

MEMORANDUM

To: Billy Meyer

From: Christie Zawtocky, PE
Timothy Klotz

Date: January 14, 2014

Project: One Hour Martinizing Site, DSCA ID 32-0013
1103 W Club Blvd, Durham, NC

Subject: Monthly Update

Hart & Hickman, PC (H&H) is proceeding with implementation of the Remedial Action Plan (RAP) for the One Hour Martinizing site. A brief summary of recently completed activities and upcoming activities is provided below. An updated project calendar is attached.

Monthly Vapor Field Screening

On December 19, 2013 and January 8, 2014, H&H completed monthly vapor field screening events at the site. The January event was completed during the first day of EHC injection activities at the site. Each event included measuring total volatile organic compounds (VOCs), methane, carbon dioxide, and oxygen in soil vapor, indoor air, and outdoor ambient air. The primary purpose of the sampling is to confirm methane levels are within acceptable standards. Measurements were collected at the following locations:

- Soil Vapor Monitoring Points: SV-8S, SV-8I, SV-18S, SV-19S, SV-20S, SV-20D, SV-29S, SV-55S, SV-55I
- Excavation Vent Exhaust Pipe
- Sub-Slab Depressurization (SSD) System Exhaust and Indoor Air at 1414 Watts St (Triangle Family Church)
- Ambient, Outdoor Air on Source Property

The field screening data are summarized in the attached Table 1, and the methane readings are shown on the attached Figure 1. Consistent with previous events, recorded field measurements indicate that methane was detected in the sampled source property soil vapor points (SV-8S, SV-8I, SV-55S and SV-55I) at low levels ranging from 0.2 to 0.6% by volume. These methane readings are well within acceptable levels. The monthly methane field readings generally appear to be stable or decreasing over time between January 2013 and January 2014.

Methane was detected in the vapors from the excavation passive exhaust vent at a level of 10.9% by volume in December and 8.7% by volume in January. These vapors are exhausted into the

atmosphere through the stack installed on the source property where they dissipate into the atmosphere. Ambient air monitoring conducted near ground level in the immediate vicinity of the exhaust vent did not detect methane in December and only detected a very low level (i.e., 0.2% by volume) in January. Methane also was not detected in the sub-slab depressurization system exhaust or indoor air at the Triangle Family Church at 1414 Watts St during the December sampling event. The church could not be accessed for sampling during the January sampling event.

VOCs were detected in each of the monitored soil vapor points. The highest VOC concentration was detected in the source property soil vapor point SV-55S (421 ppm in December) and SV-8I (534 ppm in January) located near the source excavation area. The vapor points will continue to be monitored on a monthly basis to evaluate changes over time. As indicated on the attached calendar, an additional field screening event is scheduled approximately two weeks after completion of the injection activities on January 30, 2014.

Indoor Air Monitoring

In December 2013, H&H conducted quarterly indoor air monitoring at the three structures adjacent to the source property where vapor mitigation systems are in place (1419 Dollar St, 1421 Dollar St, and 1414 Watts St). H&H collected two 14-day Radiello samples from the 1419 Dollar St residence and the 1421 Dollar St residence between 12/3/13 and 12/17/13). On December 8, 2013, H&H collected two 3-hour Summa canister indoor air samples from the Triangle Family Church at 1414 Watts St during the church's Sunday service. The indoor air samples were submitted for laboratory analysis of tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride. The analytical results will be provided in the next monthly update.

Pre-Injection Sampling Activities

In accordance with the RAP, H&H collected groundwater and soil gas samples in December 2013 to establish baseline, pre-injection site conditions. The pre-injection groundwater and soil gas sampling activities were completed during the week of December 16, 2013. Groundwater samples were collected from the following locations:

- Source property: MW-3R, MW-3I, MW-4R, MW-4I, MW-21, MW-22S, MW-22I, MW-23S, MW-23I
- West of source property: MW-10
- South of source property: MW-15S, MW-15I, MW-18
- East of source property: MW-14S, MW-14I, MW-16S, MW-16I

The groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260 to evaluate current concentrations of dry-cleaning related constituents. In accordance with the UIC permit, the groundwater samples were also evaluated for pH, temperature, dissolved oxygen, conductivity, oxidation-reduction potential, methane, ethane, and ethene.

