

**PRELIMINARY SITE ASSESSMENT  
PARCEL 018, STATE PROJECT B-4490  
WBS ELEMENT 33727.1.1, CUMBERLAND COUNTY**

**REPLACE BRIDGE NO. 116 OVER CXS RAILROAD,  
NORTH SOUTH RAILROAD, AND HILLSBORO STREET  
ON NC 24-210, FAYETTEVILLE, NORTH CAROLINA**

Schnabel Project 11821014.33  
June 10, 2014





June 10, 2014

Mr. Mohammed A. Mulla, P.E., CPM, MCE  
NCDOT, Geotechnical Engineering Unit  
1020 Birch Ridge Drive  
Raleigh, NC 27610

RE:           State Project:   B-4490  
              WBS Element:  33727.1.1  
              County:       Cumberland  
              Description:  Replace Bridge No. 116 over CSX Railroad, North South Railroad, and  
                                  Hillsboro Street on NC 24-210 in Fayetteville

Subject:       **Preliminary Site Assessment for Parcel 018, Fayetteville, NC**  
                  Schnabel Engineering Project 11821014.33

Dear Mr. Mulla:

**SCHNABEL ENGINEERING SOUTH, P.C.** (Schnabel) is pleased to submit our report for this project. This study was performed in accordance with our proposal dated January 23, 2014 as authorized by the Notice to Proceed on January 24, 2014 and was conducted under our June 2, 2011 Agreement with the NCDOT.

We appreciate the opportunity to be of service for this project. Please call us if you have any questions regarding this report.

Sincerely,

**SCHNABEL ENGINEERING SOUTH, P.C.**

A handwritten signature in blue ink that reads "Benjamin L. Bradley".

Benjamin L. Bradley, GIT  
Project Scientist

A handwritten signature in blue ink that reads "Gregory B. Kuntz".

Gregory B. Kuntz, LG  
Senior Associate Scientist

BB/GK

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY SITE ASSESSMENT FOR PARCEL 018  
STATE PROJECT B-4490, WBS ELEMENT 33727.1.1  
REPLACE BRIDGE NO. 116 OVER CSX RAILROAD, NORTH SOUTH RAILROAD,  
AND HILLSBORO STREET ON NC 24-210  
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA**

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## **1.0 INTRODUCTION**

The North Carolina Department of Transportation (NCDOT) is replacing a bridge over CSX Railroad, North South Railroad, and Hillsboro Street on Highway 24/210 (W. Rowan Street) in the town of Fayetteville, located in Cumberland County, North Carolina. Acquisition of properties within the right-of-way (ROW) is necessary prior to road and bridge construction. Schnabel Engineering conducted Preliminary Site Assessments (PSAs) on 10 sites (thirteen parcels) located within the proposed ROW that are of concern to the NCDOT.

This report summarizes the results of field activities conducted during the PSA for the proposed property acquisition area (Study Area) identified by NCDOT as Parcel 018. The property is located at 528 Rowan Street and is a vacant property, currently owned by P&S Enterprises (Figure 1). The property line and topography are shown on Figure 2. The approximate NCDOT project limits that delineate the property acquisition area are shown on Figure 3.

The scope of work executed at the site was performed in general accordance with our cost proposal dated January 23, 2014 and was initiated based on a Notice to Proceed issued by the NCDOT Geotechnical Engineering Unit on January 24, 2014 under contract 7000012208, dated June 2, 2011.

## **2.0 BACKGROUND AND SITE DESCRIPTION**

Structures are not located on Parcel 018. The surface of the proposed ROW is covered with grass, trees, a concrete pad, and small patches of exposed asphalt. Several utilities cross the site including buried water and storm sewer lines, and overhead electric lines are located along the ROW. The information regarding prior site use provided to Schnabel Engineering by NCDOT was that the parcel was formerly used as an automobile repair shop, suggesting that site operations may have generated waste oil and degreaser solvents. This PSA is for the investigation of the entire parcel. Photographs of the Study Area are presented in Appendix A.

## **3.0 FIELD METHODOLOGY**

Prior to mobilizing to the site to conduct the field investigation, Schnabel Engineering contacted North Carolina One Call to locate underground utilities in the Study Area of the site.

Schnabel mobilized a geophysical crew to the site on January 29, 2014 and performed an electromagnetic survey (EM) of the subsurface in the proposed ROW area within the parcel. The Schnabel geophysical crew returned to the Study Area on February 10, 2014 to perform ground penetrating radar (GPR) survey with a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

After reviewing the background information and geophysical data, Schnabel returned to Parcel 018 on February 19, 2014 to conduct field screening of soils from within the Study Area. Four soil borings designated B-18-01 through B-18-04 were advanced by SAEDACCO of Fort Mill, SC along Rowan Street on February 19, 2014. The location of the soil borings are shown on Figure 3. The borings were advanced to a total depth of 10 to 12 feet below ground surface (bgs). Because groundwater samples collected during the February investigation indicated the presence of tetrachloroethene and trichloroethene at elevated levels, on May 15, 2014, Schnabel personnel returned again to collect soil

samples to investigate whether tetrachloroethene and trichloroethene were present in the site soil. A total of twelve additional borings were advanced on the Parcel 018 (B-18-1A, B-18-2A, B-18-3A, B-18-4A, and B-18-05 through B-18-12).

The borings drilled within the Study Area were advanced utilizing a track-mounted Geoprobe® (Model 7822-DT) with direct push probe technology. Soils for field screening were obtained from the borings using a MacroCore® sampler fitted with a new, single-use, five foot long disposable polyvinyl chloride (PVC) liner. A portion of each 2-foot interval was placed in a separate re-sealable plastic bag. These bags were sealed and placed at ambient temperature for field screening with a MiniRAE Plus photo ionization detector (PID). Volatiles were allowed to accumulate in the headspace of each bag for approximately 15 minutes, and then the headspace of each sealed bag was scanned with the PID. Headspace screening of the soil samples indicated a concentration that ranged from 0 to 0.3 ppm at each boring location at intervals of two, four, six, eight, ten, and twelve feet bgs (Table 1, Sampling Intervals and Field Volatile Measurements). The PID was calibrated on February 19 and May 15, 2014 in general accordance with the manufacturer's recommended calibration procedures. The PID readings were recorded with the soil descriptions and indications of staining or odors, if present. Logs for each boring are presented in Appendix C. Ultra Violet Fluorescence (UVF) was not performed at this parcel because very low PID readings were observed. Sample information was recorded on the Chain-of-Custody form and the samples were submitted for chemical analysis of diesel range organics (DRO) and gasoline range organics (GRO) by 8015, volatile organic compounds (VOCs) by EPA 8260B, semi-volatile organic compounds (SVOCs) by EPA 8270, MADEP EPH, MADEP VPH, and total metals (Cr and Pb) by 6010 with 3050B prep. At the completion of the sampling activities, the borings were backfilled with soil removed from the boring during sampling and/or bentonite chips.

Soils collected from borings within the Study Area generally consisted of orangish brown Silty Sand with Clay (SM) or gray Clayey Sand (SC). GPS coordinates for each boring were obtained using a Trimble Pro-XRS DGPS system (Appendix D) with coordinates reported in US State Plane 1983 system, North Carolina 3200 zone, using the NAD 83 datum, with units in US survey feet.

A groundwater sample and duplicate were collected at B-18-01 using a peristaltic GeoPump 2 with a Teflon™-lined polyethylene tube on February 19, 2014. A groundwater sample was collected from this boring because it was advanced in a planned cut area for a proposed drainage easement. The water samples were placed in laboratory-supplied containers and stored on ice pending shipment to Pace Analytical in Hampstead, NC. Sample information was recorded on the Chain-of-Custody form and the samples were submitted for chemical analysis of chromium and lead by EPA Method 6010, EPA Method 625 with top 10 tentatively identified compounds (TICS), MADEP EPH and VPH, EPA Method 6200B, formaldehyde, and Method 8260.

#### **4.0 GROUNDWATER MONITORING WELLS OR REMEDIATION WELLS**

Groundwater monitoring wells and remediation wells were not observed within the proposed ROW or easement on this parcel.

#### **5.0 DISCUSSION OF RESULTS**

The geophysical survey conducted at the site did not indicate the presence of probable USTs on Parcel 018. The geophysical survey did indicate various magnetic anomalies and the presence of buried utility lines and conduits.

Chromium, tetrachloroethene, and trichloroethene were detected at concentrations that exceed the NC 2L Groundwater Quality Standards in B-18-01 and its duplicate (Duplicate-2). The results of the duplicate groundwater sample were similar to those of the parent sample, except tetrachloroethene was also detected as a TIC at a concentration of 5.1 ug/L which exceeds the NC 2L Groundwater Standards. Other constituents analyzed by the laboratory did not exceed regulatory levels. The Summary of Groundwater Laboratory Results is shown in Table 2. The laboratory report for the groundwater samples is presented in Appendix E.

Results of the May 15, 2014 soil investigation showed that tetrachloroethene was detected in B-18-08 (1-2 feet) slightly greater than the Soil to Groundwater maximum soil contaminant concentration (MSCC) and TPH-DRO was detected in B-18-10 (1-2 feet) above the TPH-DRO Action Level. Chromium was detected in B-18-03A (1-2 and 4-5 feet), B-18-04A (1-3 and 5-7 feet), B-18-05 (1-2 and 4-5 feet), B-18-06 (1-2 feet), B-18-08 (1-2 and 4-5 feet), B-19-08 (1-2 and 4-5 feet), B-18-10 (4-5 feet), B-18-11 (5-7 feet), and B-18-12 (1-3 and 5-7 feet) greater than the Soil to Groundwater MSCC. Chromium and lead were detected in all the soil samples indicating they are naturally occurring constituents in the site soil. The results of the duplicate soil sample were similar to those of the parent sample. Soil laboratory analytical results are summarized in Table 2A. The laboratory report for the soil samples is presented in Appendix F.

## **6.0 CONCLUSIONS**

Anomalies were not observed in the EM or the GPR geophysical data at the subject property that is interpreted to be metallic USTs within about 6 feet of the ground surface.

Four soil borings on February 19, 2014 and 12 soil borings on May 15, 2014 were advanced to document soil conditions and to evaluate potential impact within the Study Area.

Tetrachloroethene and trichloroethene were detected in the groundwater sample from B-18-01 at 28.9 ug/L and 8.8 ug/L, respectively. Both of these constituents exceeded their NC 2L Groundwater Quality Standard.

Chromium was also detected in the groundwater at B-18-01 at 10.4 ug/L. This concentration exceeds the NC 2L Groundwater Quality Standard.

Tetrachloroethene was detected in the soil sample from B-18-08 (1-2 feet) at a concentration of 0.0075 mg/Kg, slightly above the 0.0074 mg/Kg Soil to Groundwater MSCC. Tetrachloroethene was detected below the Soil to Groundwater MSCC in B-18-08 (4-5 feet) detected. None of the soil samples exceeded the commercial/industrial MSCC.

TPH-DRO was detected in the soil sample from B-18-10 (1-2 feet) at a concentration of 16.4 mg/Kg, which is above the NCDENR TPH-DRO action level of 10 mg/Kg. TPH-DRO was detected in B-18-05 (1-2 feet), B-18-06 (1-2 feet), B-18-07 (1-2 feet), and B-18-08 (1-2 feet) below the action level. TPH-DRO was not detected in the deeper soil samples and MADEP EPH, TPH-GRO, and MADEP VPH were all non-detect in all of the shallow and deep soil samples.

Chromium was detected in all the soil samples between 1.0 and 14.0 mg/Kg. Several of the results exceeded the Soil to Groundwater MSCCs. None of the soil samples exceeded the commercial/industrial MSCC. Geochemical background levels of chromium in the Eastern United States show that the mean

range of chromium in soil is 33 mg/Kg and the range is 1 to 1,000 mg/Kg, suggesting that the concentration of chromium encountered on Parcel 018 may be naturally occurring and at background levels (Element Concentrations in Soils and Other Surficial Material of the Conterminous United States, Hansford Shacklette and Josephine Boerngen, US Geological Survey Professional Paper 1270, 1984).

## **7.0 RECOMMENDATIONS**

Groundwater impacted with tetrachloroethene, trichloroethene and chromium were detected above the NC 2L standard at B-18-01. The groundwater was not sampled at any other location on site. Based on the regional topography and the likely groundwater flow direction, the groundwater in other portions of the site is also likely impacted. The likely groundwater flow direction and site soil analysis does not suggest that the site is the source of the tetrachloroethene or trichloroethene, although very low levels of tetrachloroethene were detected in B-18-08 topographically downgradient of B-18-01. The detection of chromium in all the soil samples suggests that the chromium detected in the groundwater sample at B-18-01 is most likely naturally occurring chromium detected as suspended soil within the groundwater sample. It is recommended that if groundwater is encountered during excavation on this parcel that dermal contact, inhalation and ingestion of VOCs by site workers be avoided and that any recovered groundwater be treated and disposed of properly.

Tetrachloroethene was detected in the site soil at B-18-08 (1-2 feet) and chromium was detected in several soil samples slightly greater than the Soil to Groundwater MSCC suggesting a possibility that leaching of this soil could result in impact to groundwater above the 2L standard. Care should be taken to prevent leaching of the site soil during excavation of this area. Detected tetrachloroethene and chromium concentrations are significantly below the commercial/industrial MSCC, suggesting a low likelihood of dermal, inhalation or ingestion exposure risk to site workers.

TPH-DRO was detected in the site soil at B-18-10 (1-2 feet) greater than the NCDENR Action Level. MADEP EPH was non-detect for all constituents at this location and at all other locations on site, suggesting that the TPH-DRO that is present is highly degraded and therefore presents a low likelihood of dermal, inhalation or ingestion exposure risk to site workers.

## **8.0 LIMITATIONS**

This PSA was prepared for the use of the NCDOT. The scope of work performed at the site is limited to the tasks described in our cost proposal dated January 23, 2014. This report is not intended to represent an exhaustive research of all potential hazards that may exist. Schnabel makes no other declarations, or any express or implied warranty, as to the professional services provided under the terms of the agreement.

# TABLES

- Table 1, Sampling Intervals and Field Volatile Measurements
- Table 2, February 19, 2014, Summary of Groundwater Laboratory Results
- Table 2A, May 15, 2014, Summary of Soil Laboratory Results



**TABLE 1  
 FEBRUARY, 2014 SAMPLING INTERVALS AND FIELD VOLATILE MEASUREMENTS  
 PARCEL 018  
 NCDOT B-4490, CUMBERLAND COUNTY**

Depth Below Ground Surface	Soil Borings			
	B-18-01	B-18-02	B-18-03	B-18-04
0 - 2 feet	0.0	0.0	0.0	0.0
2 - 4 feet	0.0	0.0	0.0	0.0
4 - 6 feet	0.0	0.0	0.0	0.3
6 - 8 feet	0.0	0.0	0.0	0.0
8 - 10 feet	0.0	0.0	0.0	0.0
10 - 12 feet	0.0**	NS	NS	NS

Notes:

Shaded cells were submitted for laboratory analysis

NS: Not Screened

\*\* : Water Sample Taken

Field volatile measurements obtained with a MiniRae Photo Ionization Detector

Measurements in parts per million (ppm)

**MAY, 2014 SAMPLING INTERVALS AND FIELD VOLATILE MEASUREMENTS**

Depth Below Ground Surface	Soil Borings											
	B-18-01A	B-18-02A	B-18-03A	B-18-04A	B-18-05	B-18-06	B-18-07	B-18-08	B-18-09	B-18-10	B-18-11	B-18-12
0 - 2 feet	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.4	0.0	0.0	0.0	0.0
2 - 4 feet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
4 - 6 feet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 - 7 feet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

Field volatile measurements obtained with a MiniRae Photo Ionization Detector

Measurements in parts per million (ppm)

Table 2A  
 May 15, 2014 Summary of Soil Laboratory Results  
 Parcel 018  
 NCDOT B-4490, Cumberland County

Sample ID: Matrix: Sampled Date:	TPH-GRO and DRO Action Level	Soil to Groundwater MSCC	Commercial/ Industrial MSCC	B-18-01A (1-3 ft)	B-18-01A (5-7 ft)	B-18-02A (1-2 ft)	B-18-02A (4-5 ft)	B-18-03A (1-2 ft)	B-18-03A (4-5 ft)	B-18-04A (1-3 ft)	B-18-04A (5-7 ft)	B-18-05 (1-2 ft)	B-18-05 (4-5 ft)
				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014
<b>TPH DRO EPA 8015/3546 prep</b>													
Diesel Range Organics	10	NA	NA	NS	ND	NS	ND	NS	ND	ND	NS	6.3	NS
<b>MADEP EPH</b>													
Aliphatic (C09-C18)	NA	540	40,000	ND	ND	NS	ND	NS	ND	ND	NS	ND	NS
Aliphatic (C19-C36)	NA	NA	810,000	ND	ND	NS	ND	NS	ND	ND	NS	ND	NS
Aromatic (C11-C22)	NA	31	12,264	ND	ND	NS	ND	NS	ND	ND	NS	ND	NS
<b>TPH GRO EPA 8015/5035/5030B prep</b>													
Gasoline Range Organics	10	NA	NA	NS	ND	NS	ND	NS	ND	ND	NS	ND	NS
<b>MADEP VPH</b>													
Aliphatic (C05-C08)	NA	68	24,528	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aliphatic (C09-C12)	NA	540	40,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic (C09-C10)	NA	31	12,264	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals 6010/3050 prep</b>													
Chromium	NA	5.4	1,226	1.0	1.2	4.3	3.0	<b>11.1</b>	<b>11.4</b>	<b>8.5</b>	<b>7.1</b>	<b>9.6</b>	<b>13.7</b>
Lead	NA	270	400	1.2	1.6	28.8	10.4	11.7	5.5	19.7	28.3	7.5	8.5
<b>SVOCs Method 8270/3546 prep</b>													
Various	NA	Various	Various	NS	ND	NS	ND	NS	ND	ND	NS	ND	NS
<b>VOCs Method 8260/5035A</b>													
cis-1,2-Dichloroethene	NA	0.35	4,000	ND	ND	ND	ND	ND	ND	ND	0.0065	ND	ND
Tetrachloroethene	NA	0.0074	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:  
 Units in mg/Kg  
 ND: Not Detected  
 NS: Not sampled  
 NA: Not Applicable  
 MADEP: Massachusetts Department of Environmental Protection  
 Action Level and Maximum Soil Concentration Levels (MSCC)  
 from Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement  
 for UST Releases, March 1, 2007 Version Change 5, Effective December 1, 2013  
 Bold exceeds the standard

Table 2A  
 May 15, 2014 Summary of Soil Laboratory Results  
 Parcel 018  
 NCDOT B-4490, Cumberland County

Sample ID: Matrix: Sampled Date:	TPH-GRO and DRO Action Level	Soil to Groundwater MSCC	Commercial/ Industrial MSCC	B-18-06 (1-2 ft)	B-18-06 (4-5 ft)	B-18-07 (1-2 ft)	B-18-07 (4-5 ft)	B-18-08 (1-2 ft)	Dup-1	B-18-08 (4-5 ft)	B-18-09 (1-2 ft)	B-18-09 (4-5 ft)	B-18-10 (1-2 ft)
				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
				5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014		
<b>TPH DRO EPA 8015/3546 prep</b>													
Diesel Range Organics	10	NA	NA	5.8	NS	6.7	NS	5.7	6.5	NS	ND	NS	16.4
<b>MADEP EPH</b>													
Aliphatic (C09-C18)	NA	540	40,000	ND	NS	ND	NS	ND	ND	NS	ND	NS	ND
Aliphatic (C19-C36)	NA	NA	810,000	ND	NS	ND	NS	ND	ND	NS	ND	NS	ND
Aromatic (C11-C22)	NA	31	12,264	ND	NS	ND	NS	ND	ND	NS	ND	NS	ND
<b>TPH GRO EPA 8015/5035/5030B prep</b>													
Gasoline Range Organics	10	NA	NA	ND	NS	ND	NS	ND	ND	NS	ND	NS	ND
<b>MADEP VPH</b>													
Aliphatic (C05-C08)	NA	68	24,528	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aliphatic (C09-C12)	NA	540	40,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic (C09-C10)	NA	31	12,264	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals 6010/3050 prep</b>													
Chromium	NA	5.4	1,226	<b>6.2</b>	4.6	4.4	3.1	<b>10.0</b>	5.1	<b>6.7</b>	<b>5.4</b>	<b>6.5</b>	4.1
Lead	NA	270	400	54.2	17.9	27.6	20.8	7.3	39.1	8.5	10.8	18.0	170
<b>SVOCs Method 8270/3546 prep</b>													
Various	NA	Various	Various	ND	NS	ND	NS	ND	ND	NS	ND	NS	ND
<b>VOCs Method 8260/5035A</b>													
cis-1,2-Dichloroethene	NA	0.35	4,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	NA	0.0074	10	ND	ND	ND	ND	<b>0.0075</b>	<b>0.0076</b>	0.0069	ND	ND	ND

Notes:  
 Units in mg/Kg  
 ND: Not Detected  
 NS: Not sampled  
 NA: Not Applicable  
 MADEP: Massachusetts Department of Environmental Protection  
 Action Level and Maximum Soil Concentration Levels (MSCC)  
 from Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement  
 for UST Releases, March 1, 2007 Version Change 5, Effective December 1, 2013  
 Bold exceeds the standard

Table 2A  
 May 15, 2014 Summary of Soil Laboratory Results  
 Parcel 018  
 NCDOT B-4490, Cumberland County

Sample ID: Matrix: Sampled Date:	TPH-GRO and DRO Action Level	Soil to Groundwater MSCC	Commercial/ Industrial MSCC	B-18-10 (4-5 ft)	B-18-11 (1-3 ft)	B-18-11 (5-7 ft)	B-18-12 (1-3 ft)	B-18-12 (5-7 ft)
				Soil	Soil	Soil	Soil	Soil
				5/15/2014	5/15/2014	5/15/2014	5/15/2014	5/15/2014
<b>TPH DRO EPA 8015/3546 prep</b>								
Diesel Range Organics	10	NA	NA	NS	NS	ND	NS	ND
<b>MADEP EPH</b>								
Aliphatic (C09-C18)	NA	540	40,000	NS	NS	ND	NS	ND
Aliphatic (C19-C36)	NA	NA	810,000	NS	NS	ND	NS	ND
Aromatic (C11-C22)	NA	31	12,264	NS	NS	ND	NS	ND
<b>TPH GRO EPA 8015/5035/5030B prep</b>								
Gasoline Range Organics	10	NA	NA	NS	NS	ND	NS	ND
<b>MADEP VPH</b>								
Aliphatic (C05-C08)	NA	68	24,528	ND	ND	ND	ND	ND
Aliphatic (C09-C12)	NA	540	40,000	ND	ND	ND	ND	ND
Aromatic (C09-C10)	NA	31	12,264	ND	ND	ND	ND	ND
<b>Metals 6010/3050 prep</b>								
Chromium	NA	5.4	1,226	<b>5.7</b>	4.9	<b>14.0</b>	<b>8.0</b>	<b>6.2</b>
Lead	NA	270	400	23.1	5.5	7.6	5.8	5.6
<b>SVOCs Method 8270/3546 prep</b>								
Various	NA	Various	Various	NS	NS	ND	NS	ND
<b>VOCs Method 8260/5035A</b>								
cis-1,2-Dichloroethene	NA	0.35	4,000	ND	ND	ND	ND	ND
Tetrachloroethene	NA	0.0074	10	ND	ND	ND	ND	ND

Notes:  
 Units in mg/Kg  
 ND: Not Detected  
 NS: Not sampled  
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 from Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement  
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 Bold exceeds the standard

**TABLE 2**  
**FEBRUARY 19, 2014 SUMMARY OF GROUNDWATER RESULTS**  
**PARCEL 018**  
**NCDOT B-4490, CUMBERLAND COUNTY**

Sample ID:	NC 2L Standards	B-18-01	Duplicate-2
Matrix:		Water	Water
Sampled Date:		2/19/2014	2/19/2014
<b>8015M Glycols</b>			
Ethylene Glycol	10,000	ND	ND
<b>MADEP Extractable Petroleum Hydrocarbons (EPH)</b>			
Various	Various	ND	ND
<b>MADEP Volatile Petroleum Hydrocarbons (VPH)</b>			
Various	Various	ND	ND
<b>Metals 6010</b>			
Chromium	10	<b>10.4</b>	ND
Lead	15	ND	ND
<b>EPA Method 625 Semi-volatile Organic Compounds (SVOCs)</b>			
Unknown (TIC)	NA	113	ND
Unknown (TIC)	NA	168	ND
Tetrachloroethylene (TIC)	0.7	ND	<b>5.1</b>
<b>Method 6200B Volatile Organic Compounds (VOCs)</b>			
cis-1,2-Dichloroethene	70	8.7	8.9
Methyl-tert-butyl ether	20	1.3	1.4
Tetrachloroethene	0.7	<b>28.9</b>	<b>28.1</b>
Trichloroethene	3	<b>8.8</b>	<b>8.6</b>
<b>Method 8260 Low Level VOCs</b>			
cis-1,2-Dichloroethene	70	7.4	7.2
Methyl-tert-butyl ether	20	1.1	1.1
Tetrachloroethene	0.7	<b>30.1</b>	<b>29.5</b>
Trichloroethene	3	<b>9.0</b>	<b>8.7</b>
<b>Carbonyl Compounds Method SW8315A</b>			
Formaldehyde	600	180	220

Notes:

Units in ug/L

ND: Not Detected

NA: Not Applicable

TIC: Tentatively Identified Compounds

MADEP: Massachusetts Department of Environmental Protection

Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina,

NCAC Title 15A Subchapter 2L, Amended April 1, 2013

Bold exceeds the standard

# FIGURES

Figure 1, Vicinity Map

Figure 2, Site Map

Figure 3 and 3A, Boring Locations and Legend



 **PSA Properties**

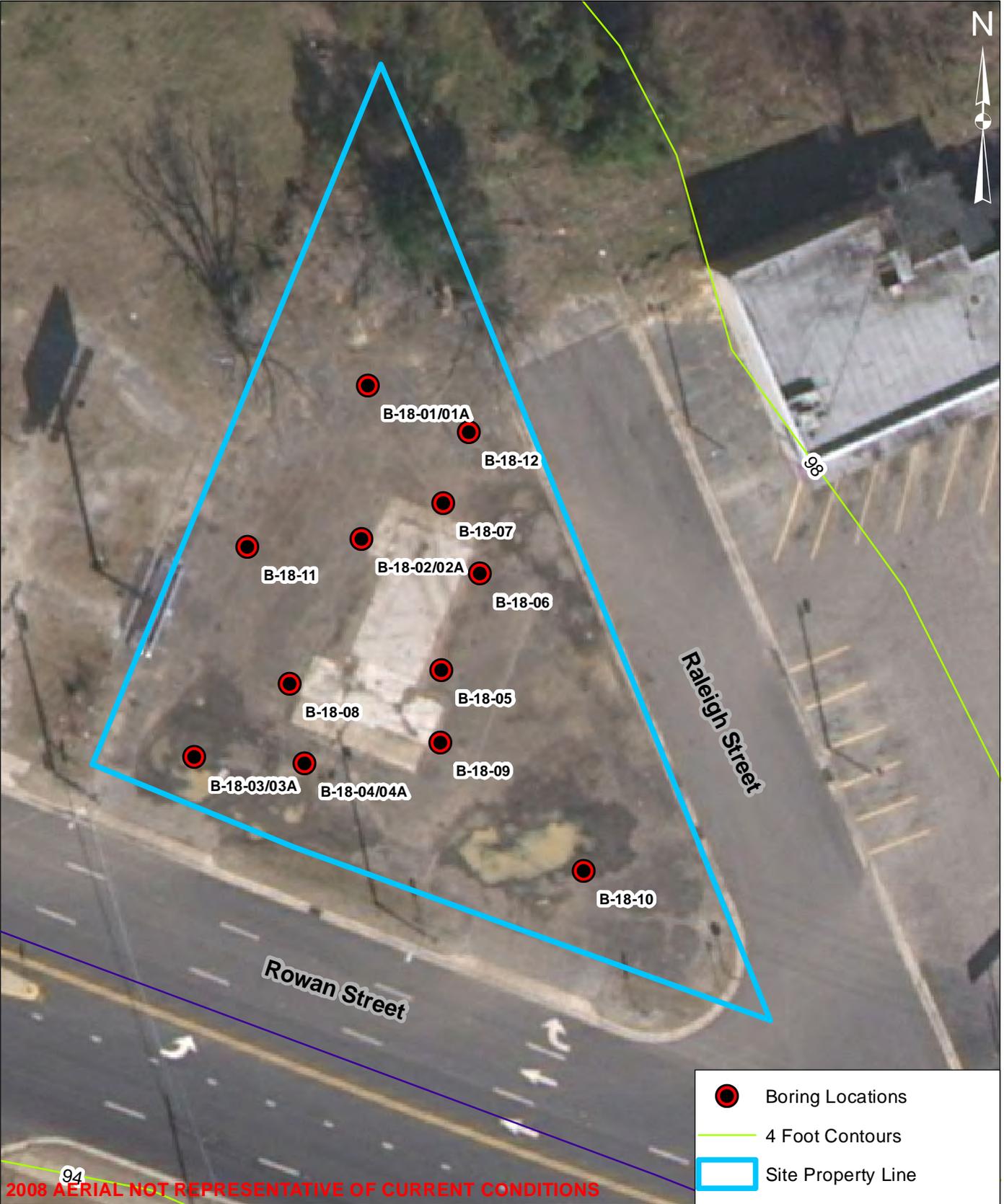
Source: 1. Cumberland County, NC, GIS Department  
[http://www.co.cumberland.nc.us/is\\_technology/gis.asp](http://www.co.cumberland.nc.us/is_technology/gis.asp)  
 Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet



**SITE PROJECT B-4490, PSA PARCELS  
 CUMBERLAND COUNTY, NORTH CAROLINA  
 NC DEPARTMENT OF TRANSPORTATION  
 PROJECT NO. 11821014.33**

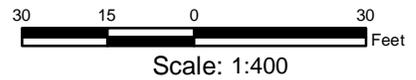
VICINITY MAP

FIGURE 1



	Boring Locations
	4 Foot Contours
	Site Property Line

Source: 1. Cumberland County, NC, GIS Department  
[http://www.co.cumberland.nc.us/is\\_technology/gis.aspx](http://www.co.cumberland.nc.us/is_technology/gis.aspx)  
 Projection: NAD 1983 StatePlane North Carolina FIPS 3200 Feet

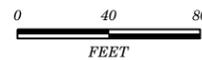


SITE PROJECT B-4490, PARCEL 018  
 CUMBERLAND COUNTY, NORTH CAROLINA  
 NC DEPARTMENT OF TRANSPORTATION  
 PROJECT NO. 11821014.33

BORING LOCATIONS  
 PARCEL 018

FIGURE 2





NC Department of Transportation  
Geotechnical Engineering Unit  
State Project No. B-4490  
Cumberland County, North Carolina

BORING LOCATIONS  
Parcel 018  
Figure 3

04/16/11

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-----
Proposed Wetland Boundary	-----
Existing Endangered Animal Boundary	-----
Existing Endangered Plant Boundary	-----
Known Soil Contamination: Boundary or Site	☠
Potential Soil Contamination: Boundary or Site	?

### BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	♀
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	†
Building	□
School	□
Church	□
Dam	-----

### HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-----
Buffer Zone 1	-----
Buffer Zone 2	-----
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

### RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

### RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

### ROADS AND RELATED FEATURES:

Proposed Permanent Easement with Iron Pin and Cap Marker	◆
Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	○ CR
Curb Cut Future Ramp	○ CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

### VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

### EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○ S
Storm Sewer	-----

### UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○ P
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	-----
H-Frame Pole	-----
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

### TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	○ T
Telephone Booth	□
Telephone Pedestal	□
Telephone Cell Tower	⊗
U/G Telephone Cable Hand Hole	-----
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

### WATER:

Water Manhole	○ W
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

### TV:

TV Satellite Dish	⊗
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	-----
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

### GAS:

Gas Valve	◇
Gas Meter	○
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

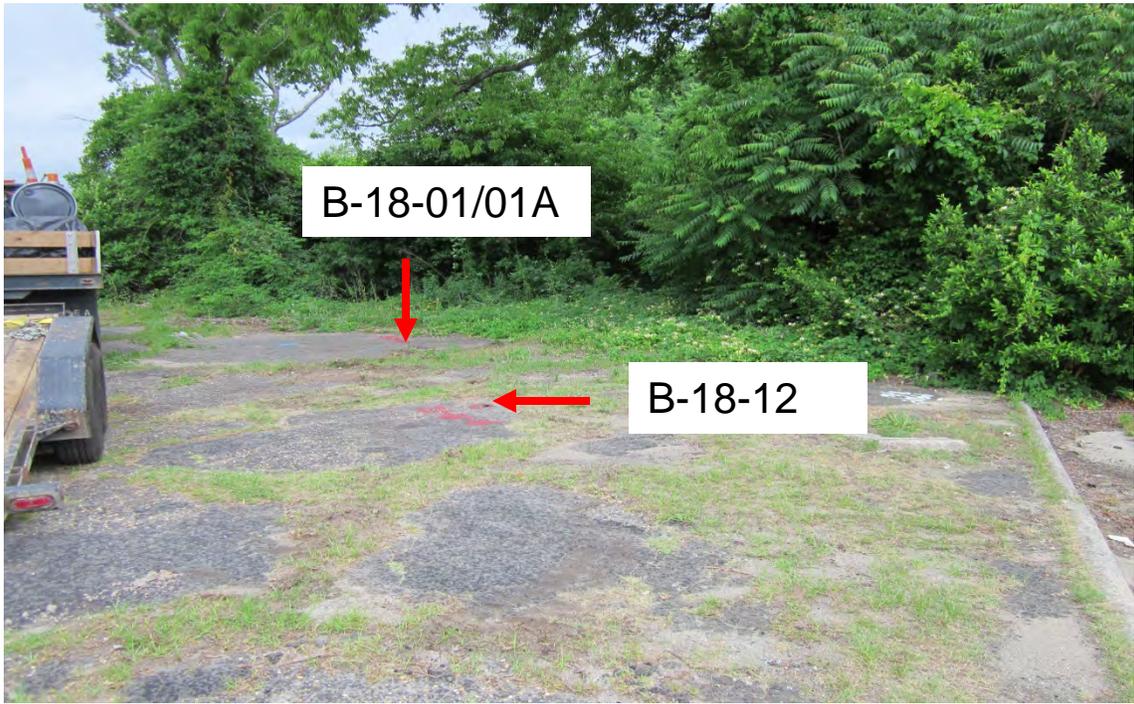
### SANITARY SEWER:

Sanitary Sewer Manhole	○ SS
Sanitary Sewer Cleanout	○ SC
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

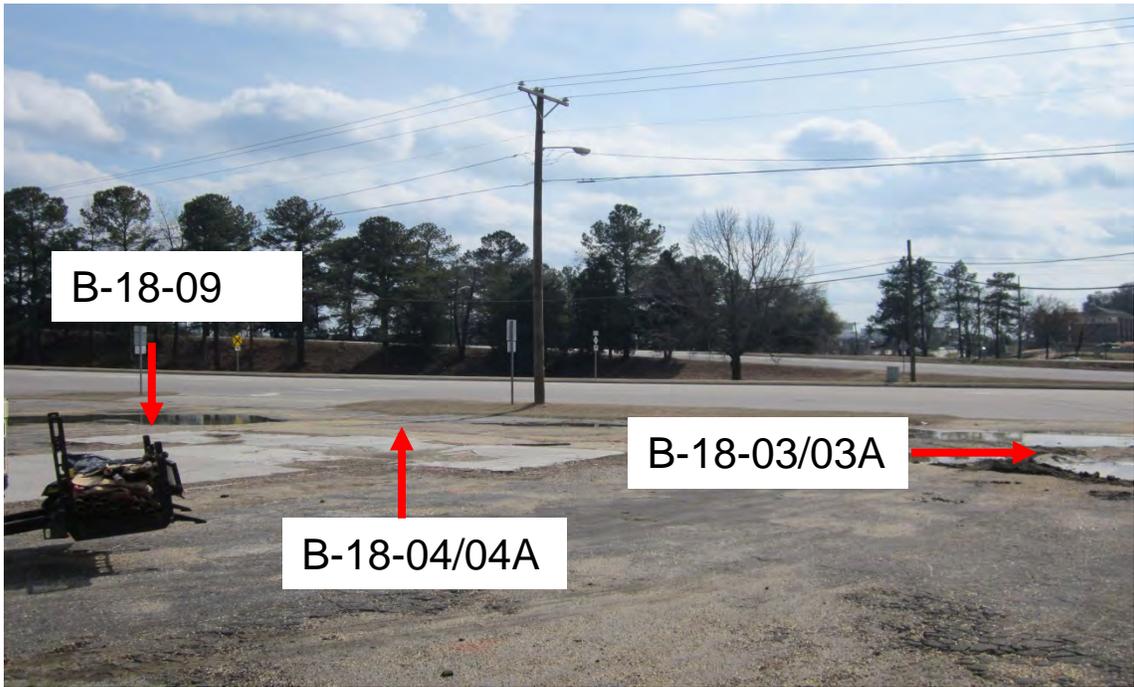
### MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	⊗
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊗
U/G Test Hole (S.U.E.*)	⊗
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

**APPENDIX A**  
**PHOTOGRAPHS**



Parcel 018, facing north toward B-18-01/01A and 12



Parcel 018, facing southeast toward B-18-03/03A, 04/4A, and 09

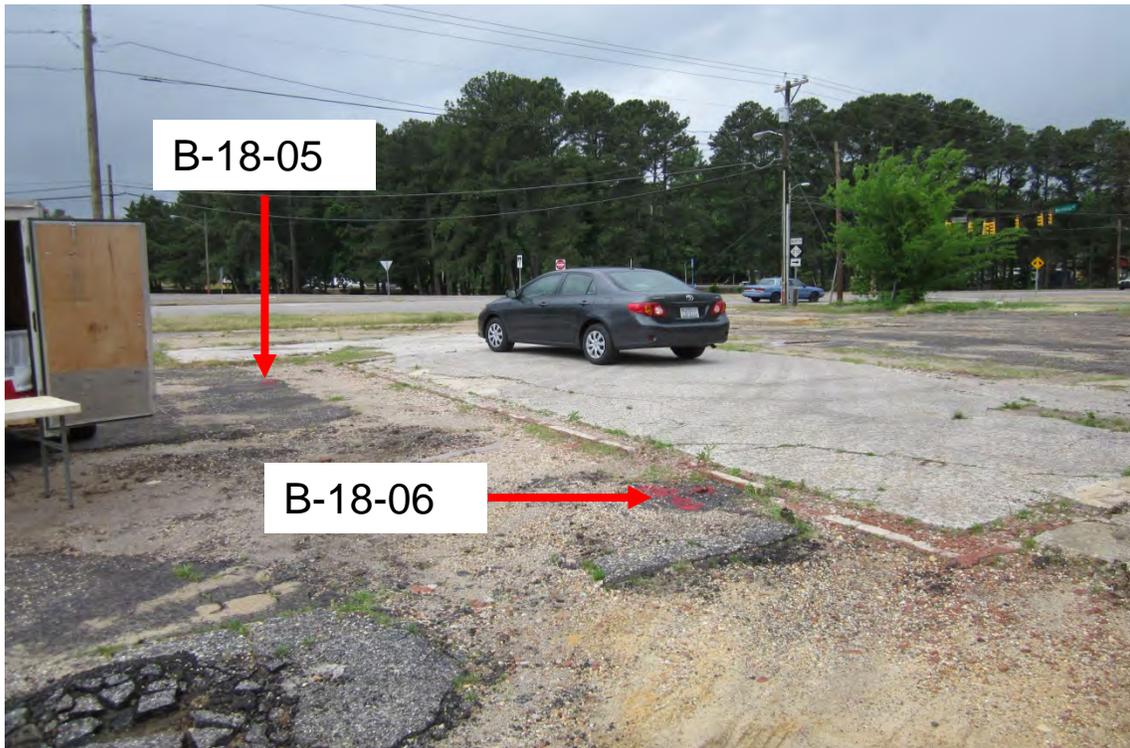


STATE PROJECT B-4490  
 CUMBERLAND CO.  
 NORTH CAROLINA  
 NC DEPT. OF TRANSPORTATION  
 PROJECT NO. 11821014.33

SOIL BORINGS  
 PARCEL 018



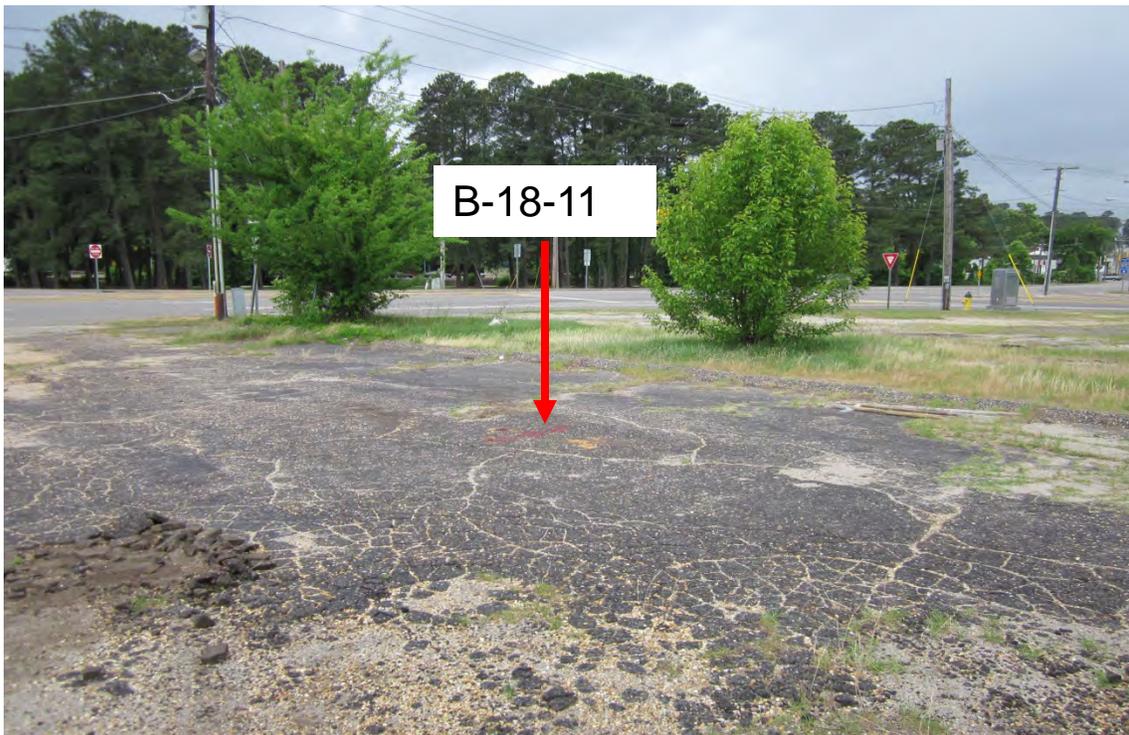
Parcel 018, east toward B-1802/02A



Parcel 018, facing southwest toward B-18-05 and 06



Parcel 018, facing southeast toward B-18-08



Parcel 018, facing southwest toward B-18-11



STATE PROJECT B-4490  
CUMBERLAND CO.  
NORTH CAROLINA  
NC DEPT. OF TRANSPORTATION  
PROJECT NO. 11821014.33

SOIL BORINGS  
PARCEL 018



Parcel 018, facing east toward B-18-10



Parcel 018, facing east toward B-18-07

**APPENDIX B**  
**GEOPHYSICS REPORT**





March 27, 2014

Mr. Mohammed A. Mulla, P.E., CPM, MCE  
NCDOT, Geotechnical Engineering Unit  
1020 Birch Ridge Drive  
Raleigh, NC 27610

RE:           State Project:   B-4490  
              WBS Element:  33727.1.1  
              County:       Cumberland  
              Description:  Replace Bridge No. 116 over CSX Railroad, North South Railroad, and  
                                  Hillsboro Street on NC 24-210

**Subject:       Project 11821014.33, Report on Geophysical Surveys  
                  Parcel 018, P&S Enterprises Property, Fayetteville, North Carolina**

Dear Mr. Mulla:

**SCHNABEL ENGINEERING SOUTH, PC** (Schnabel) is pleased to present this report on the geophysical surveys we performed on the subject property. The report includes two 11x17 inch color figures and two 8.5x11 inch color figures. This study was performed in accordance with our proposal for Geophysical Surveys to Locate Possible USTs dated December 26, 2013, as approved by Terry Farr on January 24, 2014, and our existing agreement dated June 2, 2011. Gordon Box provided a verbal notice to proceed on January 23, 2014.

## **INTRODUCTION**

The field work described in this report was performed on January 28, 2014 and February 6, 2014. The purpose of the geophysical surveys was to evaluate the potential presence of metal underground storage tanks (USTs) in the accessible areas of Parcel 018. Photographs of the property are included on Figure 1. The property is located in the northwest quadrant of the intersection of Rowan Street and Raleigh Street in Fayetteville, NC.

The geophysical surveys consisted of an electromagnetic (EM) induction survey and a ground penetrating radar (GPR) survey. The EM survey was performed using a Geonics EM61-MK2 (EM61) instrument. The EM61 is a time domain metal detector that stores data digitally for later processing and review. Sensitivity to metallic objects is dependent on the size, depth, and orientation of the buried object and the amount of noise (i.e. response from spurious metallic objects) in the area. The EM61 can generally observe a single

buried 55 gallon drum at a depth of 10 feet or less. The EM61 makes measurements by creating an electromagnetic pulse and then measuring the response from metallic objects over time after the pulse is generated. We measured and recorded the response at several time increments after the pulse to help evaluate relative size and depth of metallic objects in the subsurface.

The GPR survey was performed over selected EM61 anomalies using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna to further investigate and evaluate EM responses that could indicate a potential UST. The depth penetration of the GPR signal, when using a 400 MHz antenna, is normally limited to 6 feet or less.

Photographs of the equipment used are shown on Figure 2.

## **FIELD METHODOLOGY**

We obtained locations of geophysical data points using a sub-meter Trimble Pro-XRS differential global positioning system (DGPS). References to direction and location in this report are based on the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 83 datum, with units in US survey feet. We also recorded the locations of existing site features (utilities, signs, etc.) with the DGPS for later correlation with the geophysical data and a site plan provided by the NCDOT. The Microstation data provided by the NCDOT appears to be offset from the DGPS data we collected. The amount (approximately 5 feet) and direction (WNN) of offset of the Microstation data appear to be consistent for all parcels where we collected data for this project.

The EM61 data were collected along parallel survey lines spaced approximately 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced approximately one to two feet apart in orthogonal directions over anomalous EM readings not attributed to cultural features. The GPR data were reviewed in the field to evaluate the possible presence of USTs. The GPR data also were recorded digitally and later transferred to a desktop computer for further review.

## **DISCUSSION OF RESULTS**

The contoured EM61 data collected over Parcel 018 and the GPR survey area locations are shown on Figure 3, EM61 Early Time Gate Response, and Figure 4, EM61 Differential Response. Areas outside the colored, contoured EM61 data were not surveyed. Early time data refer to the response measured at a short time after the initial EM pulse is generated. Early time data typically contain responses from all metal objects, small or large and shallow or deep, within the sensitivity range of the instrument. Differential data represent the difference in response between the top and bottom coils of the EM61 instrument at a later time after the initial pulse than early time data. Differential data naturally tend to filter out the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as USTs.

We were not able to access an area in the northern portion of the planned survey area due to the presence of thick vegetation. The EM data contain multiple anomalies that we investigated with GPR (as shown on Figures 3 and 4), all of which appear to be the result of buried utilities, reinforced concrete, or

other metal objects at the ground surface or at shallow depths. The geophysical data collected at the site do not indicate the presence of metallic USTs within the areas surveyed.

## **CONCLUSIONS**

As shown in Figures 3 and 4, the EM data we collected over Parcel 018 did not cover a portion of the planned survey area due to the presence of thick vegetation. The EM data include responses from several visible metallic objects at grade (e.g. signs, guy wires, etc.). We did not observe anomalies in the EM or the GPR geophysical data at the subject property that we interpret to be the results of metallic USTs within about 6 feet of the ground surface.

## **LIMITATIONS**

These services have been performed and this report prepared for the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

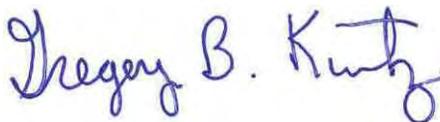
We appreciate the opportunity to have provided these services. Please call if you need additional information or have any questions.

Sincerely,

### **SCHNABEL ENGINEERING SOUTH, PC**



James W. Whitt, LG  
Senior Staff Geophysicist



Gregory B. Kuntz, LG  
Senior Associate

JWW:JCD:GBK

Attachments: Figures (4)

CC: NCDOT, Gordon Box

FILE: G:\2011-SDE-JOBS\11821014\_00\_NCDOT\_2011\_GEOTECHNICAL\_UNIT\_SERVICES\11821014\_33\_B-4490\_CUMBERLAND\_COUNTY\REPORT\GEOPHYSICS\PARCEL 18\SCHNABEL  
GEOPHYSICAL REPORT ON PARCEL 18 (B-4490) FINAL.DOCX

#### **Attachments:**

- Figure 1 - Parcel 018 Site Photos
- Figure 2 - Photos of Geophysical Equipment Used
- Figure 3 - EM61 Early Time Gate Response
- Figure 4 - EM61 Differential Response



Parcel 018 (P&S Enterprises Property), looking northwest



Parcel 018 (P&S Enterprises Property), looking northeast



STATE PROJECT B-4490  
NC DEPT. OF TRANSPORTATION  
CUMBERLAND CO., NORTH CAROLINA  
PROJECT NO. 11821014.33

PARCEL 018  
SITE PHOTOS

FIGURE 1



Geonics EM61-MK2 Metal Detector with Trimble DGPS Unit



GSSI SIR-3000 Ground-Penetrating Radar with 400 MHz Antenna

Note: Stock photographs – not taken on site.

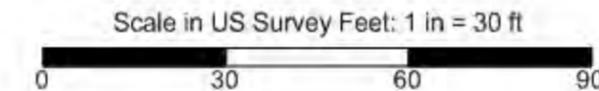
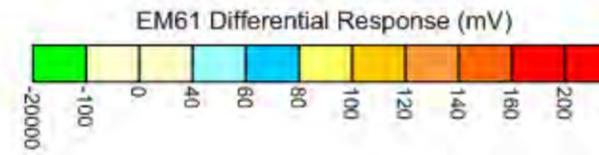
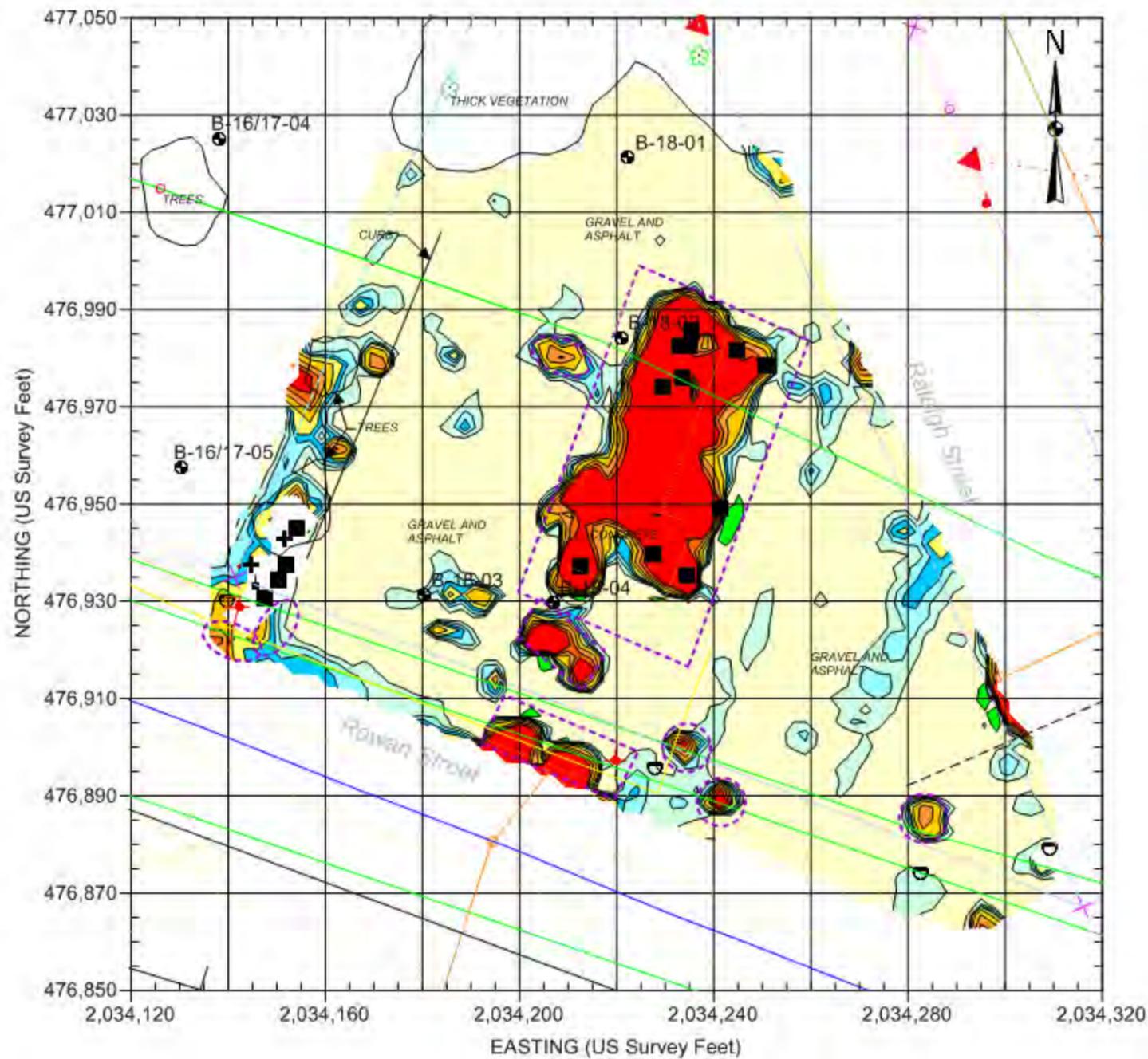


STATE PROJECT B-4490  
NC DEPT. OF TRANSPORTATION  
CUMBERLAND CO., NORTH CAROLINA  
PROJECT NO. 11821014.33

PHOTOS OF  
GEOPHYSICAL  
EQUIPMENT USED

FIGURE 2

PARCEL 018



EXPLANATION	
	SIGN
	MISCELLANEOUS METALLIC OBJECT
	UTILITY POLE
	GUY WIRE
	EDGE OF NCDOT PROPOSED R/W
	PROPERTY LINE
	GPR SURVEY AREA
	BORING LOCATION

BASE PLAN FROM NCDOT FILE:  
B-4490\_rdy\_psh\_07.dgn  
(FOR SOME SITE FEATURES)

Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as drums and tanks. The EM data were collected on January 28, 2014, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on February 6, 2014, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

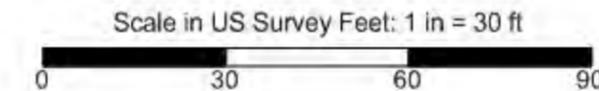
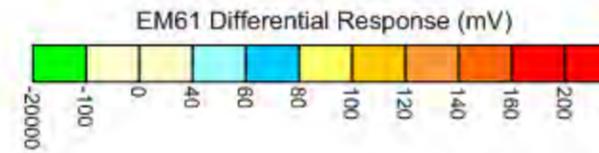
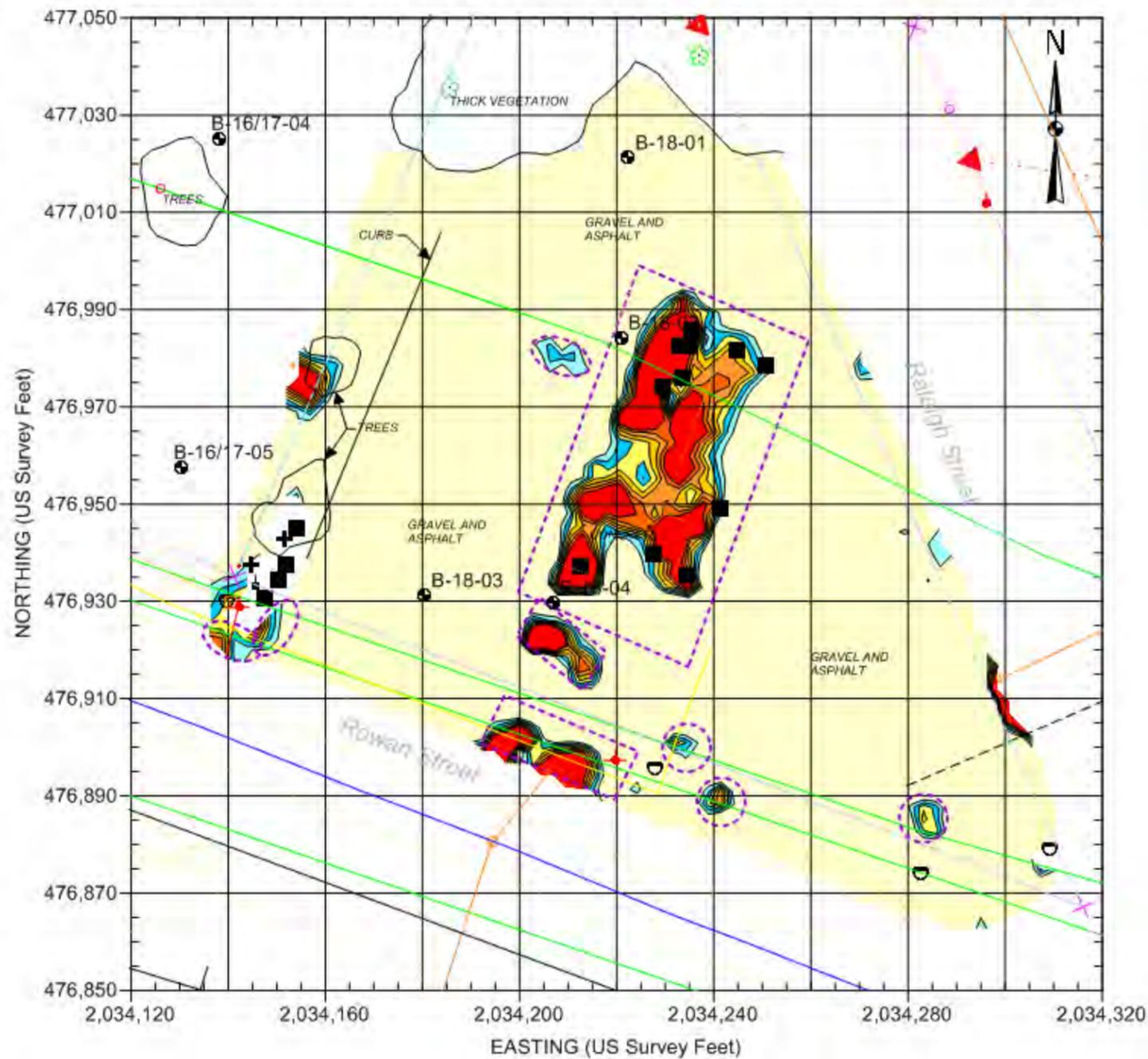


STATE PROJECT B-4490  
NC DEPARTMENT OF TRANSPORTATION  
CUMBERLAND COUNTY, NC  
PROJECT NO. 11821014.33

EM61  
EARLY TIME GATE  
RESPONSE

FIGURE 3

PARCEL 018



EXPLANATION	
	SIGN
	MISCELLANEOUS METALLIC OBJECT
	UTILITY POLE
	GUY WIRE
	EDGE OF NCDOT PROPOSED R/W
	PROPERTY LINE
	GPR SURVEY AREA
	BORING LOCATION

BASE PLAN FROM NCDOT FILE:  
B-4490\_rdy\_psh\_07.dgn  
(FOR SOME SITE FEATURES)

Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as drums and tanks. The EM data were collected on January 28, 2014, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on February 6, 2014, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.



STATE PROJECT B-4490  
NC DEPARTMENT OF TRANSPORTATION  
CUMBERLAND COUNTY, NC  
PROJECT NO. 11821014.33

EM61  
DIFFERENTIAL  
RESPONSE

**APPENDIX C**  
**SOIL BORING LOGS**





**GEO PROBE LOG**

**Project:** Preliminary Site Assessments  
Cumberland County  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-01**  
**Contract Number:** B-4490  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** W. Hall  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7822DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 2/19/14 **Finished:** 2/19/14  
**X:** 477021.237 m **Y:** 2034222.385 m  
**Ground Surface Elevation:** **Total Depth:** 12.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	2/19	1:54 PM	7.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt							
	SILTY SAND; wet, yellowish brown, probable RESIDUAL material						PID = 0.0 ppm	
					5		PID = 0.0 ppm	
		SM					PID = 0.0 ppm	
							PID = 0.0 ppm	
					10		PID = 0.0 ppm	
12.0						B-18-01	PID = 0.0 ppm	

Bottom of Geo Probe at 12.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite and cuttings upon completion.

TEST BORING LOG PSA.GPJ SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 3/27/14



**GEO PROBE LOG**

**Project:** Preliminary Site Assessments  
Cumberland County  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-02**  
**Contract Number:** B-4490  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** W. Hall  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7822DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 2/19/14 **Finished:** 2/19/14  
**X:** 476984.231 m **Y:** 2034220.93 m  
**Ground Surface Elevation:** **Total Depth:** 10.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	2/19	1:47 PM	7.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt							
	SILTY SAND WITH CLAY; wet, orangeish brown, probable RESIDUAL material, To gray at 5 ft	SM					PID = 0.0 ppm	
					5		PID = 0.0 ppm	
							PID = 0.0 ppm	
							PID = 0.0 ppm	
10.0					10		PID = 0.0 ppm	

Bottom of Geo Probe at 10.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite and cuttings upon completion.

TEST BORING LOG PSA.GPJ SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 3/27/14



**GEO PROBE LOG**

**Project:** Preliminary Site Assessments  
Cumberland County  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-03**  
**Contract Number:** B-4490  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** W. Hall  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7822DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 2/19/14 **Finished:** 2/19/14  
**X:** 476931.245 m **Y:** 2034180.447 m  
**Ground Surface Elevation:** **Total Depth:** 10.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	2/19	1:33 PM	7.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt							
	SILTY SAND; wet, light gray, probable RESIDUAL material, yellowish gray at 9 ft	SM					PID = 0.0 ppm	
					5		PID = 0.0 ppm	
							PID = 0.0 ppm	
8.0	CLAYEY SAND; moist, light gray, probable RESIDUAL material	SC					PID = 0.0 ppm	
10.0					10		PID = 0.0 ppm	

Bottom of Geo Probe at 10.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite and cuttings upon completion.

TEST BORING LOG PSA.GPJ SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 3/27/14



**GEO PROBE LOG**

**Project:** Preliminary Site Assessments  
Cumberland County  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-04**  
**Contract Number:** B-4490  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** W. Hall  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7822DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 2/19/14 **Finished:** 2/19/14  
**X:** 476929.673 m **Y:** 2034206.817 m  
**Ground Surface Elevation:** **Total Depth:** 10.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	2/19	1:40 PM	7.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt							
	SILTY SAND; moist, orangeish brown	SM					PID = 0.0 ppm	
							PID = 0.0 ppm	
5.0	SILTY SAND WITH CLAY; wet, light gray, probable RESIDUAL material	SM			5		PID = 0.3 ppm	
							PID = 0.0 ppm	
10.0					10		PID = 0.0 ppm	

Bottom of Geo Probe at 10.0 ft.  
Boring terminated at selected depth.  
Boring backfilled with bentonite and cuttings upon completion.

