RW-8								
FRENCH DRAIN								
MPE Wells							11624957	

Notes:

**Infiltration Gallery Gauging & System Readings**

Well ID	Piezometer Depth to Water (ft)	Flow Rate (GPM)	Cumulative Flow Volume (gal)	Noticeable Flow (Y/N)	Notes
Gallery 1					
Gallery 2					
Gallery 3					
Gallery 4	2.15		0110548	Y	
Gallery 5	0.71		0230038	N	Tighten water meter. leaking water
Gallery 7	1.60		0405328	Y	
Gallery 8	2.08		05625845	N	
Gallery 9	2.73		10956454	Y	
Gallery 10	2.05		03206834	N	
Gallery 11	7.13		05461314	Y	

Notes:

## APPENDIX B

### Maintenance Records

Equipment	Oil water separator				
Manufacturer					
Model Number					
Serial Number					
Date	Run Time (Hours)	Diagnosis/Work Performed	Maintenance (M)/Trouble-shooting(T)	Operating Properly (yes/no)	Work Performed by
11/6/2014		Pumped DNAPL to drum	M	Y	JL
11/21 - 24/2014		Annual Cleaning (drained and cleaned)	M	Y	JL/AH/RL/DH
11/24/2014		Pumped DNAPL to drum	M	Y	JL/AH/RL/DH
12/3/2014		Pumped DNAPL to drum	M	Y	DH/RL
12/10/2014		Pumped DNAPL to drum	M	Y	DH
12/18/2014		Pumped DNAPL to drum	M	Y	DH
1/6/2015		Pumped DNAPL to drum	M	Y	RL
1/12/2015		Pumped DNAPL to drum	M	Y	RL
1/20/2015		Pumped DNAPL to drum	M	Y	RL
2/2/2015		Pumped DNAPL to drum	M	Y	RL/DH
2/10/2015		Pumped DNAPL to drum	M	Y	RL/DH
2/16/2015		Pumped DNAPL to drum	M	Y	RL/DH/AH
3/4/2015		Pumped DNAPL to drum	M	Y	RL
3/11/2015		Pumped DNAPL to drum	M	Y	RL
3/16/2015		Pumped DNAPL to drum	M	Y	RL
3/31/2015		Pumped DNAPL to drum	M	Y	RL
4/7/2015		Pumped DNAPL to drum	M	Y	RL/DH
4/15/2015		Pumped DNAPL to drum	M	Y	RL
4/20/2015		Pumped DNAPL to drum	M	Y	RL
5/11/2015		Pumped DNAPL to drum	M	Y	DH
5/20/2015		Pumped DNAPL to drum	M	Y	DH
5/27/2015		Pumped DNAPL to drum	M	Y	JL/AH/DH
5/27/2015		Pressure Wash OWS after draining	M	Y	JL/AH/DH
6/4/2015		Pumped DNAPL to drum	M	Y	RL
6/15/2015		Pumped DNAPL to drum	M	Y	DH
6/29/2015		Pumped DNAPL to drum	M	Y	RL
7/6/2015		Pumped DNAPL to drum	M	Y	DH
7/15/2015		Pumped DNAPL to drum	M	Y	JL
7/20/2015		Pumped DNAPL to drum	M	Y	RL
7/27/2015		Pumped DNAPL to drum	M	Y	AH/DH
8/5/2015		Pumped DNAPL to drum	M	Y	RL/DH
8/12/2015		Pumped DNAPL to drum	M	Y	DH
8/18/2015		Clean OWS	M	Y	AH/DH/RL
9/2/2015		Pumped DNAPL to drum	M	Y	RL
9/8/2015		Pumped DNAPL to drum	M	Y	DH
9/18/2015		Pumped DNAPL to drum	M	Y	DH
9/29/2015		Pumped DNAPL to drum	M	Y	AH
10/12/2015		Pumped DNAPL to drum	M	Y	RL
10/22/2015		Pumped DNAPL to drum	M	Y	RL