The pre-injection soil gas sampling event included collecting soil gas samples from the locations listed below for analysis of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC by EPA Method TO-15.

- Source property: SV-8S, SV-8I, SV-14, SV-55S, SV-55I
- West of source property: SV-49S, SV-49D, SV-50
- South of source property: SV-27S, SV-27D, SV-28D
- East of source property: SV-18, SV-19, SV-20S, SV-20D, SV-21S, SV-21D, SV-25S, SV-25D, SV-29S, SV-29D

Please note that SV-43S and SV-43D were scheduled to be sampled, but access to these locations could not be obtained. Also, SV-17 on the source property was originally scheduled to be sampled. H&H substituted SV-14, because SV-17 was damaged.

The results of the pre-injection groundwater and soil gas sampling activities will be included in the next monthly update. Following completion of the EHC injection activities, monthly post-injection groundwater and soil gas sampling will be conducted for three months. The post-injection sampling events will include sampling the same locations and performing the same analyses as the pre-injection sampling event. Additional post-injection monitoring activities will include indoor air sampling and vapor field screening, as described in the RAP. A calendar which shows the post-injection schedule through April 2013 is attached.

Injection of EHC

The RAP includes injection of EHC (a commercial remediation product that contains zero-valent iron and carbon) to treat groundwater impacts at the source property targeting PCE groundwater concentrations of 15 mg/L or greater. As previously indicated, the injection plan was modified based on the August and September 2013 groundwater sampling results to target the extent of PCE impacts exceeding 15 mg/L. The attached Figures 2A and 2B depict the extent of groundwater PCE impacts exceeding 15 mg/L in the shallow and intermediate groundwater zones at the site and the modified injection layout. The modified injection plan includes 30 shallow injection locations and 14 intermediate injection locations. The shallow injections target a vertical interval from approximately 22 to 40 ft below ground surface (bgs), and the intermediate injections target a vertical interval from approximately 45 to 55 ft bgs.

Prior to the start of the injection activities, the DSCA Program conducted a public information session on December 5, 2013, notified the adjacent property owners of the planned schedule, and posted a notification flyer at the bus stop located near the source property.

On January 6, 2014, H&H and the injection contractor, Vironex, mobilized to the site to prepare for and begin the EHC injection activities. Due to road closures associated with winter weather, the EHC material could not be delivered to the site until January 8, 2014. On January 6 and 7, H&H and Vironex were able to conduct set-up activities associated with the injection, including marking and clearing proposed injection locations, mobilizing injection equipment and storage

containers, and setting up and filling a temporary water storage tank for use during the injection. On January 8, 2014, the EHC material was delivered to the site and injection activities commenced.

EHC injection activities were performed at the site on January 8-10 and January 13, 2014. During this time, a total of 7,758 lbs of EHC was injected into 16 injection points. Injection activities were originally scheduled for January 11, 2014, but could not be performed due to equipment problems. Injection activities are continuing at the site January 14-18, 2014. The DSCA Program will update the project calendar on the website, if the injection activities extend past January 18, 2014.