TEST BORING LOG PSA.GPJ SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 3/27/14



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** B-18-01A  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034222.385 ft **East:** 477021.237 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 7.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:57 AM	5.5'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.1	Asphalt	FILL					PID = 0 ppm	
0.6	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand					B-18-01A (1-3 ft)	PID = 0 ppm	
	SILTY SAND; moist to wet, light orangeish brown, estimated 5 - 10% medium to coarse, probable RESIDUAL material	SM					PID = 0 ppm	
					5	B-18-01A (5-7 ft)	PID = 0 ppm	
7.0							PID = 0 ppm	

Bottom of Geo Probe at 7.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** B-18-02A  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034220.93 ft **East:** 476984.231 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:11 AM	4.0'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
1.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-02A (1-2 ft)	PID = 0 ppm	
4.0	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-02A (4-5 ft)	PID = 0 ppm	
5.0	SILTY SAND; wet, light brown, probable RESIDUAL material	SM			5			

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.

TEST BORING LOG: FAYETTEVILLE PSAS.GPJ, SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 6/9/14



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-03A**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034180.447 ft **East:** 476931.245 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	11:03 AM	4.8'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
2.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-03A (1-2 ft)	PID = 0 ppm	
4.5	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-03A (4-5 ft)	PID = 0 ppm	
5.0	SILTY SAND; wet, dark blackish brown, estimated 5 - 10% organics, probable RESIDUAL material Bottom of Geo Probe at 5.0 ft. Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.	SM			5			

TEST BORING LOG FAYETTEVILLE PSAS.GPJ SCHNABEL DATA TEMPLATE 2008\_07\_06.GDT 6/9/14



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** B-18-04A  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034207.104 ft **East:** 476929.673 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 7.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:24 AM	4.8'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
2.5	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-04A (1-3 ft)	PID = 0.3 ppm	
7.0	SILTY SAND WITH CLAY; moist to wet, light brown to dark brownish gray, probable RESIDUAL material	SM			5	B-18-04A (5-7 ft)	PID = 0 ppm	

Bottom of Geo Probe at 7.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.





**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-05**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034240.32 ft **East:** 476952.477 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:38 AM	4.8'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
2.5	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand, estimated <5% gravel	FILL				B-18-05 (1-2 ft)	PID = 0 ppm	
5.0	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-05 (4-5 ft)	PID = 0 ppm	

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-06**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034249.593 ft **East:** 476975.801 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:41 AM	4.8'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0.3 ppm	
	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material					B-18-06 (1-2 ft)	PID = 0 ppm	
		SM				B-18-06 (4-5 ft)	PID = 0 ppm	
5.0		▽			5			

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-07**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034240.601 ft **East:** 476992.942 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	▽ 5/15/14	10:45 AM	4.8'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
1.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-07 (1-2 ft)	PID = 0 ppm	
	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-07 (4-5 ft)	PID = 0 ppm	
5.0		▽			5			

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-08**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034203.508 ft **East:** 476949.105 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:19 AM	4.5'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0.4 ppm	
2.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-08 (1-2 ft)	PID = 0.5 ppm	
5.0	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-08 (4-5 ft)	PID = 0 ppm	

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-09**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034240.039 ft **East:** 476934.774 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	▽ 5/15/14	10:31 AM	4.8'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
2.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-09 (1-2 ft)	PID = 0 ppm	
5.0	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SM				B-18-09 (4-5 ft)	PID = 0 ppm	

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-10**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034274.728 ft **East:** 476903.72 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 5.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	11:08 AM	4.8'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt	FILL					PID = 0 ppm	
0.5	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-10 (1-2 ft)	PID = 0 ppm	
4.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	SM				B-18-10 (4-5 ft)	PID = 0 ppm	
5.0	SILTY SAND; wet, dark blackish brown, estimated 5 - 10% organics, probable RESIDUAL material				5			

Bottom of Geo Probe at 5.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-11**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034193.406 ft **East:** 476982.168 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 7.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:05 AM	4.0'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt	FILL					PID = 0 ppm	
0.8	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	SM				B-18-11 (1-3 ft)	PID = 0 ppm	
4.0	SILTY SAND; moist to wet, grayish brown, estimated 30 - 45% fine grained sand, probable RESIDUAL material	SC					PID = 0 ppm	
5.0	FAT CLAY; moist, gray	SM			5	B-18-11 (5-7 ft)	PID = 0 ppm	
7.0	SILTY SAND; moist, light brown, estimated 5 - 10% gravel, probable RESIDUAL material	SM					PID = 0 ppm	

Bottom of Geo Probe at 7.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**GEO PROBE LOG**

**Project:** B-4490, Cumberland County  
Parcel 018  
Fayetteville, North Carolina

**Geo Probe Number:** **B-18-12**  
**Contract Number:**  
**Sheet:** 1 of 1

**Contractor:** Saedacco, Inc.  
Fort Mill, South Carolina  
**Contractor Foreman:** R. Lemire  
**Schnabel Representative:** B. Bradley  
**Equipment:** Geoprobe 7730DT  
**Method:** 3-1/4" Probe Rod,  
Macrocore  
**Hammer Type:**  
**Dates Started:** 5/15/14 **Finished:** 5/15/14  
**North:** 2034246.854 ft **East:** 477010.042 ft  
**Plunge:** -90 **Bearing:**  
**Ground Surface Elevation:** **Total Depth:** 7.0 ft

Water Level Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	5/15/14	10:51 AM	5.5'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA		TESTS	REMARKS
					DEPTH	DATA		
0.2	Asphalt						PID = 0 ppm	
1.0	PROBABLE FILL, sampled as silty sand; moist, orangeish brown, estimated 15 - 25% fine to medium sand	FILL				B-18-12 (1-3 ft)	PID = 0 ppm	
	SILTY SAND; moist to wet, light orangeish brown, estimated 5 - 10% medium to coarse, probable RESIDUAL material	SM					PID = 0 ppm	
					5	B-18-12 (5-7 ft)	PID = 0 ppm	
7.0								

Bottom of Geo Probe at 7.0 ft.  
Boring backfilled with alternating layers of bentonite chips and cuttings upon completion.



**APPENDIX D**  
**SOIL BORING GPS COORDINATES**

**SOIL BORING GPS COORDINATES  
NCDOT B-4490, CUMBERLAND COUNTY**

<b>Soil Boring GPS Coordinates</b>		
Boring Identification	Easting	Northing
	X	Y
B-18-01A	2034222.385	477021.237
B-18-02A	2034220.930	476984.231
B-18-03A	2034180.447	476931.245
B-18-04A	2034207.104	476929.673
B-18-05	2034240.320	476952.477
B-18-06	2034249.593	476975.801
B-18-07	2034240.601	476992.942
B-18-08	2034203.508	476949.105
B-18-09	2034240.039	476934.774
B-18-10	2034274.728	476903.720
B-18-11	2034193.406	476982.168
B-18-12	2034246.854	477010.042

\* NC State Plane 1983 System, NC 3200 Zone,  
NAD 83 Datum, US Survey Feet

**APPENDIX E**

**FEBRUARY 19, 2014 GROUNDWATER LABORATORY  
ANALYTICAL RESULTS**

March 08, 2014

Chemical Testing Engineer  
Materials and Tests Unit  
1801 Blue Ridge Road  
Raleigh, NC 27607

RE: Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on February 20, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin  
kevin.godwin@pacelabs.com  
Project Manager

Enclosures

cc: Ben Bradley, Schnabel Engineering



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268  
Illinois Certification #: 200074  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky UST Certification #: 0042

Louisiana/NELAP Certification #: 04076  
Ohio VAP Certification #: CL-0065  
Pennsylvania Certification #: 68-04991  
West Virginia Certification #: 330

---

### Charlotte Certification IDs

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
West Virginia Certification #: 357  
Virginia/VELAP Certification #: 460221

---

### Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
West Virginia Certification #: 356  
Virginia/VELAP Certification #: 460222

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92190355001	B-13-01 6FT	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	LLW	1	PASI-C
92190355002	DUPLICATE -1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	LLW	1	PASI-C
92190355003	B-16/17-01	EPA 8015 - Alcohol-Glycol	CEM	1	PASI-I
		MADEP EPH	EJK	7	PASI-C
		MADEP VPH	GAW	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 625	RES	58	PASI-C
		SM 6200B	CAH	64	PASI-C
		EPA 8260	MCK	63	PASI-C
92190355004	B-18-01	EPA 8015 - Alcohol-Glycol	CEM	1	PASI-I
		MADEP EPH	EJK	7	PASI-C
		MADEP VPH	GAW	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 625	RES	60	PASI-C
		SM 6200B	CAH	64	PASI-C
		EPA 8260	MCK	63	PASI-C
92190355005	DUPLICATE-2	EPA 8015 - Alcohol-Glycol	CEM	1	PASI-I
		MADEP EPH	EJK	7	PASI-C
		MADEP VPH	GAW	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 625	RES	59	PASI-C
		SM 6200B	CAH	64	PASI-C
		EPA 8260	MCK	63	PASI-C
92190355006	B-07-02 8'	EPA 8015 Modified	NU1	2	PASI-C
		MADEP EPH	EJK	7	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		MADEP VPH	GAW	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	RES	74	PASI-C
		EPA 8260	DLK	70	PASI-C
92190355007	B-07-06 10'	ASTM D2974-87	LLW	1	PASI-C
		EPA 8015 Modified	NU1	2	PASI-C
		MADEP EPH	EJK	7	PASI-C

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8015 Modified	GAW	2	PASI-C
		MADEP VPH	GAW	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	RES	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	LLW	1	PASI-C

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 8015 Modified  
**Description:** 8015 GCS THC-Diesel  
**Client:** NCDOT South East  
**Date:** March 08, 2014

**General Information:**

4 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/26002

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92189902002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1141207)
  - Diesel Components
- MSD (Lab ID: 1141208)
  - Diesel Components

R1: RPD value was outside control limits.

- MSD (Lab ID: 1141208)
  - Diesel Components
  - n-Pentacosane (S)

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 8015 - Alcohol-Glycol

**Description:** 8015M Glycols in water

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for EPA 8015 - Alcohol-Glycol. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

---

**Method:** MADEP EPH  
**Description:** MADEP EPH NC Soil  
**Client:** NCDOT South East  
**Date:** March 08, 2014

**General Information:**

2 samples were analyzed for MADEP EPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with MADEP EPH with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/26076

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- B-07-02 8' (Lab ID: 92190355006)
- Nonatriacontane (S)

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: OEXT/26076

N2: The lab does not hold TNI accreditation for this parameter.

- B-07-02 8' (Lab ID: 92190355006)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-07-06 10' (Lab ID: 92190355007)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Soil

**Client:** NCDOT South East

**Date:** March 08, 2014

Analyte Comments:

QC Batch: OEXT/26076

N2: The lab does not hold TNI accreditation for this parameter.

- B-07-06 10' (Lab ID: 92190355007)
  - Aromatic (C11-C22)
- BLANK (Lab ID: 1143989)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCS (Lab ID: 1143990)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCSD (Lab ID: 1143991)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Water

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for MADEP EPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with MADEP EPH with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: OEXT/26031

N2: The lab does not hold TNI accreditation for this parameter.

- B-16/17-01 (Lab ID: 92190355003)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-01 (Lab ID: 92190355004)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- BLANK (Lab ID: 1142333)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Water

**Client:** NCDOT South East

**Date:** March 08, 2014

Analyte Comments:

QC Batch: OEXT/26031

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 1142333)
  - Aromatic (C11-C22)
- DUPLICATE-2 (Lab ID: 92190355005)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCS (Lab ID: 1142334)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCSD (Lab ID: 1142335)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 8015 Modified

**Description:** Gasoline Range Organics

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

4 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP VPH

**Description:** VPH NC Soil

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

2 samples were analyzed for MADEP VPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with MADEP VPH with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

QC Batch: GCV/7860

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).

- B-07-02 8' (Lab ID: 92190355006)
  - 4-Bromofluorobenzene (FID) (S)
  - 4-Bromofluorobenzene (PID) (S)
- B-07-06 10' (Lab ID: 92190355007)
  - 4-Bromofluorobenzene (FID) (S)
  - 4-Bromofluorobenzene (PID) (S)

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP VPH

**Description:** VPH NC Soil

**Client:** NCDOT South East

**Date:** March 08, 2014

Analyte Comments:

QC Batch: GCV/7860

N2: The lab does not hold TNI accreditation for this parameter.

- B-07-02 8' (Lab ID: 92190355006)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-07-06 10' (Lab ID: 92190355007)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- BLANK (Lab ID: 1152103)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 1152104)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 1152105)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

---

**Method:** MADEP VPH  
**Description:** VPH NC Water  
**Client:** NCDOT South East  
**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for MADEP VPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: GCV/7835

N2: The lab does not hold TNI accreditation for this parameter.

- B-16/17-01 (Lab ID: 92190355003)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-01 (Lab ID: 92190355004)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- BLANK (Lab ID: 1148658)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** MADEP VPH

**Description:** VPH NC Water

**Client:** NCDOT South East

**Date:** March 08, 2014

Analyte Comments:

QC Batch: GCV/7835

N2: The lab does not hold TNI accreditation for this parameter.

- DUPLICATE-2 (Lab ID: 92190355005)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 1148659)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 1148660)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 6010

**Description:** 6010 MET ICP

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 625

**Description:** 625 MSSV

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for EPA 625. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 625 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/26010

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92190065001

R1: RPD value was outside control limits.

- MSD (Lab ID: 1141553)
  - 2,4-Dimethylphenol
  - 2-Chlorophenol
  - N-Nitroso-di-n-propylamine
  - Phenol
  - bis(2-Chloroisopropyl) ether

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

---

**Method:** EPA 8270  
**Description:** 8270 MSSV Microwave  
**Client:** NCDOT South East  
**Date:** March 08, 2014

**General Information:**

2 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/26015

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- B-07-02 8' (Lab ID: 92190355006)
- Nitrobenzene-d5 (S)

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: OEXT/26015

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- B-07-02 8' (Lab ID: 92190355006)
- Nitrobenzene-d5 (S)

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** SM 6200B

**Description:** 6200B MSV

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for SM 6200B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25905

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92190689006

R1: RPD value was outside control limits.

- MSD (Lab ID: 1145844)
  - 1,2,3-Trichloropropane
  - 1,2-Dibromo-3-chloropropane
  - Ethanol

**Additional Comments:**

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 8260

**Description:** 8260 MSV Low Level

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

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**Method:** EPA 8260

**Description:** 8260/5035A Volatile Organics

**Client:** NCDOT South East

**Date:** March 08, 2014

**General Information:**

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25855

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1142404)
  - Bromomethane
  - Methylene Chloride

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: MSV/25855

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- B-07-06 10' (Lab ID: 92190355007)
  - Dichlorodifluoromethane

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## PROJECT NARRATIVE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

**Method:** EPA 8260

**Description:** 8260/5035A Volatile Organics

**Client:** NCDOT South East

**Date:** March 08, 2014

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-13-01 6FT**      **Lab ID: 92190355001**      Collected: 02/19/14 14:15      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546						
Diesel Components	<b>178</b>	mg/kg	6.2	1	02/20/14 16:30	02/21/14 15:40	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	56	%	41-119	1	02/20/14 16:30	02/21/14 15:40	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	<b>24.0</b>	mg/kg	5.3	1	02/21/14 09:04	02/21/14 16:26	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	124	%	70-167	1	02/21/14 09:04	02/21/14 16:26	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>19.5</b>	%	0.10	1		03/03/14 11:58		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: DUPLICATE -1**      **Lab ID: 92190355002**      Collected: 02/19/14 00:00      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 3546				
Diesel Components	<b>486</b>	mg/kg	12.0	2	02/20/14 16:30	02/21/14 17:43	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	69 %		41-119	2	02/20/14 16:30	02/21/14 17:43	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 5035A/5030B				
Gasoline Range Organics	<b>36.8</b>	mg/kg	4.8	1	02/21/14 09:04	02/21/14 17:35	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	147 %		70-167	1	02/21/14 09:04	02/21/14 17:35	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.9</b>	%	0.10	1		03/03/14 11:58		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-16/17-01	Lab ID: 92190355003	Collected: 02/19/14 13:00	Received: 02/20/14 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015M Glycols in water</b>								
Analytical Method: EPA 8015 - Alcohol-Glycol								
Ethylene glycol	ND mg/L		10.0	1		02/26/14 14:12	107-21-1	
<b>MADEP EPH NC Water</b>								
Analytical Method: MADEP EPH Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:13		N2
Aliphatic (C19-C36)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:13		N2
Aromatic (C11-C22)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:13		N2
<b>Surrogates</b>								
Nonatriacontane (S)	52 %		40-140	1	02/21/14 10:25	02/24/14 19:13	7194-86-7	
o-Terphenyl (S)	59 %		40-140	1	02/21/14 10:25	02/24/14 19:13	84-15-1	
2-Fluorobiphenyl (S)	43 %		40-140	1	02/21/14 10:25	02/24/14 19:13	321-60-8	
2-Bromonaphthalene (S)	62 %		40-140	1	02/21/14 10:25	02/24/14 19:13	580-13-2	
<b>VPH NC Water</b>								
Analytical Method: MADEP VPH								
Aliphatic (C05-C08)	ND ug/L		50.0	1		03/02/14 01:35		N2
Aliphatic (C09-C12)	ND ug/L		50.0	1		03/02/14 01:35		N2
Aromatic (C09-C10)	ND ug/L		50.0	1		03/02/14 01:35		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	90 %		70-130	1		03/02/14 01:35	460-00-4	
4-Bromofluorobenzene (PID) (S)	84 %		70-130	1		03/02/14 01:35	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Chromium	5.8 ug/L		5.0	1	02/21/14 10:00	02/21/14 22:26	7440-47-3	
Lead	ND ug/L		5.0	1	02/21/14 10:00	02/21/14 22:26	7439-92-1	
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	83-32-9	
Acenaphthylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	208-96-8	
Anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	120-12-7	
Benzo(a)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	56-55-3	
Benzo(a)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	50-32-8	
Benzo(b)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	191-24-2	
Benzo(k)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	207-08-9	
4-Bromophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	101-55-3	
Butylbenzylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	59-50-7	
bis(2-Chloroethoxy)methane	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	108-60-1	
2-Chloronaphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	91-58-7	
2-Chlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	95-57-8	
4-Chlorophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	7005-72-3	
Chrysene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	53-70-3	
3,3'-Dichlorobenzidine	ND ug/L		25.0	1	02/20/14 13:00	02/28/14 03:24	91-94-1	
2,4-Dichlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	120-83-2	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-16/17-01**      **Lab ID: 92190355003**      Collected: 02/19/14 13:00      Received: 02/20/14 09:30      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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**625 MSSV**

Analytical Method: EPA 625    Preparation Method: EPA 625

Diethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	105-67-9	
Dimethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	131-11-3	
Di-n-butylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		20.0	1	02/20/14 13:00	02/28/14 03:24	534-52-1	
2,4-Dinitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 03:24	51-28-5	
2,4-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	121-14-2	
2,6-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	606-20-2	
Di-n-octylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	117-81-7	
Fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	206-44-0	
Fluorene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	86-73-7	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	87-68-3	
Hexachlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	77-47-4	
Hexachloroethane	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	193-39-5	
Isophorone	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	78-59-1	
Naphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	91-20-3	
Nitrobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	98-95-3	
2-Nitrophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	88-75-5	
4-Nitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 03:24	100-02-7	
N-Nitrosodimethylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	86-30-6	
Pentachlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	87-86-5	
Phenanthrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	85-01-8	
Phenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	108-95-2	
Pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:24	120-82-1	
2,4,6-Trichlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:24	88-06-2	

**Surrogates**

Nitrobenzene-d5 (S)	39 %		10-120	1	02/20/14 13:00	02/28/14 03:24	4165-60-0	
2-Fluorobiphenyl (S)	37 %		15-120	1	02/20/14 13:00	02/28/14 03:24	321-60-8	
Terphenyl-d14 (S)	69 %		11-131	1	02/20/14 13:00	02/28/14 03:24	1718-51-0	
Phenol-d6 (S)	19 %		10-120	1	02/20/14 13:00	02/28/14 03:24	13127-88-3	
2-Fluorophenol (S)	26 %		10-120	1	02/20/14 13:00	02/28/14 03:24	367-12-4	
2,4,6-Tribromophenol (S)	59 %		10-137	1	02/20/14 13:00	02/28/14 03:24	118-79-6	

**6200B MSV**

Analytical Method: SM 6200B

Benzene	ND ug/L		0.50	1		02/26/14 21:32	71-43-2	
Bromobenzene	ND ug/L		0.50	1		02/26/14 21:32	108-86-1	
Bromochloromethane	ND ug/L		0.50	1		02/26/14 21:32	74-97-5	
Bromodichloromethane	ND ug/L		0.50	1		02/26/14 21:32	75-27-4	
Bromoform	ND ug/L		0.50	1		02/26/14 21:32	75-25-2	
Bromomethane	ND ug/L		5.0	1		02/26/14 21:32	74-83-9	
n-Butylbenzene	ND ug/L		0.50	1		02/26/14 21:32	104-51-8	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-16/17-01		Lab ID: 92190355003	Collected: 02/19/14 13:00	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
sec-Butylbenzene	ND	ug/L	0.50	1		02/26/14 21:32	135-98-8	
tert-Butylbenzene	ND	ug/L	0.50	1		02/26/14 21:32	98-06-6	
Carbon tetrachloride	ND	ug/L	0.50	1		02/26/14 21:32	56-23-5	
Chlorobenzene	ND	ug/L	0.50	1		02/26/14 21:32	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/26/14 21:32	75-00-3	
Chloroform	ND	ug/L	0.50	1		02/26/14 21:32	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/26/14 21:32	74-87-3	
2-Chlorotoluene	ND	ug/L	0.50	1		02/26/14 21:32	95-49-8	
4-Chlorotoluene	ND	ug/L	0.50	1		02/26/14 21:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	1		02/26/14 21:32	96-12-8	
Dibromochloromethane	ND	ug/L	0.50	1		02/26/14 21:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	1		02/26/14 21:32	106-93-4	
Dibromomethane	ND	ug/L	0.50	1		02/26/14 21:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:32	106-46-7	
Dichlorodifluoromethane	ND	ug/L	0.50	1		02/26/14 21:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	0.50	1		02/26/14 21:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	0.50	1		02/26/14 21:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	1		02/26/14 21:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	0.50	1		02/26/14 21:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	1		02/26/14 21:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:32	10061-02-6	
Diisopropyl ether	ND	ug/L	0.50	1		02/26/14 21:32	108-20-3	
Ethanol	ND	ug/L	200	1		02/26/14 21:32	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		02/26/14 21:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		02/26/14 21:32	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	1		02/26/14 21:32	98-82-8	
Methylene Chloride	ND	ug/L	2.0	1		02/26/14 21:32	75-09-2	
Methyl-tert-butyl ether	<b>0.87</b>	ug/L	0.50	1		02/26/14 21:32	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/26/14 21:32	91-20-3	
n-Propylbenzene	ND	ug/L	0.50	1		02/26/14 21:32	103-65-1	
Styrene	ND	ug/L	0.50	1		02/26/14 21:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1		02/26/14 21:32	630-20-6	
1,1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1		02/26/14 21:32	79-34-5	
Tetrachloroethene	ND	ug/L	0.50	1		02/26/14 21:32	127-18-4	
Toluene	ND	ug/L	0.50	1		02/26/14 21:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		02/26/14 21:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	1		02/26/14 21:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	0.50	1		02/26/14 21:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	0.50	1		02/26/14 21:32	79-00-5	
Trichloroethene	<b>0.57</b>	ug/L	0.50	1		02/26/14 21:32	79-01-6	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-16/17-01		Lab ID: 92190355003	Collected: 02/19/14 13:00	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
Trichlorofluoromethane	ND ug/L		1.0	1		02/26/14 21:32	75-69-4	
1,2,3-Trichloropropane	ND ug/L		0.50	1		02/26/14 21:32	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 21:32	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 21:32	108-67-8	
Vinyl chloride	ND ug/L		1.0	1		02/26/14 21:32	75-01-4	
m&p-Xylene	ND ug/L		1.0	1		02/26/14 21:32	179601-23-1	
o-Xylene	ND ug/L		0.50	1		02/26/14 21:32	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102 %		70-130	1		02/26/14 21:32	17060-07-0	
4-Bromofluorobenzene (S)	95 %		70-130	1		02/26/14 21:32	460-00-4	
Toluene-d8 (S)	101 %		70-130	1		02/26/14 21:32	2037-26-5	
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		25.0	1		02/22/14 02:55	67-64-1	
Benzene	ND ug/L		1.0	1		02/22/14 02:55	71-43-2	
Bromobenzene	ND ug/L		1.0	1		02/22/14 02:55	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		02/22/14 02:55	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		02/22/14 02:55	75-27-4	
Bromoform	ND ug/L		1.0	1		02/22/14 02:55	75-25-2	
Bromomethane	ND ug/L		2.0	1		02/22/14 02:55	74-83-9	
2-Butanone (MEK)	ND ug/L		5.0	1		02/22/14 02:55	78-93-3	
Carbon tetrachloride	ND ug/L		1.0	1		02/22/14 02:55	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	108-90-7	
Chloroethane	ND ug/L		1.0	1		02/22/14 02:55	75-00-3	
Chloroform	ND ug/L		1.0	1		02/22/14 02:55	67-66-3	
Chloromethane	ND ug/L		1.0	1		02/22/14 02:55	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		02/22/14 02:55	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		02/22/14 02:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		5.0	1		02/22/14 02:55	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		02/22/14 02:55	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		02/22/14 02:55	106-93-4	
Dibromomethane	ND ug/L		1.0	1		02/22/14 02:55	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		02/22/14 02:55	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		02/22/14 02:55	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		02/22/14 02:55	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	1		02/22/14 02:55	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		02/22/14 02:55	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		02/22/14 02:55	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		02/22/14 02:55	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		02/22/14 02:55	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		02/22/14 02:55	594-20-7	
1,1-Dichloropropene	ND ug/L		1.0	1		02/22/14 02:55	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		02/22/14 02:55	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		02/22/14 02:55	10061-02-6	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-16/17-01		Lab ID: 92190355003	Collected: 02/19/14 13:00	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
Diisopropyl ether	ND ug/L		1.0	1		02/22/14 02:55	108-20-3	
Ethylbenzene	ND ug/L		1.0	1		02/22/14 02:55	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		1.0	1		02/22/14 02:55	87-68-3	
2-Hexanone	ND ug/L		5.0	1		02/22/14 02:55	591-78-6	
p-Isopropyltoluene	ND ug/L		1.0	1		02/22/14 02:55	99-87-6	
Methylene Chloride	ND ug/L		2.0	1		02/22/14 02:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		5.0	1		02/22/14 02:55	108-10-1	
Methyl-tert-butyl ether	ND ug/L		1.0	1		02/22/14 02:55	1634-04-4	
Naphthalene	ND ug/L		1.0	1		02/22/14 02:55	91-20-3	
Styrene	ND ug/L		1.0	1		02/22/14 02:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		1.0	1		02/22/14 02:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	1		02/22/14 02:55	79-34-5	
Tetrachloroethene	ND ug/L		1.0	1		02/22/14 02:55	127-18-4	
Toluene	ND ug/L		1.0	1		02/22/14 02:55	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		1.0	1		02/22/14 02:55	120-82-1	
1,1,1-Trichloroethane	ND ug/L		1.0	1		02/22/14 02:55	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	1		02/22/14 02:55	79-00-5	
Trichloroethene	ND ug/L		1.0	1		02/22/14 02:55	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		02/22/14 02:55	75-69-4	
1,2,3-Trichloropropane	ND ug/L		1.0	1		02/22/14 02:55	96-18-4	
Vinyl acetate	ND ug/L		2.0	1		02/22/14 02:55	108-05-4	
Vinyl chloride	ND ug/L		1.0	1		02/22/14 02:55	75-01-4	
Xylene (Total)	ND ug/L		2.0	1		02/22/14 02:55	1330-20-7	
m&p-Xylene	ND ug/L		2.0	1		02/22/14 02:55	179601-23-1	
o-Xylene	ND ug/L		1.0	1		02/22/14 02:55	95-47-6	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98 %		70-130	1		02/22/14 02:55	460-00-4	
1,2-Dichloroethane-d4 (S)	96 %		70-130	1		02/22/14 02:55	17060-07-0	
Toluene-d8 (S)	97 %		70-130	1		02/22/14 02:55	2037-26-5	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-18-01	Lab ID: 92190355004	Collected: 02/19/14 14:30	Received: 02/20/14 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015M Glycols in water</b>								
Analytical Method: EPA 8015 - Alcohol-Glycol								
Ethylene glycol	ND mg/L		10.0	1		02/26/14 14:17	107-21-1	
<b>MADEP EPH NC Water</b>								
Analytical Method: MADEP EPH Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:45		N2
Aliphatic (C19-C36)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:45		N2
Aromatic (C11-C22)	ND ug/L		100	1	02/21/14 10:25	02/24/14 19:45		N2
<b>Surrogates</b>								
Nonatriacontane (S)	67 %		40-140	1	02/21/14 10:25	02/24/14 19:45	7194-86-7	
o-Terphenyl (S)	50 %		40-140	1	02/21/14 10:25	02/24/14 19:45	84-15-1	
2-Fluorobiphenyl (S)	61 %		40-140	1	02/21/14 10:25	02/24/14 19:45	321-60-8	
2-Bromonaphthalene (S)	74 %		40-140	1	02/21/14 10:25	02/24/14 19:45	580-13-2	
<b>VPH NC Water</b>								
Analytical Method: MADEP VPH								
Aliphatic (C05-C08)	ND ug/L		50.0	1		03/02/14 01:58		N2
Aliphatic (C09-C12)	ND ug/L		50.0	1		03/02/14 01:58		N2
Aromatic (C09-C10)	ND ug/L		50.0	1		03/02/14 01:58		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	85 %		70-130	1		03/02/14 01:58	460-00-4	
4-Bromofluorobenzene (PID) (S)	82 %		70-130	1		03/02/14 01:58	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Chromium	10.4 ug/L		5.0	1	02/21/14 10:00	02/21/14 22:29	7440-47-3	
Lead	ND ug/L		5.0	1	02/21/14 10:00	02/21/14 22:29	7439-92-1	
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	83-32-9	
Acenaphthylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	208-96-8	
Anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	120-12-7	
Benzo(a)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	56-55-3	
Benzo(a)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	50-32-8	
Benzo(b)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	191-24-2	
Benzo(k)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	207-08-9	
4-Bromophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	101-55-3	
Butylbenzylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	59-50-7	
bis(2-Chloroethoxy)methane	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	108-60-1	
2-Chloronaphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	91-58-7	
2-Chlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	95-57-8	
4-Chlorophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	7005-72-3	
Chrysene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	53-70-3	
3,3'-Dichlorobenzidine	ND ug/L		25.0	1	02/20/14 13:00	02/28/14 03:51	91-94-1	
2,4-Dichlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	120-83-2	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-18-01**      **Lab ID: 92190355004**      Collected: 02/19/14 14:30      Received: 02/20/14 09:30      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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**625 MSSV**

Analytical Method: EPA 625    Preparation Method: EPA 625

Diethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	105-67-9	
Dimethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	131-11-3	
Di-n-butylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		20.0	1	02/20/14 13:00	02/28/14 03:51	534-52-1	
2,4-Dinitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 03:51	51-28-5	
2,4-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	121-14-2	
2,6-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	606-20-2	
Di-n-octylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	117-81-7	
Fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	206-44-0	
Fluorene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	86-73-7	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	87-68-3	
Hexachlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	77-47-4	
Hexachloroethane	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	193-39-5	
Isophorone	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	78-59-1	
Naphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	91-20-3	
Nitrobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	98-95-3	
2-Nitrophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	88-75-5	
4-Nitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 03:51	100-02-7	
N-Nitrosodimethylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	86-30-6	
Pentachlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	87-86-5	
Phenanthrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	85-01-8	
Phenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	108-95-2	
Pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 03:51	120-82-1	
2,4,6-Trichlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 03:51	88-06-2	