TABLE

Table 1: Soil Vapor Point and Indoor/Outdoor Air Field Measurements						ADT 1
DSCA ID No.: 32-0013						
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Total Volatile Organic Compounds (VOC)	Methane	Carbon Dioxide	Oxygen
			ppm	%	%	%
SV-8S	5.00	11/27/12	427	0.1	1.7	20.0
		01/08/13	1,833	0.8	2.2	18.7
		02/07/13	NA	0.1	2.0	19.2
		03/08/13	NA	0.0	2.4	18.8
		04/08/13	465	0.0	2.4	17.7
		05/08/13	473	0.0	4.1	15.7
		06/13/13	360	0.0	5.7	13.7
		07/08/13	349	0.0	5.8	13.4
		08/14/13	427	0.1	5.4	15.6
		09/11/13	423	0.2	4.1	15.1
		10/09/13	313	0.3	3.0	18.0
		11/13/13	385	0.2	3.4	16.2
		12/19/13	390	0.2	3.1	16.1
01/08/14	492	0.2	3.8	18.4		
SV-8I	17.00	11/27/12	>9,999	0.0	2.5	18.8
		01/08/13	2222	1.3	2.8	18.3
		02/07/13	NM	0.2	2.2	18.6
		03/08/13	NM	0.1	2.4	17.9
		04/08/13	4,098	0.2	1.8	17.6
		05/08/13	1,720	0.2	3.9	13.3
		06/13/13	248	0.2	1.8	16.5
		07/08/13	305	0.2	2.3	15.9
		08/14/13	165	0.3	2.1	15.6
		09/11/13	3,056	0.2	1.2	11.2
		10/09/13	119	0.5	2.5	15.9
		11/13/13	310	0.3	1.8	12.4
		12/19/13	320	0.4	2.1	13.4
01/08/14	534	0.2	2.4	19.4		
SV-18	5.00	11/27/12	22.3	0.0	2.5	19.2
		01/08/13	51.1	0.4	0.0	21.5
		02/07/13	NM	0.0	2.3	18.6
		03/08/13	NM	0.0	4.1	16.9
		04/08/13	2.1	0.0	2.5	18.1
		05/08/13	14.9	0.0	4.9	15.9
		06/13/13	20.7	0.0	4.7	16.2
		08/14/13	26.1	0.1	3.0	18.2
		09/11/13	84.5	0.1	2.9	16.5
		10/09/13	201	0.0	3.5	17.5
		11/13/13	102	0.0	3.1	16.8
		12/19/13	100	0.0	3.2	15.8
		01/08/14	52.5	0.0	3.6	18.5
SV-19	5.00	11/27/12	2.25	0.0	10.8	11.5
		01/08/13	4.50	0.6	9.1	13.3
		02/07/13	NM	0.0	8.6	13.9
		03/08/13	NM	0.0	8.3	13.5
		04/08/13	1.2	0.0	8.3	13.7
		05/08/13	0.9	0.0	9.1	13.0
		06/13/13	6.2	0.0	9.7	11.7
		08/15/13	4.4	0.0	9.2	12.1
		09/11/13	22.9	0.0	10.1	9.3
		10/09/13	156	0.0	11.9	9.8
		11/13/13	86.4	0.0	9.8	10.4
		12/19/13	92.6	0.0	8.7	13.4
		01/08/14	91.6	0.0	9.8	13.5

Table 1: Soil Vapor Point and Indoor/Outdoor Air Field Measurements						ADT 1
DSCA ID No.: 32-0013						
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Total Volatile Organic Compounds (VOC)	Methane	Carbon Dioxide	Oxygen
			ppm	%	%	%
SV-20S	5.00	11/27/12	75.5	0.0	6.3	16.1
		01/08/13	15.0	1.3	5.0	16.9
		02/07/13	NM	0.1	6.4	15.5
		03/08/13	NM	0.0	5.0	16.0
		04/08/13	47.4	0.0	5.2	15.3
		05/08/13	62.5	0.0	6.3	14.6
		06/13/13	64.0	0.0	7.7	13.1
		08/15/13	61.8	0.0	6.8	13.6
		09/11/13	60.4	0.1	5.1	15.3
		10/09/13	89.7	0.1	7.0	15.3
		11/13/13	78.1	0.0	6.8	14.4
		12/19/13	84.1	0.0	7.2	14.8
01/08/14	104	0.0	7.3	15.5		
SV-20D	20.00	01/08/13	11.10	0.4	7.6	15.2
		02/07/13	NM	0.1	6.7	15.6
		03/08/13	NM	0.0	6.8	14.9
		04/08/13	46.8	0.0	6.7	15.2
		05/08/13	61.4	0.0	5.8	15.1
		06/13/13	58.9	0.0	7.1	13.5
		08/15/13	60.1	0.0	6.6	14.1
		09/11/13	93.1	0.1	7.6	12.5
		10/09/13	113	0.1	8.8	13.4
		11/13/13	101	0.0	8.2	12.8
		12/19/13	98.6	0.0	8.6	11.4
		01/08/14	115	0.0	8.6	15.3
SV-29S	5.00	11/27/12	344	0.0	1.9	19.9
		01/08/13	96.3	0.3	2.0	19.8
		02/07/13	NM	0.1	2.3	18.6
		03/08/13	NM	0.0	2.8	17.6
		04/08/13	235	0.0	2.6	17.2
		05/08/13	151	0.0	3.3	16.7
		06/13/13	197	0.0	3.6	16.2
		08/14/13	317	0.1	3.4	17.7
		09/11/13	268	0.1	2.2	17.6
		10/09/13	356	0.0	3.2	18.0
		11/13/13	294	0.0	2.8	17.8
		12/19/13	264	0.0	3.1	15.4
01/08/14	475	0.0	3.4	18.8		
SV-55S	5.00	11/27/12	430	0.2	0.2	21.1
		01/08/13	295	4.1	3.0	14.7
		02/07/13	NM	2.1	2.8	14.6
		03/08/13	NM	1.8	3.1	14.0
		04/08/13	311	1.4	3.0	14.3
		05/08/13	290	1.1	3.9	13.3
		06/13/13	295	0.8	4.5	11.8
		07/08/13	258	0.7	4.9	11.1
		08/14/13	133	0.2	1.8	17.8
		09/11/13	229	0.9	5.5	10.6
		10/09/13	501	0.8	5.4	13.6
		11/13/13	444	0.4	4.8	11.1
12/19/13	421	0.6	4.2	16.2		
01/08/14	191	0.6	5.2	14.0		