**Surrogates**

Nitrobenzene-d5 (S)	48 %		10-120	1	02/20/14 13:00	02/28/14 03:51	4165-60-0	
2-Fluorobiphenyl (S)	48 %		15-120	1	02/20/14 13:00	02/28/14 03:51	321-60-8	
Terphenyl-d14 (S)	68 %		11-131	1	02/20/14 13:00	02/28/14 03:51	1718-51-0	
Phenol-d6 (S)	31 %		10-120	1	02/20/14 13:00	02/28/14 03:51	13127-88-3	
2-Fluorophenol (S)	35 %		10-120	1	02/20/14 13:00	02/28/14 03:51	367-12-4	
2,4,6-Tribromophenol (S)	61 %		10-137	1	02/20/14 13:00	02/28/14 03:51	118-79-6	

**Tentatively Identified Compounds**

Unknown	113 ug/L			1	02/20/14 13:00	02/28/14 03:51		N
Unknown	168 ug/L			1	02/20/14 13:00	02/28/14 03:51		N

**6200B MSV**

Analytical Method: SM 6200B

Benzene	ND ug/L		0.50	1		02/26/14 21:48	71-43-2	
Bromobenzene	ND ug/L		0.50	1		02/26/14 21:48	108-86-1	
Bromochloromethane	ND ug/L		0.50	1		02/26/14 21:48	74-97-5	
Bromodichloromethane	ND ug/L		0.50	1		02/26/14 21:48	75-27-4	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-18-01		Lab ID: 92190355004	Collected: 02/19/14 14:30	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
Bromoform	ND	ug/L	0.50	1		02/26/14 21:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/26/14 21:48	74-83-9	
n-Butylbenzene	ND	ug/L	0.50	1		02/26/14 21:48	104-51-8	
sec-Butylbenzene	ND	ug/L	0.50	1		02/26/14 21:48	135-98-8	
tert-Butylbenzene	ND	ug/L	0.50	1		02/26/14 21:48	98-06-6	
Carbon tetrachloride	ND	ug/L	0.50	1		02/26/14 21:48	56-23-5	
Chlorobenzene	ND	ug/L	0.50	1		02/26/14 21:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/26/14 21:48	75-00-3	
Chloroform	ND	ug/L	0.50	1		02/26/14 21:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/26/14 21:48	74-87-3	
2-Chlorotoluene	ND	ug/L	0.50	1		02/26/14 21:48	95-49-8	
4-Chlorotoluene	ND	ug/L	0.50	1		02/26/14 21:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	1		02/26/14 21:48	96-12-8	
Dibromochloromethane	ND	ug/L	0.50	1		02/26/14 21:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	1		02/26/14 21:48	106-93-4	
Dibromomethane	ND	ug/L	0.50	1		02/26/14 21:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	0.50	1		02/26/14 21:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	0.50	1		02/26/14 21:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	0.50	1		02/26/14 21:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	0.50	1		02/26/14 21:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	0.50	1		02/26/14 21:48	75-35-4	
cis-1,2-Dichloroethene	<b>8.7</b>	ug/L	0.50	1		02/26/14 21:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	0.50	1		02/26/14 21:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	0.50	1		02/26/14 21:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	0.50	1		02/26/14 21:48	10061-02-6	
Diisopropyl ether	ND	ug/L	0.50	1		02/26/14 21:48	108-20-3	
Ethanol	ND	ug/L	200	1		02/26/14 21:48	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		02/26/14 21:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		02/26/14 21:48	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	1		02/26/14 21:48	98-82-8	
Methylene Chloride	ND	ug/L	2.0	1		02/26/14 21:48	75-09-2	
Methyl-tert-butyl ether	<b>1.3</b>	ug/L	0.50	1		02/26/14 21:48	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/26/14 21:48	91-20-3	
n-Propylbenzene	ND	ug/L	0.50	1		02/26/14 21:48	103-65-1	
Styrene	ND	ug/L	0.50	1		02/26/14 21:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1		02/26/14 21:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1		02/26/14 21:48	79-34-5	
Tetrachloroethene	<b>28.9</b>	ug/L	0.50	1		02/26/14 21:48	127-18-4	
Toluene	ND	ug/L	0.50	1		02/26/14 21:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		02/26/14 21:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	1		02/26/14 21:48	120-82-1	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Sample Project No.: 92190355

Sample: B-18-01		Lab ID: 92190355004	Collected: 02/19/14 14:30	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
1,1,1-Trichloroethane	ND ug/L		0.50	1		02/26/14 21:48	71-55-6	
1,1,2-Trichloroethane	ND ug/L		0.50	1		02/26/14 21:48	79-00-5	
Trichloroethene	<b>8.8</b> ug/L		0.50	1		02/26/14 21:48	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		02/26/14 21:48	75-69-4	
1,2,3-Trichloropropane	ND ug/L		0.50	1		02/26/14 21:48	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 21:48	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		0.50	1		02/26/14 21:48	108-67-8	
Vinyl chloride	ND ug/L		1.0	1		02/26/14 21:48	75-01-4	
m&p-Xylene	ND ug/L		1.0	1		02/26/14 21:48	179601-23-1	
o-Xylene	ND ug/L		0.50	1		02/26/14 21:48	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	103 %		70-130	1		02/26/14 21:48	17060-07-0	
4-Bromofluorobenzene (S)	96 %		70-130	1		02/26/14 21:48	460-00-4	
Toluene-d8 (S)	101 %		70-130	1		02/26/14 21:48	2037-26-5	
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
Acetone	ND ug/L		25.0	1		02/22/14 03:10	67-64-1	
Benzene	ND ug/L		1.0	1		02/22/14 03:10	71-43-2	
Bromobenzene	ND ug/L		1.0	1		02/22/14 03:10	108-86-1	
Bromochloromethane	ND ug/L		1.0	1		02/22/14 03:10	74-97-5	
Bromodichloromethane	ND ug/L		1.0	1		02/22/14 03:10	75-27-4	
Bromoform	ND ug/L		1.0	1		02/22/14 03:10	75-25-2	
Bromomethane	ND ug/L		2.0	1		02/22/14 03:10	74-83-9	
2-Butanone (MEK)	ND ug/L		5.0	1		02/22/14 03:10	78-93-3	
Carbon tetrachloride	ND ug/L		1.0	1		02/22/14 03:10	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		02/22/14 03:10	108-90-7	
Chloroethane	ND ug/L		1.0	1		02/22/14 03:10	75-00-3	
Chloroform	ND ug/L		1.0	1		02/22/14 03:10	67-66-3	
Chloromethane	ND ug/L		1.0	1		02/22/14 03:10	74-87-3	
2-Chlorotoluene	ND ug/L		1.0	1		02/22/14 03:10	95-49-8	
4-Chlorotoluene	ND ug/L		1.0	1		02/22/14 03:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		5.0	1		02/22/14 03:10	96-12-8	
Dibromochloromethane	ND ug/L		1.0	1		02/22/14 03:10	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		02/22/14 03:10	106-93-4	
Dibromomethane	ND ug/L		1.0	1		02/22/14 03:10	74-95-3	
1,2-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 03:10	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 03:10	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		02/22/14 03:10	106-46-7	
Dichlorodifluoromethane	ND ug/L		1.0	1		02/22/14 03:10	75-71-8	
1,1-Dichloroethane	ND ug/L		1.0	1		02/22/14 03:10	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		02/22/14 03:10	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	1		02/22/14 03:10	75-35-4	
cis-1,2-Dichloroethene	<b>7.4</b> ug/L		1.0	1		02/22/14 03:10	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		02/22/14 03:10	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		02/22/14 03:10	78-87-5	
1,3-Dichloropropane	ND ug/L		1.0	1		02/22/14 03:10	142-28-9	
2,2-Dichloropropane	ND ug/L		1.0	1		02/22/14 03:10	594-20-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

Sample: B-18-01		Lab ID: 92190355004	Collected: 02/19/14 14:30	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:10	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/22/14 03:10	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/22/14 03:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/22/14 03:10	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/22/14 03:10	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/22/14 03:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/22/14 03:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/22/14 03:10	108-10-1	
Methyl-tert-butyl ether	1.1	ug/L	1.0	1		02/22/14 03:10	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/22/14 03:10	91-20-3	
Styrene	ND	ug/L	1.0	1		02/22/14 03:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/22/14 03:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/22/14 03:10	79-34-5	
Tetrachloroethene	30.1	ug/L	1.0	1		02/22/14 03:10	127-18-4	
Toluene	ND	ug/L	1.0	1		02/22/14 03:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/22/14 03:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/22/14 03:10	79-00-5	
Trichloroethene	9.0	ug/L	1.0	1		02/22/14 03:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/22/14 03:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/22/14 03:10	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/22/14 03:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/22/14 03:10	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		02/22/14 03:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/22/14 03:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/22/14 03:10	95-47-6	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97 %		70-130	1		02/22/14 03:10	460-00-4	
1,2-Dichloroethane-d4 (S)	95 %		70-130	1		02/22/14 03:10	17060-07-0	
Toluene-d8 (S)	97 %		70-130	1		02/22/14 03:10	2037-26-5	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: DUPLICATE-2	Lab ID: 92190355005	Collected: 02/19/14 00:00	Received: 02/20/14 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015M Glycols in water</b>								
Analytical Method: EPA 8015 - Alcohol-Glycol								
Ethylene glycol	ND mg/L		10.0	1		02/26/14 14:22	107-21-1	
<b>MADEP EPH NC Water</b>								
Analytical Method: MADEP EPH Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND ug/L		100	1	02/21/14 10:25	02/24/14 20:17		N2
Aliphatic (C19-C36)	ND ug/L		100	1	02/21/14 10:25	02/24/14 20:17		N2
Aromatic (C11-C22)	ND ug/L		100	1	02/21/14 10:25	02/24/14 20:17		N2
<b>Surrogates</b>								
Nonatriacontane (S)	58 %		40-140	1	02/21/14 10:25	02/24/14 20:17	7194-86-7	
o-Terphenyl (S)	73 %		40-140	1	02/21/14 10:25	02/24/14 20:17	84-15-1	
2-Fluorobiphenyl (S)	83 %		40-140	1	02/21/14 10:25	02/24/14 20:17	321-60-8	
2-Bromonaphthalene (S)	104 %		40-140	1	02/21/14 10:25	02/24/14 20:17	580-13-2	
<b>VPH NC Water</b>								
Analytical Method: MADEP VPH								
Aliphatic (C05-C08)	ND ug/L		50.0	1		03/02/14 02:21		N2
Aliphatic (C09-C12)	ND ug/L		50.0	1		03/02/14 02:21		N2
Aromatic (C09-C10)	ND ug/L		50.0	1		03/02/14 02:21		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	86 %		70-130	1		03/02/14 02:21	460-00-4	
4-Bromofluorobenzene (PID) (S)	83 %		70-130	1		03/02/14 02:21	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Chromium	ND ug/L		5.0	1	02/21/14 10:00	02/21/14 22:33	7440-47-3	
Lead	ND ug/L		5.0	1	02/21/14 10:00	02/21/14 22:33	7439-92-1	
<b>625 MSSV</b>								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	83-32-9	
Acenaphthylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	208-96-8	
Anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	120-12-7	
Benzo(a)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	56-55-3	
Benzo(a)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	50-32-8	
Benzo(b)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	191-24-2	
Benzo(k)fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	207-08-9	
4-Bromophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	101-55-3	
Butylbenzylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	59-50-7	
bis(2-Chloroethoxy)methane	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	108-60-1	
2-Chloronaphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	91-58-7	
2-Chlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	95-57-8	
4-Chlorophenylphenyl ether	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	7005-72-3	
Chrysene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	53-70-3	
3,3'-Dichlorobenzidine	ND ug/L		25.0	1	02/20/14 13:00	02/28/14 04:17	91-94-1	
2,4-Dichlorophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	120-83-2	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: DUPLICATE-2	Lab ID: 92190355005	Collected: 02/19/14 00:00	Received: 02/20/14 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>625 MSSV</b>		Analytical Method: EPA 625 Preparation Method: EPA 625						
Diethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	105-67-9	
Dimethylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	131-11-3	
Di-n-butylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		20.0	1	02/20/14 13:00	02/28/14 04:17	534-52-1	
2,4-Dinitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 04:17	51-28-5	
2,4-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	121-14-2	
2,6-Dinitrotoluene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	606-20-2	
Di-n-octylphthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	117-81-7	
Fluoranthene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	206-44-0	
Fluorene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	86-73-7	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	87-68-3	
Hexachlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	77-47-4	
Hexachloroethane	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	193-39-5	
Isophorone	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	78-59-1	
Naphthalene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	91-20-3	
Nitrobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	98-95-3	
2-Nitrophenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	88-75-5	
4-Nitrophenol	ND ug/L		50.0	1	02/20/14 13:00	02/28/14 04:17	100-02-7	
N-Nitrosodimethylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	86-30-6	
Pentachlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	87-86-5	
Phenanthrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	85-01-8	
Phenol	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	108-95-2	
Pyrene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1	02/20/14 13:00	02/28/14 04:17	120-82-1	
2,4,6-Trichlorophenol	ND ug/L		10.0	1	02/20/14 13:00	02/28/14 04:17	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	42 %		10-120	1	02/20/14 13:00	02/28/14 04:17	4165-60-0	
2-Fluorobiphenyl (S)	44 %		15-120	1	02/20/14 13:00	02/28/14 04:17	321-60-8	
Terphenyl-d14 (S)	79 %		11-131	1	02/20/14 13:00	02/28/14 04:17	1718-51-0	
Phenol-d6 (S)	17 %		10-120	1	02/20/14 13:00	02/28/14 04:17	13127-88-3	
2-Fluorophenol (S)	26 %		10-120	1	02/20/14 13:00	02/28/14 04:17	367-12-4	
2,4,6-Tribromophenol (S)	58 %		10-137	1	02/20/14 13:00	02/28/14 04:17	118-79-6	
<b>Tentatively Identified Compounds</b>								
Tetrachloroethylene	5.1 ug/L			1	02/20/14 13:00	02/28/14 04:17	127-18-4	N
<b>6200B MSV</b>		Analytical Method: SM 6200B						
Benzene	ND ug/L		0.50	1		02/26/14 22:05	71-43-2	
Bromobenzene	ND ug/L		0.50	1		02/26/14 22:05	108-86-1	
Bromochloromethane	ND ug/L		0.50	1		02/26/14 22:05	74-97-5	
Bromodichloromethane	ND ug/L		0.50	1		02/26/14 22:05	75-27-4	
Bromoform	ND ug/L		0.50	1		02/26/14 22:05	75-25-2	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

Sample: DUPLICATE-2	Lab ID: 92190355005	Collected: 02/19/14 00:00	Received: 02/20/14 09:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
Bromomethane	ND ug/L		5.0	1		02/26/14 22:05	74-83-9	
n-Butylbenzene	ND ug/L		0.50	1		02/26/14 22:05	104-51-8	
sec-Butylbenzene	ND ug/L		0.50	1		02/26/14 22:05	135-98-8	
tert-Butylbenzene	ND ug/L		0.50	1		02/26/14 22:05	98-06-6	
Carbon tetrachloride	ND ug/L		0.50	1		02/26/14 22:05	56-23-5	
Chlorobenzene	ND ug/L		0.50	1		02/26/14 22:05	108-90-7	
Chloroethane	ND ug/L		1.0	1		02/26/14 22:05	75-00-3	
Chloroform	ND ug/L		0.50	1		02/26/14 22:05	67-66-3	
Chloromethane	ND ug/L		1.0	1		02/26/14 22:05	74-87-3	
2-Chlorotoluene	ND ug/L		0.50	1		02/26/14 22:05	95-49-8	
4-Chlorotoluene	ND ug/L		0.50	1		02/26/14 22:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/L		1.0	1		02/26/14 22:05	96-12-8	
Dibromochloromethane	ND ug/L		0.50	1		02/26/14 22:05	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		0.50	1		02/26/14 22:05	106-93-4	
Dibromomethane	ND ug/L		0.50	1		02/26/14 22:05	74-95-3	
1,2-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 22:05	95-50-1	
1,3-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 22:05	541-73-1	
1,4-Dichlorobenzene	ND ug/L		0.50	1		02/26/14 22:05	106-46-7	
Dichlorodifluoromethane	ND ug/L		0.50	1		02/26/14 22:05	75-71-8	
1,1-Dichloroethane	ND ug/L		0.50	1		02/26/14 22:05	75-34-3	
1,2-Dichloroethane	ND ug/L		0.50	1		02/26/14 22:05	107-06-2	
1,1-Dichloroethene	ND ug/L		0.50	1		02/26/14 22:05	75-35-4	
cis-1,2-Dichloroethene	<b>8.9</b> ug/L		0.50	1		02/26/14 22:05	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		0.50	1		02/26/14 22:05	156-60-5	
1,2-Dichloropropane	ND ug/L		0.50	1		02/26/14 22:05	78-87-5	
1,3-Dichloropropane	ND ug/L		0.50	1		02/26/14 22:05	142-28-9	
2,2-Dichloropropane	ND ug/L		0.50	1		02/26/14 22:05	594-20-7	
1,1-Dichloropropene	ND ug/L		0.50	1		02/26/14 22:05	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		0.50	1		02/26/14 22:05	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		0.50	1		02/26/14 22:05	10061-02-6	
Diisopropyl ether	ND ug/L		0.50	1		02/26/14 22:05	108-20-3	
Ethanol	ND ug/L		200	1		02/26/14 22:05	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		02/26/14 22:05	100-41-4	
Hexachloro-1,3-butadiene	ND ug/L		2.0	1		02/26/14 22:05	87-68-3	
Isopropylbenzene (Cumene)	ND ug/L		0.50	1		02/26/14 22:05	98-82-8	
Methylene Chloride	ND ug/L		2.0	1		02/26/14 22:05	75-09-2	
Methyl-tert-butyl ether	<b>1.4</b> ug/L		0.50	1		02/26/14 22:05	1634-04-4	
Naphthalene	ND ug/L		2.0	1		02/26/14 22:05	91-20-3	
n-Propylbenzene	ND ug/L		0.50	1		02/26/14 22:05	103-65-1	
Styrene	ND ug/L		0.50	1		02/26/14 22:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		0.50	1		02/26/14 22:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		0.50	1		02/26/14 22:05	79-34-5	
Tetrachloroethene	<b>28.1</b> ug/L		0.50	1		02/26/14 22:05	127-18-4	
Toluene	ND ug/L		0.50	1		02/26/14 22:05	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		2.0	1		02/26/14 22:05	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		2.0	1		02/26/14 22:05	120-82-1	
1,1,1-Trichloroethane	ND ug/L		0.50	1		02/26/14 22:05	71-55-6	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: DUPLICATE-2		Lab ID: 92190355005	Collected: 02/19/14 00:00	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6200B MSV</b>		Analytical Method: SM 6200B						
1,1,2-Trichloroethane	ND	ug/L	0.50	1		02/26/14 22:05	79-00-5	
Trichloroethene	8.6	ug/L	0.50	1		02/26/14 22:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/26/14 22:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	0.50	1		02/26/14 22:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	1		02/26/14 22:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	1		02/26/14 22:05	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		02/26/14 22:05	75-01-4	
m&p-Xylene	ND	ug/L	1.0	1		02/26/14 22:05	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		02/26/14 22:05	95-47-6	
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102 %		70-130	1		02/26/14 22:05	17060-07-0	
4-Bromofluorobenzene (S)	96 %		70-130	1		02/26/14 22:05	460-00-4	
Toluene-d8 (S)	101 %		70-130	1		02/26/14 22:05	2037-26-5	
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/L	25.0	1		02/22/14 03:26	67-64-1	
Benzene	ND	ug/L	1.0	1		02/22/14 03:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		02/22/14 03:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		02/22/14 03:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		02/22/14 03:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/22/14 03:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		02/22/14 03:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		02/22/14 03:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		02/22/14 03:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/22/14 03:26	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/22/14 03:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/22/14 03:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		02/22/14 03:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		02/22/14 03:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		02/22/14 03:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		02/22/14 03:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/22/14 03:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		02/22/14 03:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		02/22/14 03:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/22/14 03:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/22/14 03:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		02/22/14 03:26	75-35-4	
cis-1,2-Dichloroethene	7.2	ug/L	1.0	1		02/22/14 03:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/22/14 03:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/22/14 03:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		02/22/14 03:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		02/22/14 03:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:26	563-58-6	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: DUPLICATE-2		Lab ID: 92190355005	Collected: 02/19/14 00:00	Received: 02/20/14 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 8260						
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/22/14 03:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		02/22/14 03:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		02/22/14 03:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		02/22/14 03:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		02/22/14 03:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/22/14 03:26	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		02/22/14 03:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		02/22/14 03:26	108-10-1	
Methyl-tert-butyl ether	1.1	ug/L	1.0	1		02/22/14 03:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		02/22/14 03:26	91-20-3	
Styrene	ND	ug/L	1.0	1		02/22/14 03:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		02/22/14 03:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/22/14 03:26	79-34-5	
Tetrachloroethene	29.5	ug/L	1.0	1		02/22/14 03:26	127-18-4	
Toluene	ND	ug/L	1.0	1		02/22/14 03:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		02/22/14 03:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/22/14 03:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/22/14 03:26	79-00-5	
Trichloroethene	8.7	ug/L	1.0	1		02/22/14 03:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		02/22/14 03:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		02/22/14 03:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		02/22/14 03:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		02/22/14 03:26	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		02/22/14 03:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/22/14 03:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/22/14 03:26	95-47-6	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98 %		70-130	1		02/22/14 03:26	460-00-4	
1,2-Dichloroethane-d4 (S)	94 %		70-130	1		02/22/14 03:26	17060-07-0	
Toluene-d8 (S)	97 %		70-130	1		02/22/14 03:26	2037-26-5	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-02 8'**      **Lab ID: 92190355006**      Collected: 02/18/14 16:20      Received: 02/20/14 09:30      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	<b>559</b>	mg/kg	11.3	2	02/22/14 11:00	02/24/14 14:54	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	90 %		41-119	2	02/22/14 11:00	02/24/14 14:54	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	<b>202</b>	mg/kg	90.7	8	02/24/14 15:58	02/26/14 17:16		N2
Aliphatic (C19-C36)	ND	mg/kg	90.7	8	02/24/14 15:58	02/26/14 17:16		N2
Aromatic (C11-C22)	<b>90.0</b>	mg/kg	11.3	1	02/24/14 15:58	02/26/14 01:39		N2
<b>Surrogates</b>								
Nonatriacontane (S)	0 %		40-140	8	02/24/14 15:58	02/26/14 17:16	7194-86-7	S4
o-Terphenyl (S)	81 %		40-140	1	02/24/14 15:58	02/26/14 01:39	84-15-1	
2-Fluorobiphenyl (S)	101 %		40-140	1	02/24/14 15:58	02/26/14 01:39	321-60-8	
2-Bromonaphthalene (S)	136 %		40-140	1	02/24/14 15:58	02/26/14 01:39	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	<b>3760</b>	mg/kg	97.6	20	02/28/14 02:49	02/28/14 21:36	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	114 %		70-167	20	02/28/14 02:49	02/28/14 21:36	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	<b>280</b>	mg/kg	31.4	10	03/06/14 17:00	03/07/14 12:13		N2
Aliphatic (C09-C12)	<b>1260</b>	mg/kg	31.4	10	03/06/14 17:00	03/07/14 12:13		N2
Aromatic (C09-C10)	<b>743</b>	mg/kg	31.4	10	03/06/14 17:00	03/07/14 12:13		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	227 %		70-130	10	03/06/14 17:00	03/07/14 12:13	460-00-4	S1
4-Bromofluorobenzene (PID) (S)	244 %		70-130	10	03/06/14 17:00	03/07/14 12:13	460-00-4	S1
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>5.5</b>	mg/kg	0.44	1	02/26/14 13:05	02/27/14 02:45	7440-47-3	
Lead	<b>34.8</b>	mg/kg	0.44	1	02/26/14 13:05	02/27/14 02:45	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	83-32-9	
Acenaphthylene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	208-96-8	
Aniline	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	62-53-3	
Anthracene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	120-12-7	
Benzo(a)anthracene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	56-55-3	
Benzo(a)pyrene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	207-08-9	
Benzoic Acid	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	65-85-0	
Benzyl alcohol	ND	ug/kg	7480	10	02/20/14 16:05	02/26/14 19:45	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	101-55-3	
Butylbenzylphthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	7480	10	02/20/14 16:05	02/26/14 19:45	59-50-7	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Sample: B-07-02 8' Lab ID: 92190355006 Collected: 02/18/14 16:20 Received: 02/20/14 09:30 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	108-60-1	
2-Chloronaphthalene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	91-58-7	
2-Chlorophenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	7005-72-3	
Chrysene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	53-70-3	
Dibenzofuran	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	120-83-2	
Diethylphthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	105-67-9	
Dimethylphthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	131-11-3	
Di-n-butylphthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	7480	10	02/20/14 16:05	02/26/14 19:45	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	606-20-2	
Di-n-octylphthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	117-81-7	
Fluoranthene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	206-44-0	
Fluorene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	87-68-3	
Hexachlorobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	77-47-4	
Hexachloroethane	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	193-39-5	
Isophorone	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	78-59-1	
1-Methylnaphthalene	8220	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	90-12-0	
2-Methylnaphthalene	15100	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45		
Naphthalene	23800	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	91-20-3	
2-Nitroaniline	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	88-74-4	
3-Nitroaniline	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	99-09-2	
4-Nitroaniline	ND	ug/kg	7480	10	02/20/14 16:05	02/26/14 19:45	100-01-6	
Nitrobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	98-95-3	
2-Nitrophenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	88-75-5	
4-Nitrophenol	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-02 8'**      **Lab ID: 92190355006**      Collected: 02/18/14 16:20      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	86-30-6	
Pentachlorophenol	ND	ug/kg	18700	10	02/20/14 16:05	02/26/14 19:45	87-86-5	
Phenanthrene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	85-01-8	
Phenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	108-95-2	
Pyrene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	3740	10	02/20/14 16:05	02/26/14 19:45	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	0 %		23-110	10	02/20/14 16:05	02/26/14 19:45	4165-60-0	D3,S4
2-Fluorobiphenyl (S)	0 %		30-110	10	02/20/14 16:05	02/26/14 19:45	321-60-8	
Terphenyl-d14 (S)	0 %		28-110	10	02/20/14 16:05	02/26/14 19:45	1718-51-0	
Phenol-d6 (S)	0 %		22-110	10	02/20/14 16:05	02/26/14 19:45	13127-88-3	
2-Fluorophenol (S)	0 %		13-110	10	02/20/14 16:05	02/26/14 19:45	367-12-4	
2,4,6-Tribromophenol (S)	0 %		27-110	10	02/20/14 16:05	02/26/14 19:45	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	106000	1000		02/21/14 19:24	67-64-1	
Benzene	ND	ug/kg	5290	1000		02/21/14 19:24	71-43-2	
Bromobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	108-86-1	
Bromochloromethane	ND	ug/kg	5290	1000		02/21/14 19:24	74-97-5	
Bromodichloromethane	ND	ug/kg	5290	1000		02/21/14 19:24	75-27-4	
Bromoform	ND	ug/kg	5290	1000		02/21/14 19:24	75-25-2	
Bromomethane	ND	ug/kg	10600	1000		02/21/14 19:24	74-83-9	
2-Butanone (MEK)	ND	ug/kg	106000	1000		02/21/14 19:24	78-93-3	
n-Butylbenzene	<b>30500</b>	ug/kg	5290	1000		02/21/14 19:24	104-51-8	
sec-Butylbenzene	ND	ug/kg	5290	1000		02/21/14 19:24	135-98-8	
tert-Butylbenzene	ND	ug/kg	5290	1000		02/21/14 19:24	98-06-6	
Carbon tetrachloride	ND	ug/kg	5290	1000		02/21/14 19:24	56-23-5	
Chlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	108-90-7	
Chloroethane	ND	ug/kg	10600	1000		02/21/14 19:24	75-00-3	
Chloroform	ND	ug/kg	5290	1000		02/21/14 19:24	67-66-3	
Chloromethane	ND	ug/kg	10600	1000		02/21/14 19:24	74-87-3	
2-Chlorotoluene	ND	ug/kg	5290	1000		02/21/14 19:24	95-49-8	
4-Chlorotoluene	ND	ug/kg	5290	1000		02/21/14 19:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5290	1000		02/21/14 19:24	96-12-8	
Dibromochloromethane	ND	ug/kg	5290	1000		02/21/14 19:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5290	1000		02/21/14 19:24	106-93-4	
Dibromomethane	ND	ug/kg	5290	1000		02/21/14 19:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10600	1000		02/21/14 19:24	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5290	1000		02/21/14 19:24	75-35-4	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-02 8'**      **Lab ID: 92190355006**      Collected: 02/18/14 16:20      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	5290	1000		02/21/14 19:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5290	1000		02/21/14 19:24	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5290	1000		02/21/14 19:24	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5290	1000		02/21/14 19:24	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5290	1000		02/21/14 19:24	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5290	1000		02/21/14 19:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5290	1000		02/21/14 19:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5290	1000		02/21/14 19:24	10061-02-6	
Diisopropyl ether	ND	ug/kg	5290	1000		02/21/14 19:24	108-20-3	
Ethylbenzene	<b>81300</b>	ug/kg	5290	1000		02/21/14 19:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5290	1000		02/21/14 19:24	87-68-3	
2-Hexanone	ND	ug/kg	52900	1000		02/21/14 19:24	591-78-6	
Isopropylbenzene (Cumene)	<b>30700</b>	ug/kg	5290	1000		02/21/14 19:24	98-82-8	
p-Isopropyltoluene	<b>22000</b>	ug/kg	5290	1000		02/21/14 19:24	99-87-6	
Methylene Chloride	ND	ug/kg	21100	1000		02/21/14 19:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52900	1000		02/21/14 19:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5290	1000		02/21/14 19:24	1634-04-4	
Naphthalene	<b>41300</b>	ug/kg	5290	1000		02/21/14 19:24	91-20-3	
n-Propylbenzene	<b>68000</b>	ug/kg	5290	1000		02/21/14 19:24	103-65-1	
Styrene	ND	ug/kg	5290	1000		02/21/14 19:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	79-34-5	
Tetrachloroethene	ND	ug/kg	5290	1000		02/21/14 19:24	127-18-4	
Toluene	<b>36700</b>	ug/kg	5290	1000		02/21/14 19:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5290	1000		02/21/14 19:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5290	1000		02/21/14 19:24	79-00-5	
Trichloroethene	ND	ug/kg	5290	1000		02/21/14 19:24	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5290	1000		02/21/14 19:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5290	1000		02/21/14 19:24	96-18-4	
1,2,4-Trimethylbenzene	<b>329000</b>	ug/kg	26400	5000		02/24/14 18:12	95-63-6	
1,3,5-Trimethylbenzene	<b>109000</b>	ug/kg	5290	1000		02/21/14 19:24	108-67-8	
Vinyl acetate	ND	ug/kg	52900	1000		02/21/14 19:24	108-05-4	
Vinyl chloride	ND	ug/kg	10600	1000		02/21/14 19:24	75-01-4	
Xylene (Total)	<b>285000</b>	ug/kg	10600	1000		02/21/14 19:24	1330-20-7	
m&p-Xylene	<b>196000</b>	ug/kg	10600	1000		02/21/14 19:24	179601-23-1	
o-Xylene	<b>89600</b>	ug/kg	5290	1000		02/21/14 19:24	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	103	%	70-130	1000		02/21/14 19:24	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130	1000		02/21/14 19:24	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132	1000		02/21/14 19:24	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **11.8** %      0.10      1      03/03/14 11:58