Table 1: Soil Vapor Point and Indoor/Outdoor Air Field Measurements						ADT 1	
DSCA ID No.: 32-0013							
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Total Volatile Organic Compounds (VOC)	Methane	Carbon Dioxide	Oxygen	
			ppm	%	%	%	
SV-55I	17.00	11/27/12	12	4.1	0.6	12.4	
		01/08/13	442	3.6	2.0	12.1	
		02/07/13	NM	1.4	2.9	14.8	
		03/08/13	NM	1.6	3.5	14.6	
		04/08/13	NM*				
		05/08/13	NM	1.6	2.7	10.7	
		06/13/13	86.5	1.5	1.6	11.0	
		07/08/13	NM	1.5	2.1	10.6	
		08/14/13	26.7	0.3	0.2	16.5	
		09/11/13	31.3	0.3	1.9	15.4	
		10/09/13	4.9	0.1	0.0	21.2	
		11/13/13	17.4	0.2	1.0	16.5	
		12/19/13	19.4	0.4	1.0	18.1	
01/08/14	127	0.7	3.2	16.9			
Vent Exhaust Pipe		11/27/12	38.0	12.5	11.1	9.7	
		01/08/13	173	11.0	9.3	10.6	
		02/07/13	NM	17.3	15.9	1.5	
		03/08/13	NM	16.4	15.0	1.7	
		04/08/13	6.5	12.6	11.7	4.9	
		05/08/13	10.8	15.0	14.4	1.9	
		06/13/13	9.6	14.9	13.4	0.7	
		07/08/13	9.6	14.5	13.0	0.8	
		08/14/13	17.7	15.2	14.5	1.7	
		09/11/13	14.7	15.7	13.4	1.5	
		10/09/13	16.0	13.8	10.4	6.7	
		11/13/13	15.8	12.9	11.1	4.4	
		12/19/13	12.8	10.9	10.0	3.8	
	01/08/14	9.2	8.7	12.0	5.1		
SSD System Triangle Family Church 1414 Watts Street		11/27/12	2.4	0.1	0.0	21.0	
		01/08/13	159	1.0	0.0	21.1	
		02/07/13	NM	0.2	0.0	21.4	
		03/08/13	NM	0.0	0.0	20.8	
		04/08/13	0.0	0.0	0.0	20.8	
		05/08/13	0.0	0.0	0.0	20.6	
		06/13/13	0.0	0.0	0.0	20.4	
		07/08/13	0.0	0.0	0.0	20.5	
		08/14/13	4.4	0.1	0.0	20.5	
		09/18/13	0.5	0.1	0.0	20.2	
		10/09/13	6.1	0.1	0.1	21.1	
		11/13/13	4.6	0.0	0.0	20.8	
		12/19/13	5.2	0.0	0.0	21.4	
	01/08/14	NM	NM	NM	NM		

Table 1: Soil Vapor Point and Indoor/Outdoor Air Field Measurements						ADT 1
DSCA ID No.: 32-0013						
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Total Volatile Organic Compounds (VOC)	Methane	Carbon Dioxide	Oxygen
			ppm	%	%	%
Indoor Air Triangle Family Church 1414 Watts Street		11/27/12	0.0	0.0	0.0	21.0
		01/08/13	0.0	0.0	0.0	20.9
		02/07/13	NM	0.0	0.0	20.8
		03/08/13	NM	0.0	0.0	21.0
		04/08/13	0.0	0.0	0.0	20.9
		05/08/13	0.0	0.0	0.0	20.5
		06/13/13	0.0	0.0	0.0	20.5
		07/08/13	0.0	0.0	0.0	20.5
		08/14/13	0.0	0.1	0.0	20.6
		09/18/13	0.0	0.0	0.0	20.3
		10/09/13	0.0	0.1	0.0	21.2
		11/13/13	0.0	0.0	0.0	20.8
		12/19/13	0.0	0.0	0.0	21.2
		01/08/14	NM	NM	NM	NM
Ambient, Outdoor Air (near excavation area on subject site)		11/27/12	0.0	0.0	0.0	20.9
		01/08/13	0.0	0.0	0.0	20.9
		02/07/13	NM	0.0	0.0	21.5
		03/08/13	NM	0.0	0.0	20.9
		04/08/13	0.0	0.0	0.0	20.9
		05/08/13	0.0	0.0	0.0	20.4
		06/13/13	0.0	0.0	0.0	20.4
		07/08/13	0.0	0.0	0.0	20.4
		08/14/13	0.0	0.0	0.0	20.6
		09/11/13	0.0	0.0	0.0	20.3
		10/09/13	0.0	0.3	0.0	21.3
		11/13/13	0.0	0.0	0.0	22.1
		12/19/13	0.0	0.0	0.0	22.4
	01/08/14	0.0	0.2	0.2	20.6	

Notes:
 * = Water was present in soil vapor point SV-55I - little to no air flow
 1. VOC concentrations measured using a photoionization detector (PID)
 2. Methane, carbon dioxide, and oxygen concentrations measured using GEM 2000 multi-gas meter.
 3. NM denotes not measured; NA denotes not available.

FIGURES

S:\AAA-Master Projects\DS0-84 One Hr Martinizing (former BB&T)\Website Updates\January 2014\DC320013_20140106_Figures.dwg, Fig 1 Methane

W. CLUB BOULEVARD

FORMER ONE HOUR MARTINIZING FACILITY

RESTAURANT (1129 W. CLUB)

PASSIVE EXCAVATION VENT STACK		
11/27/12	12.5%	
1/8/13	11.0%	
2/7/13	17.3%	
3/8/13	16.4%	
4/8/13	12.6%	
5/8/13	15.0%	
6/13/13	14.9%	
7/8/13	14.5%	
8/14/13	15.2%	
9/11/13	15.7%	
10/9/13	13.8%	
11/13/13	12.9%	
12/19/13	10.9%	
01/08/14	8.7%	

PASSIVE EXCAVATION VENT STACK

	SV-55S	SV-55I
11/27/12	0.2%	4.1%
1/8/13	4.1%	3.6%
2/7/13	2.1%	1.4%
3/8/13	1.8%	1.6%
4/8/13	1.4%	NM
5/8/13	1.1%	1.6%
6/13/13	0.8%	1.5%
7/8/13	0.7%	1.5%
8/14/13	0.2%	0.3%
9/11/13	0.9%	0.3%
10/9/13	0.8%	0.1%
11/13/13	0.4%	0.2%
12/19/13	0.6%	0.4%
01/08/14	0.6%	0.7%

SSD SYSTEM EXHAUST FAN		
11/27/12	0.1%	
1/8/13	1.0%	
2/7/13	0.2%	
3/8/13	0.0%	
4/8/13	0.0%	
5/8/13	0.0%	
6/13/13	0.0%	
7/8/13	0.0%	
8/14/13	0.1%	
9/11/13	0.1%	
10/9/13	0.1%	
11/13/13	0.0%	
12/19/13	0.0%	
01/08/14	NM	