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-06 10'**      **Lab ID: 92190355007**      Collected: 02/18/14 16:10      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.9	1	02/22/14 11:00	02/24/14 10:30	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	84	%	41-119	1	02/22/14 11:00	02/24/14 10:30	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.8	1	02/24/14 15:58	02/26/14 02:11		N2
Aliphatic (C19-C36)	ND	mg/kg	11.8	1	02/24/14 15:58	02/26/14 02:11		N2
Aromatic (C11-C22)	ND	mg/kg	11.8	1	02/24/14 15:58	02/26/14 02:11		N2
<b>Surrogates</b>								
Nonatriacontane (S)	72	%	40-140	1	02/24/14 15:58	02/26/14 02:11	7194-86-7	
o-Terphenyl (S)	79	%	40-140	1	02/24/14 15:58	02/26/14 02:11	84-15-1	
2-Fluorobiphenyl (S)	73	%	40-140	1	02/24/14 15:58	02/26/14 02:11	321-60-8	
2-Bromonaphthalene (S)	81	%	40-140	1	02/24/14 15:58	02/26/14 02:11	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	10.3	mg/kg	6.2	1	02/28/14 02:49	02/28/14 21:13	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%	70-167	1	02/28/14 02:49	02/28/14 21:13	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.4	1	03/06/14 17:00	03/07/14 13:22		N2
Aliphatic (C09-C12)	ND	mg/kg	3.4	1	03/06/14 17:00	03/07/14 13:22		N2
Aromatic (C09-C10)	ND	mg/kg	3.4	1	03/06/14 17:00	03/07/14 13:22		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	219	%	70-130	1	03/06/14 17:00	03/07/14 13:22	460-00-4	S1
4-Bromofluorobenzene (PID) (S)	204	%	70-130	1	03/06/14 17:00	03/07/14 13:22	460-00-4	S1
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	5.4	mg/kg	0.57	1	02/26/14 13:05	02/27/14 02:48	7440-47-3	
Lead	9.0	mg/kg	0.57	1	02/26/14 13:05	02/27/14 02:48	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	83-32-9	
Acenaphthylene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	208-96-8	
Aniline	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	62-53-3	
Anthracene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	120-12-7	
Benzo(a)anthracene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	56-55-3	
Benzo(a)pyrene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	207-08-9	
Benzoic Acid	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	65-85-0	
Benzyl alcohol	ND	ug/kg	780	1	02/20/14 16:05	02/26/14 20:12	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	101-55-3	
Butylbenzylphthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	780	1	02/20/14 16:05	02/26/14 20:12	59-50-7	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-06 10'**      **Lab ID: 92190355007**      Collected: 02/18/14 16:10      Received: 02/20/14 09:30      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	108-60-1	
2-Chloronaphthalene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	91-58-7	
2-Chlorophenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	7005-72-3	
Chrysene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	53-70-3	
Dibenzofuran	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	120-83-2	
Diethylphthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	105-67-9	
Dimethylphthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	131-11-3	
Di-n-butylphthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	780	1	02/20/14 16:05	02/26/14 20:12	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	606-20-2	
Di-n-octylphthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	117-81-7	
Fluoranthene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	206-44-0	
Fluorene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	87-68-3	
Hexachlorobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	77-47-4	
Hexachloroethane	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	193-39-5	
Isophorone	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	78-59-1	
1-Methylnaphthalene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	90-12-0	
2-Methylnaphthalene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12		
Naphthalene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	91-20-3	
2-Nitroaniline	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	88-74-4	
3-Nitroaniline	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	99-09-2	
4-Nitroaniline	ND	ug/kg	780	1	02/20/14 16:05	02/26/14 20:12	100-01-6	
Nitrobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	98-95-3	
2-Nitrophenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	88-75-5	
4-Nitrophenol	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	621-64-7	

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-06 10'**      **Lab ID: 92190355007**      Collected: 02/18/14 16:10      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	86-30-6	
Pentachlorophenol	ND	ug/kg	1950	1	02/20/14 16:05	02/26/14 20:12	87-86-5	
Phenanthrene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	85-01-8	
Phenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	108-95-2	
Pyrene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	390	1	02/20/14 16:05	02/26/14 20:12	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	68 %		23-110	1	02/20/14 16:05	02/26/14 20:12	4165-60-0	
2-Fluorobiphenyl (S)	63 %		30-110	1	02/20/14 16:05	02/26/14 20:12	321-60-8	
Terphenyl-d14 (S)	54 %		28-110	1	02/20/14 16:05	02/26/14 20:12	1718-51-0	
Phenol-d6 (S)	74 %		22-110	1	02/20/14 16:05	02/26/14 20:12	13127-88-3	
2-Fluorophenol (S)	70 %		13-110	1	02/20/14 16:05	02/26/14 20:12	367-12-4	
2,4,6-Tribromophenol (S)	84 %		27-110	1	02/20/14 16:05	02/26/14 20:12	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	2280	25		02/21/14 19:43	67-64-1	
Benzene	ND	ug/kg	114	25		02/21/14 19:43	71-43-2	
Bromobenzene	ND	ug/kg	114	25		02/21/14 19:43	108-86-1	
Bromochloromethane	ND	ug/kg	114	25		02/21/14 19:43	74-97-5	
Bromodichloromethane	ND	ug/kg	114	25		02/21/14 19:43	75-27-4	
Bromoform	ND	ug/kg	114	25		02/21/14 19:43	75-25-2	
Bromomethane	ND	ug/kg	228	25		02/21/14 19:43	74-83-9	
2-Butanone (MEK)	ND	ug/kg	2280	25		02/21/14 19:43	78-93-3	
n-Butylbenzene	ND	ug/kg	114	25		02/21/14 19:43	104-51-8	
sec-Butylbenzene	ND	ug/kg	114	25		02/21/14 19:43	135-98-8	
tert-Butylbenzene	ND	ug/kg	114	25		02/21/14 19:43	98-06-6	
Carbon tetrachloride	ND	ug/kg	114	25		02/21/14 19:43	56-23-5	
Chlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	108-90-7	
Chloroethane	ND	ug/kg	228	25		02/21/14 19:43	75-00-3	
Chloroform	ND	ug/kg	114	25		02/21/14 19:43	67-66-3	
Chloromethane	ND	ug/kg	228	25		02/21/14 19:43	74-87-3	
2-Chlorotoluene	ND	ug/kg	114	25		02/21/14 19:43	95-49-8	
4-Chlorotoluene	ND	ug/kg	114	25		02/21/14 19:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	114	25		02/21/14 19:43	96-12-8	
Dibromochloromethane	ND	ug/kg	114	25		02/21/14 19:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	114	25		02/21/14 19:43	106-93-4	
Dibromomethane	ND	ug/kg	114	25		02/21/14 19:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	228	25		02/21/14 19:43	75-71-8	D3
1,1-Dichloroethane	ND	ug/kg	114	25		02/21/14 19:43	75-34-3	
1,2-Dichloroethane	ND	ug/kg	114	25		02/21/14 19:43	107-06-2	
1,1-Dichloroethene	ND	ug/kg	114	25		02/21/14 19:43	75-35-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

**Sample: B-07-06 10'**      **Lab ID: 92190355007**      Collected: 02/18/14 16:10      Received: 02/20/14 09:30      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	114	25		02/21/14 19:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	114	25		02/21/14 19:43	156-60-5	
1,2-Dichloropropane	ND	ug/kg	114	25		02/21/14 19:43	78-87-5	
1,3-Dichloropropane	ND	ug/kg	114	25		02/21/14 19:43	142-28-9	
2,2-Dichloropropane	ND	ug/kg	114	25		02/21/14 19:43	594-20-7	
1,1-Dichloropropene	ND	ug/kg	114	25		02/21/14 19:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	114	25		02/21/14 19:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	114	25		02/21/14 19:43	10061-02-6	
Diisopropyl ether	ND	ug/kg	114	25		02/21/14 19:43	108-20-3	
Ethylbenzene	ND	ug/kg	114	25		02/21/14 19:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	114	25		02/21/14 19:43	87-68-3	
2-Hexanone	ND	ug/kg	1140	25		02/21/14 19:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	114	25		02/21/14 19:43	98-82-8	
p-Isopropyltoluene	ND	ug/kg	114	25		02/21/14 19:43	99-87-6	
Methylene Chloride	ND	ug/kg	456	25		02/21/14 19:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1140	25		02/21/14 19:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	114	25		02/21/14 19:43	1634-04-4	
Naphthalene	ND	ug/kg	114	25		02/21/14 19:43	91-20-3	
n-Propylbenzene	119	ug/kg	114	25		02/21/14 19:43	103-65-1	
Styrene	ND	ug/kg	114	25		02/21/14 19:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	114	25		02/21/14 19:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	114	25		02/21/14 19:43	79-34-5	
Tetrachloroethene	ND	ug/kg	114	25		02/21/14 19:43	127-18-4	
Toluene	ND	ug/kg	114	25		02/21/14 19:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	114	25		02/21/14 19:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	114	25		02/21/14 19:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	114	25		02/21/14 19:43	79-00-5	
Trichloroethene	ND	ug/kg	114	25		02/21/14 19:43	79-01-6	
Trichlorofluoromethane	ND	ug/kg	114	25		02/21/14 19:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	114	25		02/21/14 19:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	114	25		02/21/14 19:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	114	25		02/21/14 19:43	108-67-8	
Vinyl acetate	ND	ug/kg	1140	25		02/21/14 19:43	108-05-4	
Vinyl chloride	ND	ug/kg	228	25		02/21/14 19:43	75-01-4	
Xylene (Total)	ND	ug/kg	228	25		02/21/14 19:43	1330-20-7	
m&p-Xylene	ND	ug/kg	228	25		02/21/14 19:43	179601-23-1	
o-Xylene	ND	ug/kg	114	25		02/21/14 19:43	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	25		02/21/14 19:43	2037-26-5	
4-Bromofluorobenzene (S)	90 %		70-130	25		02/21/14 19:43	460-00-4	
1,2-Dichloroethane-d4 (S)	76 %		70-132	25		02/21/14 19:43	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **15.4 %**      0.10      1      03/03/14 11:58

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: GCSV/12153 Analysis Method: EPA 8015 - Alcohol-Glycol

QC Batch Method: EPA 8015 - Alcohol-Glycol Analysis Description: EPA 8015 Modified

Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1052253

Matrix: Water

Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylene glycol	mg/L	ND	10.0	02/26/14 12:29	

LABORATORY CONTROL SAMPLE: 1052254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylene glycol	mg/L	250	218	87	79-129	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1052255 1052256

Parameter	Units	60163155001		MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Ethylene glycol	mg/L	ND	250	250	284	261	112	103	67-133	8				

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch:	GCV/7826	Analysis Method:	EPA 8015 Modified
QC Batch Method:	EPA 5035A/5030B	Analysis Description:	Gasoline Range Organics
Associated Lab Samples:	92190355001, 92190355002		

METHOD BLANK: 1142278 Matrix: Solid

Associated Lab Samples: 92190355001, 92190355002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	02/21/14 12:12	
4-Bromofluorobenzene (S)	%	96	70-167	02/21/14 12:12	

LABORATORY CONTROL SAMPLE: 1142279

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	49.8	55.4	111	70-165	
4-Bromofluorobenzene (S)	%			105	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1142280 1142281

Parameter	Units	92190355001		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Gasoline Range Organics	mg/kg	24.0	44.5	44.5	77.8	89.0	121	146	47-187	13		
4-Bromofluorobenzene (S)	%						130	122	70-167			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1142282 1142283

Parameter	Units	92190355002		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Gasoline Range Organics	mg/kg	36.8	40	40	91.6	95.6	137	147	47-187	4		
4-Bromofluorobenzene (S)	%						161	162	70-167			

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

QC Batch: GCV/7833 Analysis Method: EPA 8015 Modified  
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics  
Associated Lab Samples: 92190355006, 92190355007

METHOD BLANK: 1148112 Matrix: Solid  
Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	02/28/14 15:21	
4-Bromofluorobenzene (S)	%	101	70-167	02/28/14 15:21	

LABORATORY CONTROL SAMPLE: 1148113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	50	48.9	98	70-165	
4-Bromofluorobenzene (S)	%			98	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1148114 1148115

Parameter	Units	92190992004 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result	% Rec	% Rec					
Gasoline Range Organics	mg/kg	ND	48.6	51.6	48.6	53.5	106	110	47-187	3			
4-Bromofluorobenzene (S)	%						100	96	70-167				

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: GCV/7860 Analysis Method: MADEP VPH

QC Batch Method: MADEP VPH Analysis Description: VPH NC Soil

Associated Lab Samples: 92190355006, 92190355007

METHOD BLANK: 1152103 Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.5	03/06/14 19:42	N2
Aliphatic (C09-C12)	mg/kg	ND	2.5	03/06/14 19:42	N2
Aromatic (C09-C10)	mg/kg	ND	2.5	03/06/14 19:42	N2
4-Bromofluorobenzene (FID) (S)	%	121	70-130	03/06/14 19:42	
4-Bromofluorobenzene (PID) (S)	%	108	70-130	03/06/14 19:42	

LABORATORY CONTROL SAMPLE & LCSD: 1152104

1152105

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	mg/kg	7.5	6.6	6.4	88	85	70-130	4	25	N2
Aliphatic (C09-C12)	mg/kg	7.5	4.3	4.1	57	55	30-130	4	25	N2
Aromatic (C09-C10)	mg/kg	2.5	ND	ND	92	87	70-130		25	N2
4-Bromofluorobenzene (FID) (S)	%				75	72	70-130			
4-Bromofluorobenzene (PID) (S)	%				81	77	70-130			

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: GCV/7835 Analysis Method: MADEP VPH  
 QC Batch Method: MADEP VPH Analysis Description: VPH NC Water  
 Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1148658 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	ug/L	ND	50.0	03/01/14 20:36	N2
Aliphatic (C09-C12)	ug/L	ND	50.0	03/01/14 20:36	N2
Aromatic (C09-C10)	ug/L	ND	50.0	03/01/14 20:36	N2
4-Bromofluorobenzene (FID) (S)	%	92	70-130	03/01/14 20:36	
4-Bromofluorobenzene (PID) (S)	%	91	70-130	03/01/14 20:36	

LABORATORY CONTROL SAMPLE & LCSD: 1148659

1148660

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	ug/L	300	272	261	91	87	70-130	4	25	N2
Aliphatic (C09-C12)	ug/L	300	316	297	105	99	30-130	6	25	N2
Aromatic (C09-C10)	ug/L	100	108	105	108	105	70-130	3	25	N2
4-Bromofluorobenzene (FID) (S)	%				103	101	70-130			
4-Bromofluorobenzene (PID) (S)	%				103	102	70-130			

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch:	MPRP/15312	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	92190355006, 92190355007		

METHOD BLANK: 1145621 Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/kg	ND	0.50	02/27/14 01:27	
Lead	mg/kg	ND	0.50	02/27/14 01:27	

LABORATORY CONTROL SAMPLE: 1145622

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	mg/kg	50	50.7	101	80-120	
Lead	mg/kg	50	51.5	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1145623 1145624

Parameter	Units	92190738001 Result	MS		MSD		% Rec		% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec			
Chromium	mg/kg	2.85 ug/g	43.1	46.3	46.0	49.7	100	101	75-125	8	
Lead	mg/kg	0.905 ug/g	43.1	46.3	46.3	48.2	105	102	75-125	4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: MPRP/15285 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET  
 Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1142293 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	ug/L	ND	5.0	02/21/14 20:58	
Lead	ug/L	ND	5.0	02/21/14 20:58	

LABORATORY CONTROL SAMPLE: 1142294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	500	509	102	80-120	
Lead	ug/L	500	501	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1142295 1142296

Parameter	Units	92190489009		MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec						
Chromium	ug/L	28.9	500	500	523	523	99	99	75-125	0				
Lead	ug/L	20.4	500	500	468	469	90	90	75-125	0				

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: MSV/25905 Analysis Method: SM 6200B  
QC Batch Method: SM 6200B Analysis Description: 6200B MSV  
Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1145841 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,1-Trichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1,2-Trichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
1,1-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	02/26/14 18:47	
1,2,3-Trichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,2,4-Trichlorobenzene	ug/L	ND	2.0	02/26/14 18:47	
1,2,4-Trimethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dibromo-3-chloropropane	ug/L	ND	1.0	02/26/14 18:47	
1,2-Dibromoethane (EDB)	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichloroethane	ug/L	ND	0.50	02/26/14 18:47	
1,2-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,3,5-Trimethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
1,3-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
1,3-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
1,4-Dichlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
2,2-Dichloropropane	ug/L	ND	0.50	02/26/14 18:47	
2-Chlorotoluene	ug/L	ND	0.50	02/26/14 18:47	
4-Chlorotoluene	ug/L	ND	0.50	02/26/14 18:47	
Benzene	ug/L	ND	0.50	02/26/14 18:47	
Bromobenzene	ug/L	ND	0.50	02/26/14 18:47	
Bromochloromethane	ug/L	ND	0.50	02/26/14 18:47	
Bromodichloromethane	ug/L	ND	0.50	02/26/14 18:47	
Bromoform	ug/L	ND	0.50	02/26/14 18:47	
Bromomethane	ug/L	ND	5.0	02/26/14 18:47	
Carbon tetrachloride	ug/L	ND	0.50	02/26/14 18:47	
Chlorobenzene	ug/L	ND	0.50	02/26/14 18:47	
Chloroethane	ug/L	ND	1.0	02/26/14 18:47	
Chloroform	ug/L	ND	0.50	02/26/14 18:47	
Chloromethane	ug/L	ND	1.0	02/26/14 18:47	
cis-1,2-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
cis-1,3-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
Dibromochloromethane	ug/L	ND	0.50	02/26/14 18:47	
Dibromomethane	ug/L	ND	0.50	02/26/14 18:47	
Dichlorodifluoromethane	ug/L	ND	0.50	02/26/14 18:47	
Diisopropyl ether	ug/L	ND	0.50	02/26/14 18:47	
Ethanol	ug/L	ND	200	02/26/14 18:47	
Ethylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	02/26/14 18:47	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

METHOD BLANK: 1145841

Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	0.50	02/26/14 18:47	
m&p-Xylene	ug/L	ND	1.0	02/26/14 18:47	
Methyl-tert-butyl ether	ug/L	ND	0.50	02/26/14 18:47	
Methylene Chloride	ug/L	ND	2.0	02/26/14 18:47	
n-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
n-Propylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Naphthalene	ug/L	ND	2.0	02/26/14 18:47	
o-Xylene	ug/L	ND	0.50	02/26/14 18:47	
sec-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Styrene	ug/L	ND	0.50	02/26/14 18:47	
tert-Butylbenzene	ug/L	ND	0.50	02/26/14 18:47	
Tetrachloroethene	ug/L	ND	0.50	02/26/14 18:47	
Toluene	ug/L	ND	0.50	02/26/14 18:47	
trans-1,2-Dichloroethene	ug/L	ND	0.50	02/26/14 18:47	
trans-1,3-Dichloropropene	ug/L	ND	0.50	02/26/14 18:47	
Trichloroethene	ug/L	ND	0.50	02/26/14 18:47	
Trichlorofluoromethane	ug/L	ND	1.0	02/26/14 18:47	
Vinyl chloride	ug/L	ND	1.0	02/26/14 18:47	
1,2-Dichloroethane-d4 (S)	%	101	70-130	02/26/14 18:47	
4-Bromofluorobenzene (S)	%	98	70-130	02/26/14 18:47	
Toluene-d8 (S)	%	101	70-130	02/26/14 18:47	

LABORATORY CONTROL SAMPLE: 1145842

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.0	98	60-140	
1,1,1-Trichloroethane	ug/L	50	53.7	107	60-140	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	60-140	
1,1,2-Trichloroethane	ug/L	50	52.9	106	60-140	
1,1-Dichloroethane	ug/L	50	49.2	98	60-140	
1,1-Dichloroethene	ug/L	50	48.0	96	60-140	
1,1-Dichloropropene	ug/L	50	51.3	103	60-140	
1,2,3-Trichlorobenzene	ug/L	50	49.1	98	60-140	
1,2,3-Trichloropropane	ug/L	50	49.8	100	60-140	
1,2,4-Trichlorobenzene	ug/L	50	49.1	98	60-140	
1,2,4-Trimethylbenzene	ug/L	50	51.4	103	60-140	
1,2-Dibromo-3-chloropropane	ug/L	50	64.7	129	60-140	
1,2-Dibromoethane (EDB)	ug/L	50	52.8	106	60-140	
1,2-Dichlorobenzene	ug/L	50	48.3	97	60-140	
1,2-Dichloroethane	ug/L	50	47.9	96	60-140	
1,2-Dichloropropane	ug/L	50	50.1	100	60-140	
1,3,5-Trimethylbenzene	ug/L	50	52.4	105	60-140	
1,3-Dichlorobenzene	ug/L	50	47.3	95	60-140	
1,3-Dichloropropane	ug/L	50	51.3	103	60-140	
1,4-Dichlorobenzene	ug/L	50	47.7	95	60-140	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1145842

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	55.4	111	60-140	
2-Chlorotoluene	ug/L	50	48.4	97	60-140	
4-Chlorotoluene	ug/L	50	49.8	100	60-140	
Benzene	ug/L	50	52.3	105	60-140	
Bromobenzene	ug/L	50	49.8	100	60-140	
Bromochloromethane	ug/L	50	52.0	104	60-140	
Bromodichloromethane	ug/L	50	55.3	111	60-140	
Bromoform	ug/L	50	44.8	90	60-140	
Bromomethane	ug/L	50	36.3	73	60-140	
Carbon tetrachloride	ug/L	50	46.6	93	60-140	
Chlorobenzene	ug/L	50	50.6	101	60-140	
Chloroethane	ug/L	50	48.7	97	60-140	
Chloroform	ug/L	50	51.2	102	60-140	
Chloromethane	ug/L	50	45.3	91	60-140	
cis-1,2-Dichloroethene	ug/L	50	48.1	96	60-140	
cis-1,3-Dichloropropene	ug/L	50	48.3	97	60-140	
Dibromochloromethane	ug/L	50	48.0	96	60-140	
Dibromomethane	ug/L	50	50.6	101	60-140	
Dichlorodifluoromethane	ug/L	50	38.5	77	60-140	
Diisopropyl ether	ug/L	50	50.4	101	60-140	
Ethanol	ug/L	2000	1710	85	60-140	
Ethylbenzene	ug/L	50	50.8	102	60-140	
Hexachloro-1,3-butadiene	ug/L	50	50.4	101	60-140	
Isopropylbenzene (Cumene)	ug/L	50	54.0	108	60-140	
m&p-Xylene	ug/L	100	105	105	60-140	
Methyl-tert-butyl ether	ug/L	50	50.5	101	60-140	
Methylene Chloride	ug/L	50	53.9	108	60-140	
n-Butylbenzene	ug/L	50	50.8	102	60-140	
n-Propylbenzene	ug/L	50	52.7	105	60-140	
Naphthalene	ug/L	50	49.0	98	60-140	
o-Xylene	ug/L	50	52.2	104	60-140	
sec-Butylbenzene	ug/L	50	52.1	104	60-140	
Styrene	ug/L	50	55.3	111	60-140	
tert-Butylbenzene	ug/L	50	51.8	104	60-140	
Tetrachloroethene	ug/L	50	51.2	102	60-140	
Toluene	ug/L	50	50.5	101	60-140	
trans-1,2-Dichloroethene	ug/L	50	46.7	93	60-140	
trans-1,3-Dichloropropene	ug/L	50	47.5	95	60-140	
Trichloroethene	ug/L	50	49.9	100	60-140	
Trichlorofluoromethane	ug/L	50	50.3	101	60-140	
Vinyl chloride	ug/L	50	48.4	97	60-140	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1  
Pace Project No.: 92190355

Parameter	92190689006		MS	MSD	1145843		1145844		% Rec	% Rec	Limits	RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	17.9	14.3	89	72	60-140	22			
1,1,1-Trichloroethane	ug/L	ND	20	20	21.3	17.1	106	85	60-140	22			
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20.6	15.3	103	76	60-140	30			
1,1,2-Trichloroethane	ug/L	ND	20	20	21.3	16.5	107	83	60-140	25			
1,1-Dichloroethane	ug/L	ND	20	20	21.0	16.8	105	84	60-140	22			
1,1-Dichloroethene	ug/L	ND	20	20	20.2	16.8	101	84	60-140	19			
1,1-Dichloropropene	ug/L	ND	20	20	21.4	17.2	107	86	60-140	22			
1,2,3-Trichlorobenzene	ug/L	ND	20	20	17.4	14.0	87	70	60-140	22			
1,2,3-Trichloropropane	ug/L	ND	20	20	20.3	14.8	101	74	60-140	31	R1		
1,2,4-Trichlorobenzene	ug/L	ND	20	20	17.4	14.0	87	70	60-140	22			
1,2,4-Trimethylbenzene	ug/L	ND	20	20	19.3	15.1	96	76	60-140	24			
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	22.5	16.2	113	81	60-140	32	R1		
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.5	16.4	108	82	60-140	27			
1,2-Dichlorobenzene	ug/L	ND	20	20	18.2	14.2	91	71	60-140	24			
1,2-Dichloroethane	ug/L	2.4	20	20	23.0	18.1	103	79	60-140	24			
1,2-Dichloropropane	ug/L	ND	20	20	20.6	16.0	103	80	60-140	25			
1,3,5-Trimethylbenzene	ug/L	ND	20	20	19.5	15.5	97	77	60-140	23			
1,3-Dichlorobenzene	ug/L	ND	20	20	17.7	13.9	89	70	60-140	24			
1,3-Dichloropropane	ug/L	ND	20	20	21.2	16.2	106	81	60-140	26			
1,4-Dichlorobenzene	ug/L	ND	20	20	17.6	14.1	88	70	60-140	23			
2,2-Dichloropropane	ug/L	ND	20	20	18.8	15.5	94	78	60-140	19			
2-Chlorotoluene	ug/L	ND	20	20	18.7	14.9	94	74	60-140	23			
4-Chlorotoluene	ug/L	ND	20	20	19.0	14.9	95	74	60-140	24			
Benzene	ug/L	ND	20	20	20.7	16.6	104	83	60-140	22			
Bromobenzene	ug/L	ND	20	20	19.0	14.8	95	74	60-140	25			
Bromochloromethane	ug/L	ND	20	20	22.3	17.5	112	88	60-140	24			
Bromodichloromethane	ug/L	ND	20	20	19.5	15.6	98	78	60-140	22			
Bromoform	ug/L	ND	20	20	15.7	13.0	78	65	60-140	19			
Bromomethane	ug/L	ND	20	20	14.7	15.1	74	76	60-140	3			
Carbon tetrachloride	ug/L	ND	20	20	17.5	15.6	88	78	60-140	11			
Chlorobenzene	ug/L	ND	20	20	19.8	15.6	99	78	60-140	24			
Chloroethane	ug/L	ND	20	20	22.3	19.5	111	97	60-140	13			
Chloroform	ug/L	ND	20	20	21.3	16.7	106	83	60-140	24			
Chloromethane	ug/L	ND	20	20	18.5	17.8	93	89	60-140	4			
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.4	16.2	102	81	60-140	23			
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.9	13.6	85	68	60-140	21			
Dibromochloromethane	ug/L	ND	20	20	17.2	13.8	86	69	60-140	22			
Dibromomethane	ug/L	ND	20	20	20.0	15.2	100	76	60-140	27			
Dichlorodifluoromethane	ug/L	ND	20	20	15.3	17.9	77	90	60-140	16			
Diisopropyl ether	ug/L	0.55	20	20	22.1	17.1	108	83	60-140	26			
Ethanol	ug/L	ND	800	800	772	559	97	70	60-140	32	R1		
Ethylbenzene	ug/L	ND	20	20	19.7	15.7	99	78	60-140	23			
Hexachloro-1,3-butadiene	ug/L	ND	20	20	17.6	14.2	88	71	60-140	21			
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.5	16.2	102	81	60-140	23			
m&p-Xylene	ug/L	ND	40	40	39.0	31.5	97	79	60-140	21			
Methyl-tert-butyl ether	ug/L	6.6	20	20	28.2	22.8	108	81	60-140	21			
Methylene Chloride	ug/L	ND	20	20	21.6	16.0	108	80	60-140	30			

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Parameter	92190689006		MS		MSD		MS		MSD		% Rec	Limits	RPD	Qual
	Units	Result	Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	MSD % Rec						
n-Butylbenzene	ug/L	ND	20	20	17.8	14.6	89	73	60-140	20				
n-Propylbenzene	ug/L	ND	20	20	19.8	15.8	99	79	60-140	23				
Naphthalene	ug/L	ND	20	20	18.6	14.2	93	71	60-140	27				
o-Xylene	ug/L	ND	20	20	20.0	15.8	100	79	60-140	24				
sec-Butylbenzene	ug/L	ND	20	20	19.4	15.7	97	78	60-140	21				
Styrene	ug/L	ND	20	20	20.8	16.2	104	81	60-140	25				
tert-Butylbenzene	ug/L	ND	20	20	19.4	15.6	97	78	60-140	22				
Tetrachloroethene	ug/L	ND	20	20	19.9	16.1	99	81	60-140	21				
Toluene	ug/L	ND	20	20	19.7	15.8	99	79	60-140	22				
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.3	15.6	97	78	60-140	21				
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.9	13.6	85	68	60-140	21				
Trichloroethene	ug/L	ND	20	20	19.3	15.3	96	77	60-140	23				
Trichlorofluoromethane	ug/L	ND	20	20	21.3	18.2	106	91	60-140	15				
Vinyl chloride	ug/L	ND	20	20	20.1	18.6	101	93	60-140	8				
1,2-Dichloroethane-d4 (S)	%						101	100	70-130					
4-Bromofluorobenzene (S)	%						100	100	70-130					
Toluene-d8 (S)	%						100	100	70-130					

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: MSV/25862 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level  
Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1142847 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,1-Dichloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,1-Dichloroethene	ug/L	ND	1.0	02/22/14 00:19	
1,1-Dichloropropene	ug/L	ND	1.0	02/22/14 00:19	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	02/22/14 00:19	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	02/22/14 00:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/22/14 00:19	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
1,2-Dichloroethane	ug/L	ND	1.0	02/22/14 00:19	
1,2-Dichloropropane	ug/L	ND	1.0	02/22/14 00:19	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
1,3-Dichloropropane	ug/L	ND	1.0	02/22/14 00:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
2,2-Dichloropropane	ug/L	ND	1.0	02/22/14 00:19	
2-Butanone (MEK)	ug/L	ND	5.0	02/22/14 00:19	
2-Chlorotoluene	ug/L	ND	1.0	02/22/14 00:19	
2-Hexanone	ug/L	ND	5.0	02/22/14 00:19	
4-Chlorotoluene	ug/L	ND	1.0	02/22/14 00:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	02/22/14 00:19	
Acetone	ug/L	ND	25.0	02/22/14 00:19	
Benzene	ug/L	ND	1.0	02/22/14 00:19	
Bromobenzene	ug/L	ND	1.0	02/22/14 00:19	
Bromochloromethane	ug/L	ND	1.0	02/22/14 00:19	
Bromodichloromethane	ug/L	ND	1.0	02/22/14 00:19	
Bromoform	ug/L	ND	1.0	02/22/14 00:19	
Bromomethane	ug/L	ND	2.0	02/22/14 00:19	
Carbon tetrachloride	ug/L	ND	1.0	02/22/14 00:19	
Chlorobenzene	ug/L	ND	1.0	02/22/14 00:19	
Chloroethane	ug/L	ND	1.0	02/22/14 00:19	
Chloroform	ug/L	ND	1.0	02/22/14 00:19	
Chloromethane	ug/L	ND	1.0	02/22/14 00:19	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/22/14 00:19	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/22/14 00:19	
Dibromochloromethane	ug/L	ND	1.0	02/22/14 00:19	
Dibromomethane	ug/L	ND	1.0	02/22/14 00:19	
Dichlorodifluoromethane	ug/L	ND	1.0	02/22/14 00:19	
Diisopropyl ether	ug/L	ND	1.0	02/22/14 00:19	
Ethylbenzene	ug/L	ND	1.0	02/22/14 00:19	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