METHANE WAS NOT DETECTED IN AMBIENT AIR AT GROUND LEVEL AT THE SUBJECT SITE IN DECEMBER 2013, AND IT WAS DETECTED AT A CONCENTRATION OF 0.2% IN JANUARY 2014

SOIL VAPOR VENT A
SOIL VAPOR VENT B
SOIL VAPOR VENT C
SOIL VAPOR VENT D

TRIANGLE FAMILY CHURCH (1414 WATTS)

METHANE WAS NOT DETECTED IN INDOOR AIR IN DECEMBER 2013. THE CHURCH COULD NOT BE ACCESSED IN JANUARY 2014.

	SV-8S	SV-8I
11/27/12	0.1%	0.0%
1/8/13	0.8%	1.3%
2/7/13	0.1%	0.2%
3/8/13	0.0%	0.1%
4/8/13	0.0%	0.2%
5/8/13	0.0%	0.2%
6/13/13	0.0%	0.2%
7/8/13	0.0%	0.2%
8/14/13	0.1%	0.3%
9/11/13	0.2%	0.2%
10/9/13	0.3%	0.5%
11/13/13	0.2%	0.3%
12/19/13	0.2%	0.4%
01/08/14	0.2%	0.2%

SV-19		
11/27/12	0.0%	
1/8/13	0.6%	
2/7/13	0.0%	
3/8/13	0.0%	
4/8/13	0.0%	
5/8/13	0.0%	
6/13/13	0.0%	
8/15/13	0.0%	
9/11/13	0.0%	
10/9/13	0.0%	
11/13/13	0.0%	
12/19/13	0.0%	
01/08/14	0.0%	

	SV-20S	SV-20D
11/27/12	0.0%	0.4%
1/8/13	1.3%	0.1%
2/7/13	0.1%	0.0%
3/8/13	0.0%	0.0%
4/8/13	0.0%	0.0%
5/8/13	0.0%	0.0%
6/13/13	0.0%	0.0%
8/15/13	0.0%	0.0%
9/11/13	0.1%	0.1%
10/9/13	0.1%	0.1%
11/13/13	0.0%	0.0%
12/19/13	0.0%	0.0%
01/08/14	0.0%	0.0%

SV-18		
11/27/12	0.0%	
1/8/13	0.4%	
2/7/13	0.0%	
3/8/13	0.0%	
4/8/13	0.0%	
5/8/13	0.0%	
6/13/13	0.0%	
8/14/13	0.1%	
9/11/13	0.1%	
10/9/13	0.0%	
11/13/13	0.0%	
12/19/13	0.0%	
01/08/14	0.0%	

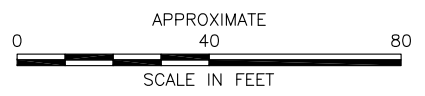
SV-29S		
11/27/12	0.0%	
1/8/13	0.3%	
2/7/13	0.1%	
3/8/13	0.0%	
4/8/13	0.0%	
5/8/13	0.0%	
6/13/13	0.0%	
8/14/13	0.1%	
9/11/13	0.1%	
10/9/13	0.0%	
11/13/13	0.0%	
12/19/13	0.0%	


LEGEND

- SOURCE PROPERTY BOUNDARY
- - - PROPERTY PARCEL
- ▲ SOIL GAS MONITORING POINT

SV-19		
11/27/12	0.0%	
1/8/13	0.6%	
2/7/13	0.0%	
3/8/13	0.0%	
4/8/13	0.0%	
5/8/13	0.0%	
6/13/13	0.0%	
8/15/13	0.0%	
9/11/13	0.0%	
10/9/13	0.0%	
11/13/13	0.0%	
12/19/13	0.0%	
01/08/14	0.0%	

- NOTES:
- DATA SOURCES: DURHAM COUNTY GIS, WITHERS & RAVENEL.
 - METHANE FIELD READINGS WERE MEASURED USING A GEM 2000 MULTI-GAS METER
 - NM = NOT MEASURED



TITLE METHANE FIELD MEASUREMENTS JANUARY 2014	
PROJECT ONE HOUR MARTINIZING DSCA ID NO: 32-0013 1103 WEST CLUB BLVD DURHAM, NORTH CAROLINA	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 1/10/14	REVISION NO. 0
JOB NO. DS0-84	FIGURE NO. 1

WATTS STR

DOLLAR AVE

RESIDENCE (1413 DOLLAR)

RESIDENCE (1414 DOLLAR)

RESIDENCE (1419 DOLLAR)

RESIDENCE (1417 DOLLAR)

RESIDENCE (1421 DOLLAR)

RESIDENCE (1423/1425 DOLLAR)

RESIDENCE (1422 DOLLAR)

RESIDENCE (1420 DOLLAR)

RESIDENCE (1418 DOLLAR)

RESIDENCE (1416 DOLLAR)

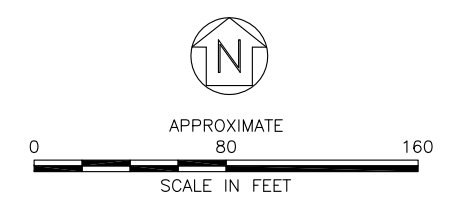
RESIDENCE (1414 DOLLAR)


S:\AAA-Master Projects\DSCA - DS0\DS0-84 One Hr Martinizing (former BB&T)\EHC Injection\DC20013_20131023_RevisionInjectionFigure.dwg, ATT58 PCE INT, 12/2/2013 1:37:05 PM.



- LEGEND**
- SITE PROPERTY BOUNDARY
 - - - PROPERTY PARCEL
 - ⊕ TYPE II MONITORING WELL
 - ⊕ TEMPORARY MONITORING WELL
 - 1.76 PCE CONCENTRATION IN mg/L
 - 15 PCE ISOCONTOUR LINE IN mg/L (DASHED WHERE INFERRED)
 - EXCAVATION AREA
 - PROPOSED INJECTION POINT (6-FT RADIUS)

- NOTES:**
1. SAMPLES FROM PERMANENT GROUNDWATER MONITORING WELLS COLLECTED ON 8/19/13 - 8/22/13.
 2. SAMPLES FROM TEMPORARY MONITORING WELLS COLLECTED ON 09/06/13.
 3. NS = NOT SAMPLED



TITLE		PROPOSED INTERMEDIATE INJECTION LOCATIONS	
PROJECT		ONE HOUR MARTINIZING DSCA ID NO: 32-0013 1103 WEST CLUB BLVD DURHAM, NORTH CAROLINA	
		2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology	
DATE: 11/5/13	REVISION NO. 0		
JOB NO. DS0-84	FIGURE NO. 2B		

PROJECT CALENDAR

~ January 2014 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<p>Note: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.</p>			1	2	3	4
	5	6	7	8 Methane Field Screening	9	10
Inject Adventus EHC						
12	13	14	15	16	17	18
Inject Adventus EHC						
19	20	21	22	23	24	25
26	27	28	29	30	31 Methane Field Screening	

~ February 2014 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<p>Note: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.</p>						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
				24-Hour Summa Canister Indoor Air Sampling at 1419 & 1421 Dollar Ave		
					14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	
16	17	18	19	20	21	22
3-Hour Summa Canister Indoor Air Sampling at 1414 Watts St	Post-Injection Groundwater and Soil Vapor Sampling					
	Methane Field Screening					
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
23	24	25	26	27	28	1
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						

~ March 2014 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2	3	4	5	6	7	8
9	10	11	12	13 24-Hour Summa Canister Indoor Air Sampling at 1419 & 1421 Dollar Ave	14 14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	15
16 3-Hour Summa Canister Indoor Air Sampling at 1414 Watts St	17-21 Post-Injection Groundwater and Soil Vapor Sampling					22
	17 Methane Field Screening					
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
23	24	25	26	27	28	29
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
30	31	Note: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.				

~ April 2014 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10 24-Hour Summa Canister Indoor Air Sampling at 1419 & 1421 Dollar Ave	11 14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	12
13 3-Hour Summa Canister Indoor Air Sampling at 1414 Watts St	14 Methane Field Screening	15	16	17	18	19
Post-Injection Groundwater and Soil Vapor Sampling						
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
20	21	22	23	24	25	26
14-Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
27	28	29	30	Note: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.		