METHOD BLANK: 1142847

Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	ND	1.0	02/22/14 00:19	
m&p-Xylene	ug/L	ND	2.0	02/22/14 00:19	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/22/14 00:19	
Methylene Chloride	ug/L	ND	2.0	02/22/14 00:19	
Naphthalene	ug/L	ND	1.0	02/22/14 00:19	
o-Xylene	ug/L	ND	1.0	02/22/14 00:19	
p-Isopropyltoluene	ug/L	ND	1.0	02/22/14 00:19	
Styrene	ug/L	ND	1.0	02/22/14 00:19	
Tetrachloroethene	ug/L	ND	1.0	02/22/14 00:19	
Toluene	ug/L	ND	1.0	02/22/14 00:19	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/22/14 00:19	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/22/14 00:19	
Trichloroethene	ug/L	ND	1.0	02/22/14 00:19	
Trichlorofluoromethane	ug/L	ND	1.0	02/22/14 00:19	
Vinyl acetate	ug/L	ND	2.0	02/22/14 00:19	
Vinyl chloride	ug/L	ND	1.0	02/22/14 00:19	
Xylene (Total)	ug/L	ND	2.0	02/22/14 00:19	
1,2-Dichloroethane-d4 (S)	%	96	70-130	02/22/14 00:19	
4-Bromofluorobenzene (S)	%	98	70-130	02/22/14 00:19	
Toluene-d8 (S)	%	97	70-130	02/22/14 00:19	

LABORATORY CONTROL SAMPLE: 1142848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,1-Trichloroethane	ug/L	50	43.0	86	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.8	98	70-130	
1,1,2-Trichloroethane	ug/L	50	48.2	96	70-130	
1,1-Dichloroethane	ug/L	50	42.1	84	70-130	
1,1-Dichloroethene	ug/L	50	40.6	81	70-132	
1,1-Dichloropropene	ug/L	50	43.0	86	70-130	
1,2,3-Trichlorobenzene	ug/L	50	46.5	93	70-135	
1,2,3-Trichloropropane	ug/L	50	49.3	99	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.2	96	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	47.6	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	49.8	100	70-130	
1,2-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,2-Dichloroethane	ug/L	50	43.2	86	70-130	
1,2-Dichloropropane	ug/L	50	46.5	93	70-130	
1,3-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,3-Dichloropropane	ug/L	50	50.5	101	70-130	
1,4-Dichlorobenzene	ug/L	50	49.8	100	70-130	
2,2-Dichloropropane	ug/L	50	39.4	79	58-145	
2-Butanone (MEK)	ug/L	100	87.8	88	70-145	
2-Chlorotoluene	ug/L	50	49.7	99	70-130	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1142848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Hexanone	ug/L	100	97.5	97	70-144	
4-Chlorotoluene	ug/L	50	51.1	102	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.2	94	70-140	
Acetone	ug/L	100	86.4	86	50-175	
Benzene	ug/L	50	47.6	95	70-130	
Bromobenzene	ug/L	50	49.8	100	70-130	
Bromochloromethane	ug/L	50	43.3	87	70-130	
Bromodichloromethane	ug/L	50	47.2	94	70-130	
Bromoform	ug/L	50	49.8	100	70-130	
Bromomethane	ug/L	50	43.6	87	54-130	
Carbon tetrachloride	ug/L	50	48.1	96	70-132	
Chlorobenzene	ug/L	50	48.8	98	70-130	
Chloroethane	ug/L	50	39.9	80	64-134	
Chloroform	ug/L	50	41.9	84	70-130	
Chloromethane	ug/L	50	44.1	88	64-130	
cis-1,2-Dichloroethene	ug/L	50	42.1	84	70-131	
cis-1,3-Dichloropropene	ug/L	50	45.0	90	70-130	
Dibromochloromethane	ug/L	50	50.4	101	70-130	
Dibromomethane	ug/L	50	46.6	93	70-131	
Dichlorodifluoromethane	ug/L	50	46.0	92	56-130	
Diisopropyl ether	ug/L	50	43.4	87	70-130	
Ethylbenzene	ug/L	50	48.4	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	46.4	93	70-130	
m&p-Xylene	ug/L	100	99.8	100	70-130	
Methyl-tert-butyl ether	ug/L	50	44.4	89	70-130	
Methylene Chloride	ug/L	50	50.2	100	63-130	
Naphthalene	ug/L	50	48.2	96	70-138	
o-Xylene	ug/L	50	49.4	99	70-130	
p-Isopropyltoluene	ug/L	50	50.0	100	70-130	
Styrene	ug/L	50	51.0	102	70-130	
Tetrachloroethene	ug/L	50	49.6	99	70-130	
Toluene	ug/L	50	46.5	93	70-130	
trans-1,2-Dichloroethene	ug/L	50	40.9	82	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.1	94	70-132	
Trichloroethene	ug/L	50	46.1	92	70-130	
Trichlorofluoromethane	ug/L	50	43.7	87	62-133	
Vinyl acetate	ug/L	100	84.4	84	66-157	
Vinyl chloride	ug/L	50	44.1	88	69-130	
Xylene (Total)	ug/L	150	149	99	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			97	70-130	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Parameter	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1143591			1143592			MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
	92190582001 Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
1,1-Dichloroethene	ug/L	ND	50	50	45.5	44.9	91	90	70-166	1	
Benzene	ug/L	ND	50	50	50.3	50.6	101	101	70-148	1	
Chlorobenzene	ug/L	ND	50	50	51.5	52.1	103	104	70-146	1	
Toluene	ug/L	ND	50	50	48.1	48.5	96	97	70-155	1	
Trichloroethene	ug/L	ND	50	50	52.8	52.7	106	105	69-151	0	
1,2-Dichloroethane-d4 (S)	%						100	101	70-130		
4-Bromofluorobenzene (S)	%						97	96	70-130		
Toluene-d8 (S)	%						96	96	70-130		

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

METHOD BLANK: 1142403

Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.0	02/21/14 11:34	
Ethylbenzene	ug/kg	ND	5.0	02/21/14 11:34	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	02/21/14 11:34	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	02/21/14 11:34	
m&p-Xylene	ug/kg	ND	10.1	02/21/14 11:34	
Methyl-tert-butyl ether	ug/kg	ND	5.0	02/21/14 11:34	
Methylene Chloride	ug/kg	ND	20.2	02/21/14 11:34	
n-Butylbenzene	ug/kg	ND	5.0	02/21/14 11:34	
n-Propylbenzene	ug/kg	ND	5.0	02/21/14 11:34	
Naphthalene	ug/kg	ND	5.0	02/21/14 11:34	
o-Xylene	ug/kg	ND	5.0	02/21/14 11:34	
p-Isopropyltoluene	ug/kg	ND	5.0	02/21/14 11:34	
sec-Butylbenzene	ug/kg	ND	5.0	02/21/14 11:34	
Styrene	ug/kg	ND	5.0	02/21/14 11:34	
tert-Butylbenzene	ug/kg	ND	5.0	02/21/14 11:34	
Tetrachloroethene	ug/kg	ND	5.0	02/21/14 11:34	
Toluene	ug/kg	ND	5.0	02/21/14 11:34	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	02/21/14 11:34	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	02/21/14 11:34	
Trichloroethene	ug/kg	ND	5.0	02/21/14 11:34	
Trichlorofluoromethane	ug/kg	ND	5.0	02/21/14 11:34	
Vinyl acetate	ug/kg	ND	50.4	02/21/14 11:34	
Vinyl chloride	ug/kg	ND	10.1	02/21/14 11:34	
Xylene (Total)	ug/kg	ND	10.1	02/21/14 11:34	
1,2-Dichloroethane-d4 (S)	%	113	70-132	02/21/14 11:34	
4-Bromofluorobenzene (S)	%	92	70-130	02/21/14 11:34	
Toluene-d8 (S)	%	98	70-130	02/21/14 11:34	

LABORATORY CONTROL SAMPLE: 1142404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	47.4	44.8	94	70-131	
1,1,1-Trichloroethane	ug/kg	47.4	51.2	108	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	47.4	47.6	100	70-130	
1,1,2-Trichloroethane	ug/kg	47.4	44.9	95	70-132	
1,1-Dichloroethane	ug/kg	47.4	49.3	104	70-143	
1,1-Dichloroethene	ug/kg	47.4	49.2	104	70-137	
1,1-Dichloropropene	ug/kg	47.4	54.0	114	70-135	
1,2,3-Trichlorobenzene	ug/kg	47.4	50.5	106	69-153	
1,2,3-Trichloropropane	ug/kg	47.4	45.4	96	70-130	
1,2,4-Trichlorobenzene	ug/kg	47.4	51.0	108	55-171	
1,2,4-Trimethylbenzene	ug/kg	47.4	51.9	109	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	47.4	45.6	96	68-141	
1,2-Dibromoethane (EDB)	ug/kg	47.4	48.1	101	70-130	
1,2-Dichlorobenzene	ug/kg	47.4	46.4	98	70-140	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1142404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	47.4	45.9	97	70-137	
1,2-Dichloropropane	ug/kg	47.4	45.5	96	70-133	
1,3,5-Trimethylbenzene	ug/kg	47.4	50.0	105	70-143	
1,3-Dichlorobenzene	ug/kg	47.4	45.4	96	70-144	
1,3-Dichloropropane	ug/kg	47.4	46.5	98	70-132	
1,4-Dichlorobenzene	ug/kg	47.4	46.5	98	70-142	
2,2-Dichloropropane	ug/kg	47.4	52.1	110	68-152	
2-Butanone (MEK)	ug/kg	94.9	114	120	70-149	
2-Chlorotoluene	ug/kg	47.4	48.2	102	70-141	
2-Hexanone	ug/kg	94.9	94.7	100	70-149	
4-Chlorotoluene	ug/kg	47.4	48.8	103	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	94.9	93.5	99	70-153	
Acetone	ug/kg	94.9	113	119	70-157	
Benzene	ug/kg	47.4	48.2	102	70-130	
Bromobenzene	ug/kg	47.4	47.1	99	70-141	
Bromochloromethane	ug/kg	47.4	49.1	104	70-149	
Bromodichloromethane	ug/kg	47.4	43.4	92	70-130	
Bromoform	ug/kg	47.4	45.9	97	70-131	
Bromomethane	ug/kg	47.4	66.1	139	64-136 L3	
Carbon tetrachloride	ug/kg	47.4	42.3	89	70-154	
Chlorobenzene	ug/kg	47.4	44.6	94	70-135	
Chloroethane	ug/kg	47.4	47.9	101	68-151	
Chloroform	ug/kg	47.4	48.0	101	70-130	
Chloromethane	ug/kg	47.4	50.2	106	70-132	
cis-1,2-Dichloroethene	ug/kg	47.4	49.1	104	70-140	
cis-1,3-Dichloropropene	ug/kg	47.4	45.9	97	70-137	
Dibromochloromethane	ug/kg	47.4	44.4	94	70-130	
Dibromomethane	ug/kg	47.4	43.5	92	70-136	
Dichlorodifluoromethane	ug/kg	47.4	55.5	117	36-148	
Diisopropyl ether	ug/kg	47.4	50.3	106	70-139	
Ethylbenzene	ug/kg	47.4	45.9	97	70-137	
Hexachloro-1,3-butadiene	ug/kg	47.4	41.2	87	70-145	
Isopropylbenzene (Cumene)	ug/kg	47.4	48.3	102	70-141	
m&p-Xylene	ug/kg	94.9	93.0	98	70-140	
Methyl-tert-butyl ether	ug/kg	47.4	51.0	107	45-150	
Methylene Chloride	ug/kg	47.4	71.0	150	70-133 L3	
n-Butylbenzene	ug/kg	47.4	54.1	114	65-155	
n-Propylbenzene	ug/kg	47.4	51.1	108	70-148	
Naphthalene	ug/kg	47.4	63.7	134	70-148	
o-Xylene	ug/kg	47.4	46.2	97	70-141	
p-Isopropyltoluene	ug/kg	47.4	51.6	109	70-148	
sec-Butylbenzene	ug/kg	47.4	51.0	108	70-145	
Styrene	ug/kg	47.4	47.5	100	70-138	
tert-Butylbenzene	ug/kg	47.4	45.1	95	70-143	
Tetrachloroethene	ug/kg	47.4	43.9	93	70-140	
Toluene	ug/kg	47.4	44.6	94	70-130	
trans-1,2-Dichloroethene	ug/kg	47.4	49.2	104	70-136	
trans-1,3-Dichloropropene	ug/kg	47.4	44.8	94	70-138	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1142404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	47.4	43.5	92	70-132	
Trichlorofluoromethane	ug/kg	47.4	53.1	112	69-134	
Vinyl acetate	ug/kg	94.9	126	133	24-161	
Vinyl chloride	ug/kg	47.4	55.2	116	55-140	
Xylene (Total)	ug/kg	142	139	98	70-141	
1,2-Dichloroethane-d4 (S)	%			111	70-132	
4-Bromofluorobenzene (S)	%			87	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1143264

Parameter	Units	92190486003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	<4.5	44.4	55.8	126	49-180	
Benzene	ug/kg	<4.5	44.4	55.0	124	50-166	
Chlorobenzene	ug/kg	<4.5	44.4	49.5	112	43-169	
Toluene	ug/kg	<4.5	44.4	55.8	126	52-163	
Trichloroethene	ug/kg	<4.5	44.4	58.2	131	49-167	
1,2-Dichloroethane-d4 (S)	%				91	70-132	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				108	70-130	

SAMPLE DUPLICATE: 1143263

Parameter	Units	92190486001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<4.1	ND		
1,1,1-Trichloroethane	ug/kg	<4.1	ND		
1,1,2,2-Tetrachloroethane	ug/kg	<4.1	ND		
1,1,2-Trichloroethane	ug/kg	<4.1	ND		
1,1-Dichloroethane	ug/kg	<4.1	ND		
1,1-Dichloroethane	ug/kg	<4.1	ND		
1,1-Dichloropropene	ug/kg	<4.1	ND		
1,2,3-Trichlorobenzene	ug/kg	<4.1	ND		
1,2,3-Trichloropropane	ug/kg	<4.1	ND		
1,2,4-Trichlorobenzene	ug/kg	<4.1	ND		
1,2,4-Trimethylbenzene	ug/kg	<4.1	ND		
1,2-Dibromo-3-chloropropane	ug/kg	<4.1	ND		
1,2-Dibromoethane (EDB)	ug/kg	<4.1	ND		
1,2-Dichlorobenzene	ug/kg	<4.1	ND		
1,2-Dichloroethane	ug/kg	<4.1	ND		
1,2-Dichloropropane	ug/kg	<4.1	ND		
1,3,5-Trimethylbenzene	ug/kg	<4.1	ND		
1,3-Dichlorobenzene	ug/kg	<4.1	ND		
1,3-Dichloropropane	ug/kg	<4.1	ND		
1,4-Dichlorobenzene	ug/kg	<4.1	ND		
2,2-Dichloropropane	ug/kg	<4.1	ND		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

SAMPLE DUPLICATE: 1143263

Parameter	Units	92190486001 Result	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/kg	<82.9	ND		
2-Chlorotoluene	ug/kg	<4.1	ND		
2-Hexanone	ug/kg	<41.5	ND		
4-Chlorotoluene	ug/kg	<4.1	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	<41.5	ND		
Acetone	ug/kg	<82.9	27.1J		
Benzene	ug/kg	<4.1	ND		
Bromobenzene	ug/kg	<4.1	ND		
Bromochloromethane	ug/kg	<4.1	ND		
Bromodichloromethane	ug/kg	<4.1	ND		
Bromoform	ug/kg	<4.1	ND		
Bromomethane	ug/kg	<8.3	ND		
Carbon tetrachloride	ug/kg	<4.1	ND		
Chlorobenzene	ug/kg	<4.1	ND		
Chloroethane	ug/kg	<8.3	ND		
Chloroform	ug/kg	<4.1	ND		
Chloromethane	ug/kg	<8.3	ND		
cis-1,2-Dichloroethene	ug/kg	<4.1	ND		
cis-1,3-Dichloropropene	ug/kg	<4.1	ND		
Dibromochloromethane	ug/kg	<4.1	ND		
Dibromomethane	ug/kg	<4.1	ND		
Dichlorodifluoromethane	ug/kg	<8.3	ND		
Diisopropyl ether	ug/kg	<4.1	ND		
Ethylbenzene	ug/kg	<4.1	ND		
Hexachloro-1,3-butadiene	ug/kg	<4.1	ND		
Isopropylbenzene (Cumene)	ug/kg	<4.1	ND		
m&p-Xylene	ug/kg	<8.3	ND		
Methyl-tert-butyl ether	ug/kg	<4.1	ND		
Methylene Chloride	ug/kg	<16.6	2.6J		
n-Butylbenzene	ug/kg	<4.1	ND		
n-Propylbenzene	ug/kg	<4.1	ND		
Naphthalene	ug/kg	<4.1	ND		
o-Xylene	ug/kg	<4.1	ND		
p-Isopropyltoluene	ug/kg	<4.1	ND		
sec-Butylbenzene	ug/kg	<4.1	ND		
Styrene	ug/kg	<4.1	ND		
tert-Butylbenzene	ug/kg	<4.1	ND		
Tetrachloroethene	ug/kg	<4.1	ND		
Toluene	ug/kg	<4.1	ND		
trans-1,2-Dichloroethene	ug/kg	<4.1	ND		
trans-1,3-Dichloropropene	ug/kg	<4.1	ND		
Trichloroethene	ug/kg	<4.1	ND		
Trichlorofluoromethane	ug/kg	<4.1	ND		
Vinyl acetate	ug/kg	<41.5	ND		
Vinyl chloride	ug/kg	<8.3	ND		
Xylene (Total)	ug/kg	<8.3	ND		
1,2-Dichloroethane-d4 (S)	%	117	88		29
4-Bromofluorobenzene (S)	%	87	92		6

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

SAMPLE DUPLICATE: 1143263

Parameter	Units	92190486001 Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	97	111	13	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: OEXT/26010 Analysis Method: EPA 625  
QC Batch Method: EPA 625 Analysis Description: 625 MSS  
Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1141550 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	02/28/14 07:26	
2,4,6-Trichlorophenol	ug/L	ND	10.0	02/28/14 07:26	
2,4-Dichlorophenol	ug/L	ND	5.0	02/28/14 07:26	
2,4-Dimethylphenol	ug/L	ND	10.0	02/28/14 07:26	
2,4-Dinitrophenol	ug/L	ND	50.0	02/28/14 07:26	
2,4-Dinitrotoluene	ug/L	ND	5.0	02/28/14 07:26	
2,6-Dinitrotoluene	ug/L	ND	5.0	02/28/14 07:26	
2-Chloronaphthalene	ug/L	ND	5.0	02/28/14 07:26	
2-Chlorophenol	ug/L	ND	5.0	02/28/14 07:26	
2-Nitrophenol	ug/L	ND	5.0	02/28/14 07:26	
3,3'-Dichlorobenzidine	ug/L	ND	25.0	02/28/14 07:26	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	02/28/14 07:26	
4-Bromophenylphenyl ether	ug/L	ND	5.0	02/28/14 07:26	
4-Chloro-3-methylphenol	ug/L	ND	5.0	02/28/14 07:26	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	02/28/14 07:26	
4-Nitrophenol	ug/L	ND	50.0	02/28/14 07:26	
Acenaphthene	ug/L	ND	5.0	02/28/14 07:26	
Acenaphthylene	ug/L	ND	5.0	02/28/14 07:26	
Anthracene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(a)anthracene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(a)pyrene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(b)fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(g,h,i)perylene	ug/L	ND	5.0	02/28/14 07:26	
Benzo(k)fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	02/28/14 07:26	
bis(2-Chloroethyl) ether	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Chloroisopropyl) ether	ug/L	ND	5.0	02/28/14 07:26	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	02/28/14 07:26	
Butylbenzylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Chrysene	ug/L	ND	5.0	02/28/14 07:26	
Di-n-butylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Di-n-octylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Dibenz(a,h)anthracene	ug/L	ND	5.0	02/28/14 07:26	
Diethylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Dimethylphthalate	ug/L	ND	5.0	02/28/14 07:26	
Fluoranthene	ug/L	ND	5.0	02/28/14 07:26	
Fluorene	ug/L	ND	5.0	02/28/14 07:26	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	02/28/14 07:26	
Hexachlorobenzene	ug/L	ND	5.0	02/28/14 07:26	
Hexachlorocyclopentadiene	ug/L	ND	10.0	02/28/14 07:26	
Hexachloroethane	ug/L	ND	5.0	02/28/14 07:26	
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	02/28/14 07:26	
Isophorone	ug/L	ND	10.0	02/28/14 07:26	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

METHOD BLANK: 1141550

Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	02/28/14 07:26	
N-Nitrosodimethylamine	ug/L	ND	5.0	02/28/14 07:26	
N-Nitrosodiphenylamine	ug/L	ND	10.0	02/28/14 07:26	
Naphthalene	ug/L	ND	5.0	02/28/14 07:26	
Nitrobenzene	ug/L	ND	5.0	02/28/14 07:26	
Pentachlorophenol	ug/L	ND	10.0	02/28/14 07:26	
Phenanthrene	ug/L	ND	5.0	02/28/14 07:26	
Phenol	ug/L	ND	5.0	02/28/14 07:26	
Pyrene	ug/L	ND	5.0	02/28/14 07:26	
2,4,6-Tribromophenol (S)	%	88	10-137	02/28/14 07:26	
2-Fluorobiphenyl (S)	%	74	15-120	02/28/14 07:26	
2-Fluorophenol (S)	%	46	10-120	02/28/14 07:26	
Nitrobenzene-d5 (S)	%	73	10-120	02/28/14 07:26	
Phenol-d6 (S)	%	33	10-120	02/28/14 07:26	
Terphenyl-d14 (S)	%	99	11-131	02/28/14 07:26	

LABORATORY CONTROL SAMPLE: 1141551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	36.0	72	44-142	
2,4,6-Trichlorophenol	ug/L	50	19.6	39	37-144	
2,4-Dichlorophenol	ug/L	50	23.9	48	1-191	
2,4-Dimethylphenol	ug/L	50	31.7	63	32-119	
2,4-Dinitrophenol	ug/L	250	49.5J	20	1-181	
2,4-Dinitrotoluene	ug/L	50	54.3	109	39-139	
2,6-Dinitrotoluene	ug/L	50	51.3	103	50-158	
2-Chloronaphthalene	ug/L	50	34.2	68	60-118	
2-Chlorophenol	ug/L	50	23.6	47	23-134	
2-Nitrophenol	ug/L	50	20.8	42	29-182	
3,3'-Dichlorobenzidine	ug/L	100	107	107	1-262	
4,6-Dinitro-2-methylphenol	ug/L	100	34.2	34	1-181	
4-Bromophenylphenyl ether	ug/L	50	44.3	89	53-127	
4-Chloro-3-methylphenol	ug/L	100	59.7	60	22-147	
4-Chlorophenylphenyl ether	ug/L	50	48.4	97	25-158	
4-Nitrophenol	ug/L	250	48.6J	19	1-132	
Acenaphthene	ug/L	50	40.8	82	47-145	
Acenaphthylene	ug/L	50	42.0	84	33-145	
Anthracene	ug/L	50	46.2	92	1-166	
Benzo(a)anthracene	ug/L	50	45.7	91	33-143	
Benzo(a)pyrene	ug/L	50	49.2	98	17-163	
Benzo(b)fluoranthene	ug/L	50	44.9	90	24-159	
Benzo(g,h,i)perylene	ug/L	50	45.0	90	1-219	
Benzo(k)fluoranthene	ug/L	50	41.4	83	11-162	
bis(2-Chloroethoxy)methane	ug/L	50	41.6	83	33-184	
bis(2-Chloroethyl) ether	ug/L	50	44.4	89	12-158	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1141551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
bis(2-Chloroisopropyl) ether	ug/L	50	44.1	88	36-166	
bis(2-Ethylhexyl)phthalate	ug/L	50	47.1	94	8-158	
Butylbenzylphthalate	ug/L	50	45.3	91	1-152	
Chrysene	ug/L	50	47.2	94	17-168	
Di-n-butylphthalate	ug/L	50	45.1	90	1-118	
Di-n-octylphthalate	ug/L	50	54.2	108	4-146	
Dibenz(a,h)anthracene	ug/L	50	49.3	99	1-227	
Diethylphthalate	ug/L	50	45.5	91	1-114	
Dimethylphthalate	ug/L	50	41.6	83	1-112	
Fluoranthene	ug/L	50	50.5	101	26-137	
Fluorene	ug/L	50	47.8	96	59-121	
Hexachloro-1,3-butadiene	ug/L	50	32.1	64	24-116	
Hexachlorobenzene	ug/L	50	40.0	80	1-152	
Hexachlorocyclopentadiene	ug/L	50	25.9	52	25-150	
Hexachloroethane	ug/L	50	33.9	68	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	48.5	97	1-171	
Isophorone	ug/L	50	48.3	97	21-196	
N-Nitroso-di-n-propylamine	ug/L	50	51.2	102	1-230	
N-Nitrosodimethylamine	ug/L	50	18.9	38	25-150	
N-Nitrosodiphenylamine	ug/L	50	34.8	70	25-150	
Naphthalene	ug/L	50	41.5	83	21-133	
Nitrobenzene	ug/L	50	39.1	78	35-180	
Pentachlorophenol	ug/L	100	39.6	40	14-176	
Phenanthrene	ug/L	50	44.9	90	54-120	
Phenol	ug/L	50	15.0	30	5-112	
Pyrene	ug/L	50	47.2	94	52-115	
2,4,6-Tribromophenol (S)	%			58	10-137	
2-Fluorobiphenyl (S)	%			75	15-120	
2-Fluorophenol (S)	%			25	10-120	
Nitrobenzene-d5 (S)	%			73	10-120	
Phenol-d6 (S)	%			22	10-120	
Terphenyl-d14 (S)	%			94	11-131	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1141552 1141553

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92190065001 Result	Spike Conc.	Spike Conc.	MS Result					
1,2,4-Trichlorobenzene	ug/L	ND	100	100	78.9	64.5	79	65	44-142	20
2,4,6-Trichlorophenol	ug/L	ND	100	100	87.6	77.0	88	77	37-144	13
2,4-Dichlorophenol	ug/L	ND	100	100	106	84.4	106	84	1-191	23
2,4-Dimethylphenol	ug/L	ND	100	100	73.8	48.8	74	49	32-119	41 R1
2,4-Dinitrophenol	ug/L	ND	500	500	263	286	53	57	1-181	9
2,4-Dinitrotoluene	ug/L	ND	100	100	105	95.2	105	95	39-139	10
2,6-Dinitrotoluene	ug/L	ND	100	100	105	97.3	105	97	50-158	7
2-Chloronaphthalene	ug/L	ND	100	100	76.9	64.0	77	64	60-118	18
2-Chlorophenol	ug/L	ND	100	100	114	78.3	114	78	23-134	37 R1
2-Nitrophenol	ug/L	ND	100	100	94.9	74.9	95	75	29-182	24

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Parameter	1141552			1141553			MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
	Units	92190065001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
3,3'-Dichlorobenzidine	ug/L	ND	200	200	115	124	58	62	1-262	7	
4,6-Dinitro-2-methylphenol	ug/L	ND	200	200	156	152	78	76	1-181	3	
4-Bromophenylphenyl ether	ug/L	ND	100	100	95.3	87.4	95	87	53-127	9	
4-Chloro-3-methylphenol	ug/L	ND	200	200	218	191	109	96	22-147	13	
4-Chlorophenylphenyl ether	ug/L	ND	100	100	98.1	89.0	98	89	25-158	10	
4-Nitrophenol	ug/L	ND	500	500	272	225	54	45	1-132	19	
Acenaphthene	ug/L	ND	100	100	88.4	75.5	88	76	47-145	16	
Acenaphthylene	ug/L	ND	100	100	91.1	77.9	91	78	33-145	16	
Anthracene	ug/L	ND	100	100	93.0	81.8	93	82	1-166	13	
Benzo(a)anthracene	ug/L	ND	100	100	90.0	83.6	90	84	33-143	7	
Benzo(a)pyrene	ug/L	ND	100	100	96.2	87.6	96	88	17-163	9	
Benzo(b)fluoranthene	ug/L	ND	100	100	94.0	86.8	94	87	24-159	8	
Benzo(g,h,i)perylene	ug/L	ND	100	100	89.4	78.4	89	78	1-219	13	
Benzo(k)fluoranthene	ug/L	ND	100	100	84.7	79.4	85	79	11-162	6	
bis(2-Chloroethoxy)methane	ug/L	ND	100	100	92.3	74.8	92	75	33-184	21	
bis(2-Chloroethyl) ether	ug/L	ND	100	100	97.6	78.5	98	78	12-158	22	
bis(2-Chloroisopropyl) ether	ug/L	ND	100	100	97.2	70.9	97	71	36-166	31	R1
bis(2-Ethylhexyl)phthalate	ug/L	ND	100	100	90.9	86.0	91	86	8-158	5	
Butylbenzylphthalate	ug/L	ND	100	100	89.1	86.1	89	86	1-152	3	
Chrysene	ug/L	ND	100	100	93.5	88.6	94	89	17-168	5	
Di-n-butylphthalate	ug/L	ND	100	100	87.5	79.7	88	80	1-118	9	
Di-n-octylphthalate	ug/L	ND	100	100	101	91.7	101	92	4-146	10	
Dibenz(a,h)anthracene	ug/L	ND	100	100	96.1	85.8	96	86	1-227	11	
Diethylphthalate	ug/L	ND	100	100	86.6	80.4	87	80	1-114	7	
Dimethylphthalate	ug/L	ND	100	100	84.2	79.0	84	79	1-112	6	
Fluoranthene	ug/L	ND	100	100	97.9	82.5	98	82	26-137	17	
Fluorene	ug/L	ND	100	100	95.9	86.7	96	87	59-121	10	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	67.7	57.7	68	58	24-116	16	
Hexachlorobenzene	ug/L	ND	100	100	83.7	76.0	84	76	1-152	10	
Hexachlorocyclopentadiene	ug/L	ND	100	100	67.6	53.4	68	53	25-150	24	
Hexachloroethane	ug/L	ND	100	100	69.9	54.7	70	55	40-113	24	
Indeno(1,2,3-cd)pyrene	ug/L	ND	100	100	95.7	84.4	96	84	1-171	13	
Isophorone	ug/L	ND	100	100	104	84.1	104	84	21-196	21	
N-Nitroso-di-n-propylamine	ug/L	ND	100	100	124	74.2	124	74	1-230	50	R1
N-Nitrosodimethylamine	ug/L	ND	100	100	55.1	44.2	55	44	25-150	22	
N-Nitrosodiphenylamine	ug/L	ND	100	100	76.3	70.5	76	70	25-150	8	
Naphthalene	ug/L	ND	100	100	91.5	73.2	92	73	21-133	22	
Nitrobenzene	ug/L	ND	100	100	96.7	75.6	97	76	35-180	24	
Pentachlorophenol	ug/L	ND	200	200	168	139	84	70	14-176	19	
Phenanthrene	ug/L	ND	100	100	92.6	82.6	93	83	54-120	11	
Phenol	ug/L	ND	100	100	91.8	53.4	92	53	5-112	53	R1
Pyrene	ug/L	ND	100	100	97.9	93.6	98	94	52-115	4	
2,4,6-Tribromophenol (S)	%						107	95	10-137		
2-Fluorobiphenyl (S)	%						84	74	15-120		
2-Fluorophenol (S)	%						71	55	10-120		
Nitrobenzene-d5 (S)	%						82	68	10-120		
Phenol-d6 (S)	%						84	50	10-120		

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1141552		1141553							
Parameter	Units	92190065001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Terphenyl-d14 (S)	%						98	99	11-131		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch:	OEXT/26002	Analysis Method:	EPA 8015 Modified
QC Batch Method:	EPA 3546	Analysis Description:	8015 Solid GCSV
Associated Lab Samples:	92190355001, 92190355002		

METHOD BLANK: 1141205 Matrix: Solid

Associated Lab Samples: 92190355001, 92190355002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	02/20/14 14:23	
n-Pentacosane (S)	%	70	41-119	02/20/14 14:23	

LABORATORY CONTROL SAMPLE: 1141206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	47.9	72	49-113	
n-Pentacosane (S)	%			79	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1141207 1141208

Parameter	Units	92189902002 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
			Spike Conc.	MS Result	MSD Result	% Rec	% Rec	% Rec					
Diesel Components	mg/kg	101	79.5	80.5	185	-25	106	10-146	79	M0,R1			
n-Pentacosane (S)	%					66	94	41-119	R1				

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: OEXT/26043 Analysis Method: EPA 8015 Modified  
 QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV  
 Associated Lab Samples: 92190355006, 92190355007

METHOD BLANK: 1142830 Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	02/22/14 14:47	
n-Pentacosane (S)	%	78	41-119	02/22/14 14:47	

LABORATORY CONTROL SAMPLE & LCSD: 1142831

1142833

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Components	mg/kg	66.7	51.6	52.6	77	79	49-113	2	30	
n-Pentacosane (S)	%				88	73	41-119			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1143312

1143313

Parameter	Units	92190639002		MS		MSD		MS		MSD		% Rec		Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD			
Diesel Components	mg/kg	90.5	73.9	73.9	153	125	85	47	10-146	20				
n-Pentacosane (S)	%						72	61	41-119					

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: OEXT/26015 Analysis Method: EPA 8270  
 QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
 Associated Lab Samples: 92190355006, 92190355007

METHOD BLANK: 1141738 Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	02/25/14 15:56	
1,2-Dichlorobenzene	ug/kg	ND	330	02/25/14 15:56	
1,3-Dichlorobenzene	ug/kg	ND	330	02/25/14 15:56	
1,4-Dichlorobenzene	ug/kg	ND	330	02/25/14 15:56	
1-Methylnaphthalene	ug/kg	ND	330	02/25/14 15:56	
2,4,5-Trichlorophenol	ug/kg	ND	330	02/25/14 15:56	
2,4,6-Trichlorophenol	ug/kg	ND	330	02/25/14 15:56	
2,4-Dichlorophenol	ug/kg	ND	330	02/25/14 15:56	
2,4-Dimethylphenol	ug/kg	ND	330	02/25/14 15:56	
2,4-Dinitrophenol	ug/kg	ND	1650	02/25/14 15:56	
2,4-Dinitrotoluene	ug/kg	ND	330	02/25/14 15:56	
2,6-Dinitrotoluene	ug/kg	ND	330	02/25/14 15:56	
2-Chloronaphthalene	ug/kg	ND	330	02/25/14 15:56	
2-Chlorophenol	ug/kg	ND	330	02/25/14 15:56	
2-Methylnaphthalene	ug/kg	ND	330	02/25/14 15:56	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	02/25/14 15:56	
2-Nitroaniline	ug/kg	ND	1650	02/25/14 15:56	
2-Nitrophenol	ug/kg	ND	330	02/25/14 15:56	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	02/25/14 15:56	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	02/25/14 15:56	
3-Nitroaniline	ug/kg	ND	1650	02/25/14 15:56	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	02/25/14 15:56	
4-Bromophenylphenyl ether	ug/kg	ND	330	02/25/14 15:56	
4-Chloro-3-methylphenol	ug/kg	ND	660	02/25/14 15:56	
4-Chloroaniline	ug/kg	ND	1650	02/25/14 15:56	
4-Chlorophenylphenyl ether	ug/kg	ND	330	02/25/14 15:56	
4-Nitroaniline	ug/kg	ND	660	02/25/14 15:56	
4-Nitrophenol	ug/kg	ND	1650	02/25/14 15:56	
Acenaphthene	ug/kg	ND	330	02/25/14 15:56	
Acenaphthylene	ug/kg	ND	330	02/25/14 15:56	
Aniline	ug/kg	ND	330	02/25/14 15:56	
Anthracene	ug/kg	ND	330	02/25/14 15:56	
Benzo(a)anthracene	ug/kg	ND	330	02/25/14 15:56	
Benzo(a)pyrene	ug/kg	ND	330	02/25/14 15:56	
Benzo(b)fluoranthene	ug/kg	ND	330	02/25/14 15:56	
Benzo(g,h,i)perylene	ug/kg	ND	330	02/25/14 15:56	
Benzo(k)fluoranthene	ug/kg	ND	330	02/25/14 15:56	
Benzoic Acid	ug/kg	ND	1650	02/25/14 15:56	
Benzyl alcohol	ug/kg	ND	660	02/25/14 15:56	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	02/25/14 15:56	
bis(2-Chloroethyl) ether	ug/kg	ND	330	02/25/14 15:56	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	02/25/14 15:56	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	02/25/14 15:56	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

METHOD BLANK: 1141738

Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	02/25/14 15:56	
Chrysene	ug/kg	ND	330	02/25/14 15:56	
Di-n-butylphthalate	ug/kg	ND	330	02/25/14 15:56	
Di-n-octylphthalate	ug/kg	ND	330	02/25/14 15:56	
Dibenz(a,h)anthracene	ug/kg	ND	330	02/25/14 15:56	
Dibenzofuran	ug/kg	ND	330	02/25/14 15:56	
Diethylphthalate	ug/kg	ND	330	02/25/14 15:56	
Dimethylphthalate	ug/kg	ND	330	02/25/14 15:56	
Fluoranthene	ug/kg	ND	330	02/25/14 15:56	
Fluorene	ug/kg	ND	330	02/25/14 15:56	
Hexachloro-1,3-butadiene	ug/kg	ND	330	02/25/14 15:56	
Hexachlorobenzene	ug/kg	ND	330	02/25/14 15:56	
Hexachlorocyclopentadiene	ug/kg	ND	330	02/25/14 15:56	
Hexachloroethane	ug/kg	ND	330	02/25/14 15:56	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	02/25/14 15:56	
Isophorone	ug/kg	ND	330	02/25/14 15:56	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	02/25/14 15:56	
N-Nitrosodimethylamine	ug/kg	ND	330	02/25/14 15:56	
N-Nitrosodiphenylamine	ug/kg	ND	330	02/25/14 15:56	
Naphthalene	ug/kg	ND	330	02/25/14 15:56	
Nitrobenzene	ug/kg	ND	330	02/25/14 15:56	
Pentachlorophenol	ug/kg	ND	1650	02/25/14 15:56	
Phenanthrene	ug/kg	ND	330	02/25/14 15:56	
Phenol	ug/kg	ND	330	02/25/14 15:56	
Pyrene	ug/kg	ND	330	02/25/14 15:56	
2,4,6-Tribromophenol (S)	%	85	27-110	02/25/14 15:56	
2-Fluorobiphenyl (S)	%	80	30-110	02/25/14 15:56	
2-Fluorophenol (S)	%	80	13-110	02/25/14 15:56	
Nitrobenzene-d5 (S)	%	73	23-110	02/25/14 15:56	
Phenol-d6 (S)	%	78	22-110	02/25/14 15:56	
Terphenyl-d14 (S)	%	105	28-110	02/25/14 15:56	

LABORATORY CONTROL SAMPLE: 1141739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1220	73	39-101	
1,2-Dichlorobenzene	ug/kg	1670	1210	73	36-110	
1,3-Dichlorobenzene	ug/kg	1670	1190	71	35-110	
1,4-Dichlorobenzene	ug/kg	1670	1210	73	35-110	
1-Methylnaphthalene	ug/kg	1670	1380	83	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1400	84	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	1290	77	45-111	
2,4-Dichlorophenol	ug/kg	1670	1420	85	51-116	
2,4-Dimethylphenol	ug/kg	1670	1510	90	42-103	
2,4-Dinitrophenol	ug/kg	8330	5120	61	28-103	

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1141739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1550	93	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1490	89	48-112	
2-Chloronaphthalene	ug/kg	1670	1100	66	44-105	
2-Chlorophenol	ug/kg	1670	1400	84	36-110	
2-Methylnaphthalene	ug/kg	1670	1430	86	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	1410	85	39-101	
2-Nitroaniline	ug/kg	3330	2810	84	44-111	
2-Nitrophenol	ug/kg	1670	1380	83	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1420	85	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2820	84	10-150	
3-Nitroaniline	ug/kg	3330	2840	85	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2480	74	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1380	83	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2950	88	43-127	
4-Chloroaniline	ug/kg	3330	2750	82	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1400	84	44-115	
4-Nitroaniline	ug/kg	3330	2980	89	37-111	
4-Nitrophenol	ug/kg	8330	6710	80	21-152	
Acenaphthene	ug/kg	1670	1250	75	38-117	
Acenaphthylene	ug/kg	1670	1320	79	46-107	
Aniline	ug/kg	1670	1230	74	29-110	
Anthracene	ug/kg	1670	1430	86	50-110	
Benzo(a)anthracene	ug/kg	1670	1380	83	47-116	
Benzo(a)pyrene	ug/kg	1670	1470	88	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1420	85	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1280	77	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1330	80	45-117	
Benzoic Acid	ug/kg	8330	5600	67	16-110	
Benzyl alcohol	ug/kg	3330	2470	74	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	1280	77	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	1320	79	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	1180	71	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1380	83	35-116	
Butylbenzylphthalate	ug/kg	1670	1420	85	38-110	
Chrysene	ug/kg	1670	1430	86	49-110	
Di-n-butylphthalate	ug/kg	1670	1310	79	43-109	
Di-n-octylphthalate	ug/kg	1670	1460	87	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1390	83	43-116	
Dibenzofuran	ug/kg	1670	1190	71	45-106	
Diethylphthalate	ug/kg	1670	1270	76	41-114	
Dimethylphthalate	ug/kg	1670	1210	72	43-110	
Fluoranthene	ug/kg	1670	1450	87	50-114	
Fluorene	ug/kg	1670	1390	83	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	1220	73	28-111	
Hexachlorobenzene	ug/kg	1670	1240	74	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	995	60	18-119	
Hexachloroethane	ug/kg	1670	1160	69	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1380	83	42-115	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

LABORATORY CONTROL SAMPLE: 1141739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Isophorone	ug/kg	1670	1380	83	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	1080	65	43-104	
N-Nitrosodimethylamine	ug/kg	1670	1100	66	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1150	69	48-113	
Naphthalene	ug/kg	1670	1330	80	41-110	
Nitrobenzene	ug/kg	1670	1320	79	38-110	
Pentachlorophenol	ug/kg	3330	2490	75	32-128	
Phenanthrene	ug/kg	1670	1380	83	50-110	
Phenol	ug/kg	1670	1460	88	28-106	
Pyrene	ug/kg	1670	1680	101	45-114	
2,4,6-Tribromophenol (S)	%			95	27-110	
2-Fluorobiphenyl (S)	%			77	30-110	
2-Fluorophenol (S)	%			87	13-110	
Nitrobenzene-d5 (S)	%			77	23-110	
Phenol-d6 (S)	%			87	22-110	
Terphenyl-d14 (S)	%			103	28-110	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch:	OEXT/26076	Analysis Method:	MADEP EPH
QC Batch Method:	MADEP EPH	Analysis Description:	MADEP EPH NC Soil
Associated Lab Samples:	92190355006, 92190355007		

METHOD BLANK: 1143989 Matrix: Solid

Associated Lab Samples: 92190355006, 92190355007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C09-C18)	mg/kg	ND	10.0	02/25/14 18:45	N2
Aliphatic (C19-C36)	mg/kg	ND	10.0	02/25/14 18:45	N2
Aromatic (C11-C22)	mg/kg	ND	10.0	02/25/14 18:45	N2
2-Bromonaphthalene (S)	%	86	40-140	02/25/14 18:45	
2-Fluorobiphenyl (S)	%	79	40-140	02/25/14 18:45	
Nonatriacontane (S)	%	68	40-140	02/25/14 18:45	
o-Terphenyl (S)	%	86	40-140	02/25/14 18:45	

LABORATORY CONTROL SAMPLE & LCSD: 1143990

1143991

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C09-C18)	mg/kg	10	ND	ND	78	81	40-140		50	N2
Aliphatic (C19-C36)	mg/kg	13.3	11.1	12.7	83	95	40-140	13	50	N2
Aromatic (C11-C22)	mg/kg	28.3	15.5	22.0	55	78	40-140	34	50	N2
2-Bromonaphthalene (S)	%				52	67	40-140			
2-Fluorobiphenyl (S)	%				47	62	40-140			
Nonatriacontane (S)	%				66	85	40-140			
o-Terphenyl (S)	%				47	68	40-140			

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### QUALITY CONTROL DATA

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

QC Batch: OEXT/26031 Analysis Method: MADEP EPH  
 QC Batch Method: MADEP EPH Analysis Description: MADEP EPH NC Water  
 Associated Lab Samples: 92190355003, 92190355004, 92190355005

METHOD BLANK: 1142333 Matrix: Water

Associated Lab Samples: 92190355003, 92190355004, 92190355005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C09-C18)	ug/L	ND	100	02/24/14 17:37	N2
Aliphatic (C19-C36)	ug/L	ND	100	02/24/14 17:37	N2
Aromatic (C11-C22)	ug/L	ND	100	02/24/14 17:37	N2
2-Bromonaphthalene (S)	%	103	40-140	02/24/14 17:37	
2-Fluorobiphenyl (S)	%	84	40-140	02/24/14 17:37	
Nonatriacontane (S)	%	60	40-140	02/24/14 17:37	
o-Terphenyl (S)	%	77	40-140	02/24/14 17:37	

LABORATORY CONTROL SAMPLE & LCSD: 1142334

1142335

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C09-C18)	ug/L	300	150	148	50	49	40-140	2	50	N2
Aliphatic (C19-C36)	ug/L	400	226	225	56	56	40-140	0	50	N2
Aromatic (C11-C22)	ug/L	850	583	811	69	95	40-140	33	50	N2
2-Bromonaphthalene (S)	%				83	112	40-140			
2-Fluorobiphenyl (S)	%				71	103	40-140			
Nonatriacontane (S)	%				64	66	40-140			
o-Terphenyl (S)	%				75	95	40-140			

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## QUALIFIERS

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-C Pace Analytical Services - Charlotte

PASI-I Pace Analytical Services - Indianapolis

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

N Tentatively identified compound (TIC) based on mass spectral library search

N2 The lab does not hold TNI accreditation for this parameter.

R1 RPD value was outside control limits.

S1 Surrogate recovery outside laboratory control limits (confirmed by re-analysis).

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92190355001	B-13-01 6FT	EPA 3546	OEXT/26002	EPA 8015 Modified	GCSV/16718
92190355002	DUPLICATE -1	EPA 3546	OEXT/26002	EPA 8015 Modified	GCSV/16718
92190355006	B-07-02 8'	EPA 3546	OEXT/26043	EPA 8015 Modified	GCSV/16735
92190355007	B-07-06 10'	EPA 3546	OEXT/26043	EPA 8015 Modified	GCSV/16735
92190355003	B-16/17-01	EPA 8015 - Alcohol-Glycol	GCSV/12153		
92190355004	B-18-01	EPA 8015 - Alcohol-Glycol	GCSV/12153		
92190355005	DUPLICATE-2	EPA 8015 - Alcohol-Glycol	GCSV/12153		
92190355006	B-07-02 8'	MADEP EPH	OEXT/26076	MADEP EPH	GCSV/16765
92190355007	B-07-06 10'	MADEP EPH	OEXT/26076	MADEP EPH	GCSV/16765
92190355003	B-16/17-01	MADEP EPH	OEXT/26031	MADEP EPH	GCSV/16758
92190355004	B-18-01	MADEP EPH	OEXT/26031	MADEP EPH	GCSV/16758
92190355005	DUPLICATE-2	MADEP EPH	OEXT/26031	MADEP EPH	GCSV/16758
92190355001	B-13-01 6FT	EPA 5035A/5030B	GCV/7826	EPA 8015 Modified	GCV/7828
92190355002	DUPLICATE -1	EPA 5035A/5030B	GCV/7826	EPA 8015 Modified	GCV/7828
92190355006	B-07-02 8'	EPA 5035A/5030B	GCV/7833	EPA 8015 Modified	GCV/7834
92190355007	B-07-06 10'	EPA 5035A/5030B	GCV/7833	EPA 8015 Modified	GCV/7834
92190355006	B-07-02 8'	MADEP VPH	GCV/7860	MADEP VPH	GCV/7865
92190355007	B-07-06 10'	MADEP VPH	GCV/7860	MADEP VPH	GCV/7865
92190355003	B-16/17-01	MADEP VPH	GCV/7835		
92190355004	B-18-01	MADEP VPH	GCV/7835		
92190355005	DUPLICATE-2	MADEP VPH	GCV/7835		
92190355006	B-07-02 8'	EPA 3050	MPRP/15312	EPA 6010	ICP/13889
92190355007	B-07-06 10'	EPA 3050	MPRP/15312	EPA 6010	ICP/13889
92190355003	B-16/17-01	EPA 3010	MPRP/15285	EPA 6010	ICP/13867
92190355004	B-18-01	EPA 3010	MPRP/15285	EPA 6010	ICP/13867
92190355005	DUPLICATE-2	EPA 3010	MPRP/15285	EPA 6010	ICP/13867
92190355003	B-16/17-01	EPA 625	OEXT/26010	EPA 625	MSSV/8797
92190355004	B-18-01	EPA 625	OEXT/26010	EPA 625	MSSV/8797
92190355005	DUPLICATE-2	EPA 625	OEXT/26010	EPA 625	MSSV/8797
92190355006	B-07-02 8'	EPA 3546	OEXT/26015	EPA 8270	MSSV/8785
92190355007	B-07-06 10'	EPA 3546	OEXT/26015	EPA 8270	MSSV/8785
92190355003	B-16/17-01	SM 6200B	MSV/25905		
92190355004	B-18-01	SM 6200B	MSV/25905		
92190355005	DUPLICATE-2	SM 6200B	MSV/25905		
92190355003	B-16/17-01	EPA 8260	MSV/25862		
92190355004	B-18-01	EPA 8260	MSV/25862		
92190355005	DUPLICATE-2	EPA 8260	MSV/25862		
92190355006	B-07-02 8'	EPA 8260	MSV/25855		
92190355007	B-07-06 10'	EPA 8260	MSV/25855		
92190355001	B-13-01 6FT	ASTM D2974-87	PMST/6289		
92190355002	DUPLICATE -1	ASTM D2974-87	PMST/6289		

### REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FAYETTEVILLE PSA'S 33727.1.1

Pace Project No.: 92190355

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92190355006	B-07-02 8'	ASTM D2974-87	PMST/6289		
92190355007	B-07-06 10'	ASTM D2974-87	PMST/6289		

## REPORT OF LABORATORY ANALYSIS

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Client Name: Schabel Eng.

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Optional  
Proj. Due Date:  
Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used: IR Gun T1102 T1301    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Temp Correction Factor    T1102: No Correction    T1301: No Correction

Corrected Cooler Temp.: 5.8 °C    Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: JD 2/20/14

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. Reviewed 2 extra samples not on Col EPH, metals by 8270, UPH kit, and 8260 kit not on Col. Sample #1 ID-B-07-07 & 2/18/14 at 1620
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. Sample #2 ID-B-07-06 15 2/18/14 at 1610
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples checked for dechlorination:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?    Y / I / N

Person Contacted: Ben Bradley    Date/Time: 2/20/14

Comments/ Resolution: Ben informed to analyze extra samples for: DRO, GRO, 8260, 8270, Cr+Pb, UPH, + Spd. Kit

SCURF Review: [Signature]    Date: 2/20/14  
SRF Review: [Signature]    Date: 2/21/14

**WO# : 92190355**



92190355

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



www.pacelabs.com

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1  
1785329

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: <b>Schmal Engineering</b>	Report To: <b>Ben Bradley</b>	Attention:	Address: <b>115 Elm St 33727.1.1</b>	REGULATORY AGENCY	<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER
Address: <b>1-A Oak Branch Dr Greensboro, NC 27407</b>	Copy To:	Address:	Reference:	<input type="checkbox"/> STATE:	
Email To: <b>Bradley@schmaleng.com</b>	Purchase Order No.:	Pace Order:	Pace Project Manager:	Site Location	
Phone:	Project Name: <b>Fayetteville PSA</b>	Pace Profile #:			
Fax:	Project Number: <b>B-4499</b>				
Requested Due Date/AT:					

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol				
1	B-13-01 6FT	DW	2-19	2:15		4											001
2	Duplicate - 1	WT	2-19	13:00													002
3	B-16/17-01	WT	2-19	14:30													003
4	B-18-01	WT	2-19														004
5	Duplicate - 2	WT	2-19														005
6																	006
7																	007
8																	
9																	
10																	
11																	
12																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<b>Bennymin L Bradley</b>	2-19	16:15	<b>Earl R R...</b>	2/25/14	9:30	5.8 4 4 4

SAMPLER NAME AND SIGNATURE		DATE Signed (MM/DD/YY):
PRINT Name of SAMPLER:		
SIGNATURE of SAMPLER:		
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)
		Samples Intact (N/A)

ORIGINAL

\*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**

February 24, 2014

Kevin Godwin  
Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville NC 28078

TEL: (704) 875-9092  
FAX: (704) 875-9091

RE: 92190355

Dear Kevin Godwin:

Order No: 1402F81

Analytical Environmental Services, Inc. received 3 samples on 2/20/2014 10:25:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest  
Project Manager

1402F81



**Chain of Custody**

Workorder: 92190355      Workorder Name: FAYETTEVILLE PSA'S 33727.1.1      Results Requested 3/6/2014

Report Invoice To: Subcontract To: Requested Analysis

Kevin Godwin  
 Pace Analytical Charlotte  
 9800 Kincey Ave. Suite 100  
 Huntersville, NC 28078  
 Phone (704)875-9092  
 Email: kevin.godwin@pacelabs.com

P.O. KR6 13345

AES

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Requested Analysis	LAB USE ONLY
					U	P		
1	B-16/17-01	2/19/2014 13:00	92190355003	Water	2			
2	B-18-01	2/19/2014 14:30	92190355004	Water	2			
3	DUPLICATE-2	2/19/2014 00:00	92190355005	Water	2			
4								
5								

XXX Forensik 835

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Y or N	Samples Intact	Y or N
1	Kevin Godwin	2/21/14 14:32							
2			DR. ALAN W. WIGGINS	2/21/14					
3			DR. BRYAN HUNTER	2:26pm					

Cooler Temperature on Receipt °C      Custody Seal Y or N      Received on Ice Y or N      Samples Intact Y or N

Comments



**Client:** Pace Analytical Services, Inc.

**Project:** 92190355

**Lab ID:** 1402F81

**Case Narrative**

An additional Chain of Custody was received from Kevin Godwin via email 2/21/2014 2:26pm and was included in the report.

**Analytical Environmental Services, Inc**

**Date:** 24-Feb-14

<b>Client:</b> Pace Analytical Services, Inc.	<b>Client Sample ID:</b> B-16/17-01
<b>Project Name:</b> 92190355	<b>Collection Date:</b> 2/19/2014 1:00:00 PM
<b>Lab ID:</b> 1402F81-001	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Carbonyl Compounds by HPLC SW8315A</b>								
Formaldehyde	75	50		ug/L	187291	1	02/21/2014 14:39	RF

---

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Analytical Environmental Services, Inc**

Date: 24-Feb-14

<b>Client:</b> Pace Analytical Services, Inc.	<b>Client Sample ID:</b> B-18-01
<b>Project Name:</b> 92190355	<b>Collection Date:</b> 2/19/2014 2:30:00 PM
<b>Lab ID:</b> 1402F81-002	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Carbonyl Compounds by HPLC SW8315A</b>								
Formaldehyde	180	50		ug/L	187291	1	02/21/2014 14:53	RF

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 24-Feb-14

<b>Client:</b> Pace Analytical Services, Inc.	<b>Client Sample ID:</b> DUPLICATE-2
<b>Project Name:</b> 92190355	<b>Collection Date:</b> 2/19/2014
<b>Lab ID:</b> 1402F81-003	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
----------	--------	-----------------	------	-------	---------	-----------------	---------------	---------

**Carbonyl Compounds by HPLC SW8315A**

Formaldehyde	220	50		ug/L	187291	1	02/21/2014 15:07	RF
--------------	-----	----	--	------	--------	---	------------------	----

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Pace

Work Order Number 1402F81

Checklist completed by [Signature] Date 2.20.14

Carrier name: FedEx  UPS  Courier  Client  US Mail  Other

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Container/Temp Blank temperature in compliance? (4°C±2)\* Yes  No

Cooler #1 3.2 Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_ Cooler #4 \_\_\_\_\_ Cooler#5 \_\_\_\_\_ Cooler #6 \_\_\_\_\_

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Was TAT marked on the COC? Yes  No

Proceed with Standard TAT as per project history? Yes  No  Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No

Water - pH acceptable upon receipt? Yes  No  Not Applicable

Adjusted? \_\_\_\_\_ Checked by [Signature]

Sample Condition: Good  Other(Explain) \_\_\_\_\_

(For diffusive samples or AIHA lead) Is a known blank included? Yes  No

See Case Narrative for resolution of the Non-Conformance.

\* Samples do not have to comply with the given range for certain parameters.

**Client:** Pace Analytical Services, Inc.  
**Project:** 92190355  
**Lab Order:** 1402F81

**Dates Report**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date</b>	<b>Matrix</b>	<b>Test Name</b>	<b>TCLP Date</b>	<b>Prep Date</b>	<b>Analysis Date</b>
1402F81-001A	B-16/17-01	2/19/2014 1:00:00PM	Aqueous	Carbonyl Compounds by HPLC SW8315		02/20/2014	02/21/2014
1402F81-002A	B-18-01	2/19/2014 2:30:00PM	Aqueous	Carbonyl Compounds by HPLC SW8315		02/20/2014	02/21/2014
1402F81-003A	DUPLICATE-2	2/19/2014 12:00:00AM	Aqueous	Carbonyl Compounds by HPLC SW8315		02/20/2014	02/21/2014

Client: Pace Analytical Services, Inc.  
 Project Name: 92190355  
 Workorder: 1402F81

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 187291

Sample ID: <b>MB-187291</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>02/20/2014</b>	Run No: <b>261755</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Carbonyl Compounds by HPLC SW8315A</b>	BatchID: <b>187291</b>	Analysis Date: <b>02/21/2014</b>	Seq No: <b>5503066</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Formaldehyde

BRL 50

Sample ID: <b>LCS-187291</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>02/20/2014</b>	Run No: <b>261755</b>							
SampleType: <b>LCS</b>	TestCode: <b>Carbonyl Compounds by HPLC SW8315A</b>	BatchID: <b>187291</b>	Analysis Date: <b>02/21/2014</b>	Seq No: <b>5503067</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Formaldehyde

1064 50 1000 16.41 105 70 130

Sample ID: <b>1402F30-001AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>02/20/2014</b>	Run No: <b>261755</b>							
SampleType: <b>MS</b>	TestCode: <b>Carbonyl Compounds by HPLC SW8315A</b>	BatchID: <b>187291</b>	Analysis Date: <b>02/21/2014</b>	Seq No: <b>5503074</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Formaldehyde

1455 50 1000 632.7 82.2 42 124

Sample ID: <b>1402F30-001AMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>02/20/2014</b>	Run No: <b>261755</b>							
SampleType: <b>MSD</b>	TestCode: <b>Carbonyl Compounds by HPLC SW8315A</b>	BatchID: <b>187291</b>	Analysis Date: <b>02/21/2014</b>	Seq No: <b>5503077</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Formaldehyde

1360 50 1000 632.7 72.7 42 124 1455 6.72 29.4

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**APPENDIX F**

**MAY 15, 2014 SOIL LABORATORY ANALYTICAL  
RESULTS**

May 29, 2014

Chemical Testing Engineer  
Materials and Tests Unit  
1801 Blue Ridge Road  
Raleigh, NC 27607

RE: Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin  
kevin.godwin@pacelabs.com  
Project Manager

Enclosures

cc: Ben Bradley, Schnabel Engineering



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

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### Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
West Virginia Certification #: 357  
Virginia/VELAP Certification #: 460221

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### Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
West Virginia Certification #: 356  
Virginia/VELAP Certification #: 460222

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92201696001	B-18-01A (1-3 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696002	B-18-01A (5-7 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696003	B-18-02A (1-2 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696004	B-18-02A (4-5 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696005	B-18-03A (1-2 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696006	B-18-03A (4-5 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696007	B-18-04A (1-3 ft)	EPA 8015 Modified	JDW1	2	PASI-C

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696008	B-18-04A (5-7 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696009	B-18-05 (1-2 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696010	B-18-05 (4-5 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696011	B-18-06 (1-2 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696012	B-18-06 (4-5 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696013	B-18-07 (1-2 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696014	B-18-07 (4-5 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696015	B-18-08 (1-2 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696016	B-18-08 (4-5 ft)	MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696017	Dup-1	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C
92201696018	B-18-09 (1-2 ft)	EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92201696019	B-18-09 (4-5 ft)	ASTM D2974-87	AES	1	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
92201696020	B-18-10 (1-2 ft)	ASTM D2974-87	AES	1	PASI-C
		EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
92201696021	B-18-10 (4-5 ft)	ASTM D2974-87	AES	1	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
92201696022	B-18-11 (1-3 ft)	ASTM D2974-87	AES	1	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
92201696023	B-18-11 (5-7 ft)	ASTM D2974-87	AES	1	PASI-C
		EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
92201696024	B-18-12 (1-3 ft)	ASTM D2974-87	AES	1	PASI-C
		MADEP VPH	CAM	5	PASI-C
		EPA 6010	JMW	2	PASI-A
		EPA 8260	DLK	70	PASI-C
92201696025	B-18-12 (5-7 ft)	ASTM D2974-87	AES	1	PASI-C
		EPA 8015 Modified	JDW1	2	PASI-C
		MADEP EPH	JDW1	7	PASI-C
		EPA 8015 Modified	CAM	2	PASI-C
		MADEP VPH	CAM	5	PASI-C

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### SAMPLE ANALYTE COUNT

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JMW	2	PASI-A
		EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	AES	1	PASI-C

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

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**Method:** EPA 8015 Modified  
**Description:** 8015 GCS THC-Diesel  
**Client:** NCDOT South East  
**Date:** May 29, 2014

**General Information:**

13 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

**General Information:**

13 samples were analyzed for MADEP EPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with MADEP EPH with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: OEXT/27754

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-01A (5-7 ft) (Lab ID: 92201696002)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-02A (4-5 ft) (Lab ID: 92201696004)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-03A (4-5 ft) (Lab ID: 92201696006)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

Analyte Comments:

QC Batch: OEXT/27754

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-03A (4-5 ft) (Lab ID: 92201696006)
  - Aromatic (C11-C22)
- B-18-04A (1-3 ft) (Lab ID: 92201696007)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-05 (1-2 ft) (Lab ID: 92201696009)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-06 (1-2 ft) (Lab ID: 92201696011)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-07 (1-2 ft) (Lab ID: 92201696013)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-08 (1-2 ft) (Lab ID: 92201696015)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-09 (1-2 ft) (Lab ID: 92201696018)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-10 (1-2 ft) (Lab ID: 92201696020)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-11 (5-7 ft) (Lab ID: 92201696023)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- B-18-12 (5-7 ft) (Lab ID: 92201696025)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- BLANK (Lab ID: 1201798)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP EPH

**Description:** MADEP EPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

Analyte Comments:

QC Batch: OEXT/27754

N2: The lab does not hold TNI accreditation for this parameter.

- Dup-1 (Lab ID: 92201696017)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCS (Lab ID: 1201799)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)
- LCSD (Lab ID: 1201800)
  - Aliphatic (C09-C18)
  - Aliphatic (C19-C36)
  - Aromatic (C11-C22)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** EPA 8015 Modified

**Description:** Gasoline Range Organics

**Client:** NCDOT South East

**Date:** May 29, 2014

**General Information:**

13 samples were analyzed for EPA 8015 Modified. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

---

**Method:** MADEP VPH  
**Description:** VPH NC Soil  
**Client:** NCDOT South East  
**Date:** May 29, 2014

**General Information:**

25 samples were analyzed for MADEP VPH. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with MADEP VPH with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

QC Batch: GCV/8096

S0: Surrogate recovery outside laboratory control limits.

- B-18-04A (5-7 ft) (Lab ID: 92201696008)
- 4-Bromofluorobenzene (FID) (S)

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: GCV/8095

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-08 (4-5 ft) (Lab ID: 92201696016)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

---

**Method:** MADEP VPH  
**Description:** VPH NC Soil  
**Client:** NCDOT South East  
**Date:** May 29, 2014

Analyte Comments:

QC Batch: GCV/8095

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-08 (4-5 ft) (Lab ID: 92201696016)
  - Aromatic (C09-C10)
- BLANK (Lab ID: 1201786)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 1201787)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 1201788)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

QC Batch: GCV/8096

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-02A (1-2 ft) (Lab ID: 92201696003)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-02A (4-5 ft) (Lab ID: 92201696004)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-03A (1-2 ft) (Lab ID: 92201696005)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-03A (4-5 ft) (Lab ID: 92201696006)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-04A (1-3 ft) (Lab ID: 92201696007)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-04A (5-7 ft) (Lab ID: 92201696008)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-05 (1-2 ft) (Lab ID: 92201696009)
  - Aliphatic (C05-C08)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP VPH

**Description:** VPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

Analyte Comments:

QC Batch: GCV/8096

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-05 (1-2 ft) (Lab ID: 92201696009)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-05 (4-5 ft) (Lab ID: 92201696010)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-06 (1-2 ft) (Lab ID: 92201696011)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-06 (4-5 ft) (Lab ID: 92201696012)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- BLANK (Lab ID: 1201789)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 1201790)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 1201791)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

QC Batch: GCV/8112

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-01A (1-3 ft) (Lab ID: 92201696001)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-01A (5-7 ft) (Lab ID: 92201696002)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-07 (1-2 ft) (Lab ID: 92201696013)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP VPH

**Description:** VPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

Analyte Comments:

QC Batch: GCV/8112

N2: The lab does not hold TNI accreditation for this parameter.

- B-18-07 (4-5 ft) (Lab ID: 92201696014)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-08 (1-2 ft) (Lab ID: 92201696015)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-09 (1-2 ft) (Lab ID: 92201696018)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-09 (4-5 ft) (Lab ID: 92201696019)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-10 (1-2 ft) (Lab ID: 92201696020)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-10 (4-5 ft) (Lab ID: 92201696021)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-11 (1-3 ft) (Lab ID: 92201696022)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-11 (5-7 ft) (Lab ID: 92201696023)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-12 (1-3 ft) (Lab ID: 92201696024)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- B-18-12 (5-7 ft) (Lab ID: 92201696025)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- BLANK (Lab ID: 1204081)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** MADEP VPH

**Description:** VPH NC Soil

**Client:** NCDOT South East

**Date:** May 29, 2014

Analyte Comments:

QC Batch: GCV/8112

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 1204081)
  - Aromatic (C09-C10)
- Dup-1 (Lab ID: 92201696017)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCS (Lab ID: 1204082)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)
- LCSD (Lab ID: 1204083)
  - Aliphatic (C05-C08)
  - Aliphatic (C09-C12)
  - Aromatic (C09-C10)

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** EPA 6010

**Description:** 6010 MET ICP

**Client:** NCDOT South East

**Date:** May 29, 2014

**General Information:**

25 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/16030

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92201696021

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1205893)
  - Lead

R1: RPD value was outside control limits.

- MSD (Lab ID: 1205893)
  - Lead

**Additional Comments:**

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

---

**Method:** EPA 8270  
**Description:** 8270 MSSV Microwave  
**Client:** NCDOT South East  
**Date:** May 29, 2014

**General Information:**

13 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** EPA 8260

**Description:** 8260/5035A Volatile Organics

**Client:** NCDOT South East

**Date:** May 29, 2014

**General Information:**

25 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/26860

LO: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1201943)
- Vinyl acetate

QC Batch: MSV/26866

LO: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1202082)
- Trichloroethene

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/26866

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92201830001,92201832001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1202083)
  - Dibromomethane
  - Tetrachloroethene
- MS (Lab ID: 1202085)
  - Carbon tetrachloride

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## PROJECT NARRATIVE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

---

**Method:** EPA 8260

**Description:** 8260/5035A Volatile Organics

**Client:** NCDOT South East

**Date:** May 29, 2014

QC Batch: MSV/26866

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92201830001,92201832001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Dibromomethane
- Tetrachloroethene
- MSD (Lab ID: 1202084)
  - Dibromomethane
  - Vinyl acetate
- MSD (Lab ID: 1202086)
  - Bromochloromethane
  - Dibromomethane
  - Hexachloro-1,3-butadiene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1202084)
  - Bromomethane
- MSD (Lab ID: 1202086)
  - Hexachloro-1,3-butadiene

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (1-3 ft)**      **Lab ID: 92201696001**      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b> Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 20:25		N2
Aliphatic (C09-C12)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 20:25		N2
Aromatic (C09-C10)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 20:25		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	118 %		70-130	1	05/21/14 16:56	05/21/14 20:25	460-00-4	
4-Bromofluorobenzene (PID) (S)	117 %		70-130	1	05/21/14 16:56	05/21/14 20:25	460-00-4	
<b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	<b>1.0</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 19:44	7440-47-3	
Lead	<b>1.2</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 19:44	7439-92-1	
<b>8260/5035A Volatile Organics</b> Analytical Method: EPA 8260								
Acetone	ND	ug/kg	73.0	1		05/19/14 20:58	67-64-1	
Benzene	ND	ug/kg	3.6	1		05/19/14 20:58	71-43-2	
Bromobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	108-86-1	
Bromochloromethane	ND	ug/kg	3.6	1		05/19/14 20:58	74-97-5	
Bromodichloromethane	ND	ug/kg	3.6	1		05/19/14 20:58	75-27-4	
Bromoform	ND	ug/kg	3.6	1		05/19/14 20:58	75-25-2	
Bromomethane	ND	ug/kg	7.3	1		05/19/14 20:58	74-83-9	
2-Butanone (MEK)	ND	ug/kg	73.0	1		05/19/14 20:58	78-93-3	
n-Butylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	104-51-8	
sec-Butylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	135-98-8	
tert-Butylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	98-06-6	
Carbon tetrachloride	ND	ug/kg	3.6	1		05/19/14 20:58	56-23-5	
Chlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	108-90-7	
Chloroethane	ND	ug/kg	7.3	1		05/19/14 20:58	75-00-3	
Chloroform	ND	ug/kg	3.6	1		05/19/14 20:58	67-66-3	
Chloromethane	ND	ug/kg	7.3	1		05/19/14 20:58	74-87-3	
2-Chlorotoluene	ND	ug/kg	3.6	1		05/19/14 20:58	95-49-8	
4-Chlorotoluene	ND	ug/kg	3.6	1		05/19/14 20:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.6	1		05/19/14 20:58	96-12-8	
Dibromochloromethane	ND	ug/kg	3.6	1		05/19/14 20:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	3.6	1		05/19/14 20:58	106-93-4	
Dibromomethane	ND	ug/kg	3.6	1		05/19/14 20:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	7.3	1		05/19/14 20:58	75-71-8	
1,1-Dichloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	75-34-3	
1,2-Dichloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	107-06-2	
1,1-Dichloroethene	ND	ug/kg	3.6	1		05/19/14 20:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	3.6	1		05/19/14 20:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	3.6	1		05/19/14 20:58	156-60-5	
1,2-Dichloropropane	ND	ug/kg	3.6	1		05/19/14 20:58	78-87-5	
1,3-Dichloropropane	ND	ug/kg	3.6	1		05/19/14 20:58	142-28-9	
2,2-Dichloropropane	ND	ug/kg	3.6	1		05/19/14 20:58	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (1-3 ft)      Lab ID: 92201696001      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	3.6	1		05/19/14 20:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	3.6	1		05/19/14 20:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	3.6	1		05/19/14 20:58	10061-02-6	
Diisopropyl ether	ND	ug/kg	3.6	1		05/19/14 20:58	108-20-3	
Ethylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	3.6	1		05/19/14 20:58	87-68-3	
2-Hexanone	ND	ug/kg	36.5	1		05/19/14 20:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	3.6	1		05/19/14 20:58	98-82-8	
p-Isopropyltoluene	ND	ug/kg	3.6	1		05/19/14 20:58	99-87-6	
Methylene Chloride	ND	ug/kg	14.6	1		05/19/14 20:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	36.5	1		05/19/14 20:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	3.6	1		05/19/14 20:58	1634-04-4	
Naphthalene	ND	ug/kg	3.6	1		05/19/14 20:58	91-20-3	
n-Propylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	103-65-1	
Styrene	ND	ug/kg	3.6	1		05/19/14 20:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	79-34-5	
Tetrachloroethene	ND	ug/kg	3.6	1		05/19/14 20:58	127-18-4	
Toluene	ND	ug/kg	3.6	1		05/19/14 20:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	3.6	1		05/19/14 20:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	3.6	1		05/19/14 20:58	79-00-5	
Trichloroethene	ND	ug/kg	3.6	1		05/19/14 20:58	79-01-6	
Trichlorofluoromethane	ND	ug/kg	3.6	1		05/19/14 20:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	3.6	1		05/19/14 20:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	3.6	1		05/19/14 20:58	108-67-8	
Vinyl acetate	ND	ug/kg	36.5	1		05/19/14 20:58	108-05-4	
Vinyl chloride	ND	ug/kg	7.3	1		05/19/14 20:58	75-01-4	
Xylene (Total)	ND	ug/kg	7.3	1		05/19/14 20:58	1330-20-7	
m&p-Xylene	ND	ug/kg	7.3	1		05/19/14 20:58	179601-23-1	
o-Xylene	ND	ug/kg	3.6	1		05/19/14 20:58	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		05/19/14 20:58	2037-26-5	
4-Bromofluorobenzene (S)	94 %		70-130	1		05/19/14 20:58	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		70-132	1		05/19/14 20:58	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>9.9 %</b>		0.10	1		05/20/14 15:51		

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (5-7 ft)      Lab ID: 92201696002      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.4	1	05/16/14 16:20	05/20/14 21:23	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	79 %		41-119	1	05/16/14 16:20	05/20/14 21:23	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	10.9	1	05/19/14 07:05	05/20/14 23:54		N2
Aliphatic (C19-C36)	ND	mg/kg	10.9	1	05/19/14 07:05	05/20/14 23:54		N2
Aromatic (C11-C22)	ND	mg/kg	10.9	1	05/19/14 07:05	05/20/14 21:12		N2
<b>Surrogates</b>								
Nonatriacontane (S)	68 %		40-140	1	05/19/14 07:05	05/20/14 23:54	7194-86-7	
o-Terphenyl (S)	72 %		40-140	1	05/19/14 07:05	05/20/14 21:12	84-15-1	
2-Fluorobiphenyl (S)	74 %		40-140	1	05/19/14 07:05	05/20/14 21:12	321-60-8	
2-Bromonaphthalene (S)	77 %		40-140	1	05/19/14 07:05	05/20/14 21:12	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	6.0	1	05/25/14 12:45	05/25/14 20:11	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	86 %		70-167	1	05/25/14 12:45	05/25/14 20:11	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.2	1	05/21/14 16:56	05/21/14 20:48		N2
Aliphatic (C09-C12)	ND	mg/kg	3.2	1	05/21/14 16:56	05/21/14 20:48		N2
Aromatic (C09-C10)	ND	mg/kg	3.2	1	05/21/14 16:56	05/21/14 20:48		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	111 %		70-130	1	05/21/14 16:56	05/21/14 20:48	460-00-4	
4-Bromofluorobenzene (PID) (S)	109 %		70-130	1	05/21/14 16:56	05/21/14 20:48	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	1.2	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:03	7440-47-3	
Lead	1.6	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:03	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	83-32-9	
Acenaphthylene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	208-96-8	
Aniline	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	62-53-3	
Anthracene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	120-12-7	
Benzo(a)anthracene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	56-55-3	
Benzo(a)pyrene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	207-08-9	
Benzoic Acid	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	65-85-0	
Benzyl alcohol	ND	ug/kg	718	1	05/19/14 07:57	05/23/14 16:33	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	101-55-3	
Butylbenzylphthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	718	1	05/19/14 07:57	05/23/14 16:33	59-50-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (5-7 ft)**      **Lab ID: 92201696002**      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	108-60-1	
2-Chloronaphthalene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	91-58-7	
2-Chlorophenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	7005-72-3	
Chrysene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	53-70-3	
Dibenzofuran	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	120-83-2	
Diethylphthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	105-67-9	
Dimethylphthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	131-11-3	
Di-n-butylphthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	718	1	05/19/14 07:57	05/23/14 16:33	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	606-20-2	
Di-n-octylphthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	117-81-7	
Fluoranthene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	206-44-0	
Fluorene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	87-68-3	
Hexachlorobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	77-47-4	
Hexachloroethane	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	193-39-5	
Isophorone	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	78-59-1	
1-Methylnaphthalene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	90-12-0	
2-Methylnaphthalene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33		
Naphthalene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	91-20-3	
2-Nitroaniline	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	88-74-4	
3-Nitroaniline	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	99-09-2	
4-Nitroaniline	ND	ug/kg	718	1	05/19/14 07:57	05/23/14 16:33	100-01-6	
Nitrobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	98-95-3	
2-Nitrophenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	88-75-5	
4-Nitrophenol	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (5-7 ft)**      **Lab ID: 92201696002**      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	86-30-6	
Pentachlorophenol	ND	ug/kg	1800	1	05/19/14 07:57	05/23/14 16:33	87-86-5	
Phenanthrene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	85-01-8	
Phenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	108-95-2	
Pyrene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	359	1	05/19/14 07:57	05/23/14 16:33	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	63 %		23-110	1	05/19/14 07:57	05/23/14 16:33	4165-60-0	
2-Fluorobiphenyl (S)	73 %		30-110	1	05/19/14 07:57	05/23/14 16:33	321-60-8	
Terphenyl-d14 (S)	67 %		28-110	1	05/19/14 07:57	05/23/14 16:33	1718-51-0	
Phenol-d6 (S)	70 %		22-110	1	05/19/14 07:57	05/23/14 16:33	13127-88-3	
2-Fluorophenol (S)	65 %		13-110	1	05/19/14 07:57	05/23/14 16:33	367-12-4	
2,4,6-Tribromophenol (S)	78 %		27-110	1	05/19/14 07:57	05/23/14 16:33	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	101	1		05/19/14 21:18	67-64-1	
Benzene	ND	ug/kg	5.0	1		05/19/14 21:18	71-43-2	
Bromobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1		05/19/14 21:18	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1		05/19/14 21:18	75-27-4	
Bromoform	ND	ug/kg	5.0	1		05/19/14 21:18	75-25-2	
Bromomethane	ND	ug/kg	10.1	1		05/19/14 21:18	74-83-9	
2-Butanone (MEK)	ND	ug/kg	101	1		05/19/14 21:18	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	1		05/19/14 21:18	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	108-90-7	
Chloroethane	ND	ug/kg	10.1	1		05/19/14 21:18	75-00-3	
Chloroform	ND	ug/kg	5.0	1		05/19/14 21:18	67-66-3	
Chloromethane	ND	ug/kg	10.1	1		05/19/14 21:18	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1		05/19/14 21:18	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1		05/19/14 21:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	1		05/19/14 21:18	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1		05/19/14 21:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1		05/19/14 21:18	106-93-4	
Dibromomethane	ND	ug/kg	5.0	1		05/19/14 21:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.1	1		05/19/14 21:18	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 21:18	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-01A (5-7 ft)**      **Lab ID: 92201696002**      Collected: 05/15/14 11:40      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 21:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 21:18	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 21:18	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 21:18	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 21:18	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 21:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 21:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 21:18	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1		05/19/14 21:18	108-20-3	
Ethylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	1		05/19/14 21:18	87-68-3	
2-Hexanone	ND	ug/kg	50.5	1		05/19/14 21:18	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1		05/19/14 21:18	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1		05/19/14 21:18	99-87-6	
Methylene Chloride	ND	ug/kg	20.2	1		05/19/14 21:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.5	1		05/19/14 21:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1		05/19/14 21:18	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1		05/19/14 21:18	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	103-65-1	
Styrene	ND	ug/kg	5.0	1		05/19/14 21:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1		05/19/14 21:18	127-18-4	
Toluene	ND	ug/kg	5.0	1		05/19/14 21:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1		05/19/14 21:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	1		05/19/14 21:18	79-00-5	
Trichloroethene	ND	ug/kg	5.0	1		05/19/14 21:18	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	1		05/19/14 21:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1		05/19/14 21:18	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1		05/19/14 21:18	108-67-8	
Vinyl acetate	ND	ug/kg	50.5	1		05/19/14 21:18	108-05-4	
Vinyl chloride	ND	ug/kg	10.1	1		05/19/14 21:18	75-01-4	
Xylene (Total)	ND	ug/kg	10.1	1		05/19/14 21:18	1330-20-7	
m&p-Xylene	ND	ug/kg	10.1	1		05/19/14 21:18	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1		05/19/14 21:18	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		05/19/14 21:18	2037-26-5	
4-Bromofluorobenzene (S)	98 %		70-130	1		05/19/14 21:18	460-00-4	
1,2-Dichloroethane-d4 (S)	111 %		70-132	1		05/19/14 21:18	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture	<b>8.1 %</b>		0.10	1		05/20/14 15:51		
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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-02A (1-2 ft)      Lab ID: 92201696003      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.3	1	05/20/14 16:47	05/20/14 20:17		N2
Aliphatic (C09-C12)	ND	mg/kg	2.3	1	05/20/14 16:47	05/20/14 20:17		N2
Aromatic (C09-C10)	ND	mg/kg	2.3	1	05/20/14 16:47	05/20/14 20:17		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	121	%	70-130	1	05/20/14 16:47	05/20/14 20:17	460-00-4	
4-Bromofluorobenzene (PID) (S)	113	%	70-130	1	05/20/14 16:47	05/20/14 20:17	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	4.3	mg/kg	0.39	1	05/22/14 14:40	05/23/14 20:06	7440-47-3	
Lead	28.8	mg/kg	0.39	1	05/22/14 14:40	05/23/14 20:06	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	93.7	1		05/19/14 21:37	67-64-1	
Benzene	ND	ug/kg	4.7	1		05/19/14 21:37	71-43-2	
Bromobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	108-86-1	
Bromochloromethane	ND	ug/kg	4.7	1		05/19/14 21:37	74-97-5	
Bromodichloromethane	ND	ug/kg	4.7	1		05/19/14 21:37	75-27-4	
Bromoform	ND	ug/kg	4.7	1		05/19/14 21:37	75-25-2	
Bromomethane	ND	ug/kg	9.4	1		05/19/14 21:37	74-83-9	
2-Butanone (MEK)	ND	ug/kg	93.7	1		05/19/14 21:37	78-93-3	
n-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.7	1		05/19/14 21:37	56-23-5	
Chlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	108-90-7	
Chloroethane	ND	ug/kg	9.4	1		05/19/14 21:37	75-00-3	
Chloroform	ND	ug/kg	4.7	1		05/19/14 21:37	67-66-3	
Chloromethane	ND	ug/kg	9.4	1		05/19/14 21:37	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.7	1		05/19/14 21:37	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.7	1		05/19/14 21:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.7	1		05/19/14 21:37	96-12-8	
Dibromochloromethane	ND	ug/kg	4.7	1		05/19/14 21:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.7	1		05/19/14 21:37	106-93-4	
Dibromomethane	ND	ug/kg	4.7	1		05/19/14 21:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.4	1		05/19/14 21:37	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 21:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 21:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 21:37	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 21:37	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 21:37	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 21:37	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

**Sample: B-18-02A (1-2 ft)**      **Lab ID: 92201696003**      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 21:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 21:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 21:37	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.7	1		05/19/14 21:37	108-20-3	
Ethylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.7	1		05/19/14 21:37	87-68-3	
2-Hexanone	ND	ug/kg	46.8	1		05/19/14 21:37	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.7	1		05/19/14 21:37	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.7	1		05/19/14 21:37	99-87-6	
Methylene Chloride	ND	ug/kg	18.7	1		05/19/14 21:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.8	1		05/19/14 21:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.7	1		05/19/14 21:37	1634-04-4	
Naphthalene	ND	ug/kg	4.7	1		05/19/14 21:37	91-20-3	
n-Propylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	103-65-1	
Styrene	ND	ug/kg	4.7	1		05/19/14 21:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	79-34-5	
Tetrachloroethene	ND	ug/kg	4.7	1		05/19/14 21:37	127-18-4	
Toluene	ND	ug/kg	4.7	1		05/19/14 21:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.7	1		05/19/14 21:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.7	1		05/19/14 21:37	79-00-5	
Trichloroethene	ND	ug/kg	4.7	1		05/19/14 21:37	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.7	1		05/19/14 21:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.7	1		05/19/14 21:37	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.7	1		05/19/14 21:37	108-67-8	
Vinyl acetate	ND	ug/kg	46.8	1		05/19/14 21:37	108-05-4	
Vinyl chloride	ND	ug/kg	9.4	1		05/19/14 21:37	75-01-4	
Xylene (Total)	ND	ug/kg	9.4	1		05/19/14 21:37	1330-20-7	
m&p-Xylene	ND	ug/kg	9.4	1		05/19/14 21:37	179601-23-1	
o-Xylene	ND	ug/kg	4.7	1		05/19/14 21:37	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		05/19/14 21:37	2037-26-5	
4-Bromofluorobenzene (S)	100 %		70-130	1		05/19/14 21:37	460-00-4	
1,2-Dichloroethane-d4 (S)	99 %		70-132	1		05/19/14 21:37	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>10.3 %</b>		0.10	1		05/20/14 15:51		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-02A (4-5 ft)**      **Lab ID: 92201696004**      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.7	1	05/16/14 16:20	05/20/14 21:47	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	84 %		41-119	1	05/16/14 16:20	05/20/14 21:47	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.5	1	05/19/14 07:05	05/21/14 00:26		N2
Aliphatic (C19-C36)	ND	mg/kg	11.5	1	05/19/14 07:05	05/21/14 00:26		N2
Aromatic (C11-C22)	ND	mg/kg	11.5	1	05/19/14 07:05	05/20/14 21:45		N2
<b>Surrogates</b>								
Nonatriacontane (S)	65 %		40-140	1	05/19/14 07:05	05/21/14 00:26	7194-86-7	
o-Terphenyl (S)	69 %		40-140	1	05/19/14 07:05	05/20/14 21:45	84-15-1	
2-Fluorobiphenyl (S)	86 %		40-140	1	05/19/14 07:05	05/20/14 21:45	321-60-8	
2-Bromonaphthalene (S)	94 %		40-140	1	05/19/14 07:05	05/20/14 21:45	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.7	1	05/25/14 12:45	05/25/14 20:34	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	87 %		70-167	1	05/25/14 12:45	05/25/14 20:34	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 20:40		N2
Aliphatic (C09-C12)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 20:40		N2
Aromatic (C09-C10)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 20:40		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	122 %		70-130	1	05/20/14 16:47	05/20/14 20:40	460-00-4	
4-Bromofluorobenzene (PID) (S)	117 %		70-130	1	05/20/14 16:47	05/20/14 20:40	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>3.0</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:09	7440-47-3	
Lead	<b>10.4</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:09	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	83-32-9	
Acenaphthylene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	208-96-8	
Aniline	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	62-53-3	
Anthracene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	120-12-7	
Benzo(a)anthracene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	56-55-3	
Benzo(a)pyrene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	207-08-9	
Benzoic Acid	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	65-85-0	
Benzyl alcohol	ND	ug/kg	758	1	05/19/14 07:57	05/23/14 18:06	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	101-55-3	
Butylbenzylphthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	758	1	05/19/14 07:57	05/23/14 18:06	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-02A (4-5 ft)**      **Lab ID: 92201696004**      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	108-60-1	
2-Chloronaphthalene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	91-58-7	
2-Chlorophenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	7005-72-3	
Chrysene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	53-70-3	
Dibenzofuran	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	120-83-2	
Diethylphthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	105-67-9	
Dimethylphthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	131-11-3	
Di-n-butylphthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	758	1	05/19/14 07:57	05/23/14 18:06	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	606-20-2	
Di-n-octylphthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	117-81-7	
Fluoranthene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	206-44-0	
Fluorene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	87-68-3	
Hexachlorobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	77-47-4	
Hexachloroethane	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	193-39-5	
Isophorone	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	78-59-1	
1-Methylnaphthalene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	90-12-0	
2-Methylnaphthalene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06		
Naphthalene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	91-20-3	
2-Nitroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	88-74-4	
3-Nitroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	99-09-2	
4-Nitroaniline	ND	ug/kg	758	1	05/19/14 07:57	05/23/14 18:06	100-01-6	
Nitrobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	98-95-3	
2-Nitrophenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	88-75-5	
4-Nitrophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-02A (4-5 ft)**      **Lab ID: 92201696004**      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	86-30-6	
Pentachlorophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:06	87-86-5	
Phenanthrene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	85-01-8	
Phenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	108-95-2	
Pyrene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	379	1	05/19/14 07:57	05/23/14 18:06	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	60 %		23-110	1	05/19/14 07:57	05/23/14 18:06	4165-60-0	
2-Fluorobiphenyl (S)	57 %		30-110	1	05/19/14 07:57	05/23/14 18:06	321-60-8	
Terphenyl-d14 (S)	46 %		28-110	1	05/19/14 07:57	05/23/14 18:06	1718-51-0	
Phenol-d6 (S)	64 %		22-110	1	05/19/14 07:57	05/23/14 18:06	13127-88-3	
2-Fluorophenol (S)	61 %		13-110	1	05/19/14 07:57	05/23/14 18:06	367-12-4	
2,4,6-Tribromophenol (S)	71 %		27-110	1	05/19/14 07:57	05/23/14 18:06	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	88.6	1		05/19/14 21:57	67-64-1	
Benzene	ND	ug/kg	4.4	1		05/19/14 21:57	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1		05/19/14 21:57	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1		05/19/14 21:57	75-27-4	
Bromoform	ND	ug/kg	4.4	1		05/19/14 21:57	75-25-2	
Bromomethane	ND	ug/kg	8.9	1		05/19/14 21:57	74-83-9	
2-Butanone (MEK)	ND	ug/kg	88.6	1		05/19/14 21:57	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	1		05/19/14 21:57	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	108-90-7	
Chloroethane	ND	ug/kg	8.9	1		05/19/14 21:57	75-00-3	
Chloroform	ND	ug/kg	4.4	1		05/19/14 21:57	67-66-3	
Chloromethane	ND	ug/kg	8.9	1		05/19/14 21:57	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1		05/19/14 21:57	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1		05/19/14 21:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	1		05/19/14 21:57	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1		05/19/14 21:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1		05/19/14 21:57	106-93-4	
Dibromomethane	ND	ug/kg	4.4	1		05/19/14 21:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.9	1		05/19/14 21:57	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1		05/19/14 21:57	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-02A (4-5 ft)**      **Lab ID: 92201696004**      Collected: 05/15/14 12:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.4	1		05/19/14 21:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1		05/19/14 21:57	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1		05/19/14 21:57	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1		05/19/14 21:57	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1		05/19/14 21:57	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.4	1		05/19/14 21:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1		05/19/14 21:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1		05/19/14 21:57	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1		05/19/14 21:57	108-20-3	
Ethylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1		05/19/14 21:57	87-68-3	
2-Hexanone	ND	ug/kg	44.3	1		05/19/14 21:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1		05/19/14 21:57	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.4	1		05/19/14 21:57	99-87-6	
Methylene Chloride	ND	ug/kg	17.7	1		05/19/14 21:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.3	1		05/19/14 21:57	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1		05/19/14 21:57	1634-04-4	
Naphthalene	ND	ug/kg	4.4	1		05/19/14 21:57	91-20-3	
n-Propylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	103-65-1	
Styrene	ND	ug/kg	4.4	1		05/19/14 21:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	79-34-5	
Tetrachloroethene	ND	ug/kg	4.4	1		05/19/14 21:57	127-18-4	
Toluene	ND	ug/kg	4.4	1		05/19/14 21:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1		05/19/14 21:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1		05/19/14 21:57	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1		05/19/14 21:57	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	1		05/19/14 21:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1		05/19/14 21:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1		05/19/14 21:57	108-67-8	
Vinyl acetate	ND	ug/kg	44.3	1		05/19/14 21:57	108-05-4	
Vinyl chloride	ND	ug/kg	8.9	1		05/19/14 21:57	75-01-4	
Xylene (Total)	ND	ug/kg	8.9	1		05/19/14 21:57	1330-20-7	
m&p-Xylene	ND	ug/kg	8.9	1		05/19/14 21:57	179601-23-1	
o-Xylene	ND	ug/kg	4.4	1		05/19/14 21:57	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		05/19/14 21:57	2037-26-5	
4-Bromofluorobenzene (S)	92 %		70-130	1		05/19/14 21:57	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		70-132	1		05/19/14 21:57	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture	<b>12.9 %</b>	0.10	1	05/20/14 15:51
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### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-03A (1-2 ft)**      **Lab ID: 92201696005**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.6	1	05/20/14 16:47	05/20/14 21:03		N2
Aliphatic (C09-C12)	ND	mg/kg	2.6	1	05/20/14 16:47	05/20/14 21:03		N2
Aromatic (C09-C10)	ND	mg/kg	2.6	1	05/20/14 16:47	05/20/14 21:03		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	119 %		70-130	1	05/20/14 16:47	05/20/14 21:03	460-00-4	
4-Bromofluorobenzene (PID) (S)	114 %		70-130	1	05/20/14 16:47	05/20/14 21:03	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	11.1	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:12	7440-47-3	
Lead	11.7	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:12	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	94.0	1		05/19/14 22:17	67-64-1	
Benzene	ND	ug/kg	4.7	1		05/19/14 22:17	71-43-2	
Bromobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	108-86-1	
Bromochloromethane	ND	ug/kg	4.7	1		05/19/14 22:17	74-97-5	
Bromodichloromethane	ND	ug/kg	4.7	1		05/19/14 22:17	75-27-4	
Bromoform	ND	ug/kg	4.7	1		05/19/14 22:17	75-25-2	
Bromomethane	ND	ug/kg	9.4	1		05/19/14 22:17	74-83-9	
2-Butanone (MEK)	ND	ug/kg	94.0	1		05/19/14 22:17	78-93-3	
n-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.7	1		05/19/14 22:17	56-23-5	
Chlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	108-90-7	
Chloroethane	ND	ug/kg	9.4	1		05/19/14 22:17	75-00-3	
Chloroform	ND	ug/kg	4.7	1		05/19/14 22:17	67-66-3	
Chloromethane	ND	ug/kg	9.4	1		05/19/14 22:17	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.7	1		05/19/14 22:17	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.7	1		05/19/14 22:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.7	1		05/19/14 22:17	96-12-8	
Dibromochloromethane	ND	ug/kg	4.7	1		05/19/14 22:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.7	1		05/19/14 22:17	106-93-4	
Dibromomethane	ND	ug/kg	4.7	1		05/19/14 22:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.4	1		05/19/14 22:17	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 22:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.7	1		05/19/14 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 22:17	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 22:17	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.7	1		05/19/14 22:17	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

**Sample: B-18-03A (1-2 ft)**      **Lab ID: 92201696005**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 22:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 22:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.7	1		05/19/14 22:17	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.7	1		05/19/14 22:17	108-20-3	
Ethylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.7	1		05/19/14 22:17	87-68-3	
2-Hexanone	ND	ug/kg	47.0	1		05/19/14 22:17	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.7	1		05/19/14 22:17	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.7	1		05/19/14 22:17	99-87-6	
Methylene Chloride	ND	ug/kg	18.8	1		05/19/14 22:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	47.0	1		05/19/14 22:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.7	1		05/19/14 22:17	1634-04-4	
Naphthalene	ND	ug/kg	4.7	1		05/19/14 22:17	91-20-3	
n-Propylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	103-65-1	
Styrene	ND	ug/kg	4.7	1		05/19/14 22:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	79-34-5	
Tetrachloroethene	ND	ug/kg	4.7	1		05/19/14 22:17	127-18-4	
Toluene	ND	ug/kg	4.7	1		05/19/14 22:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.7	1		05/19/14 22:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.7	1		05/19/14 22:17	79-00-5	
Trichloroethene	ND	ug/kg	4.7	1		05/19/14 22:17	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.7	1		05/19/14 22:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.7	1		05/19/14 22:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.7	1		05/19/14 22:17	108-67-8	
Vinyl acetate	ND	ug/kg	47.0	1		05/19/14 22:17	108-05-4	
Vinyl chloride	ND	ug/kg	9.4	1		05/19/14 22:17	75-01-4	
Xylene (Total)	ND	ug/kg	9.4	1		05/19/14 22:17	1330-20-7	
m&p-Xylene	ND	ug/kg	9.4	1		05/19/14 22:17	179601-23-1	
o-Xylene	ND	ug/kg	4.7	1		05/19/14 22:17	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		05/19/14 22:17	2037-26-5	
4-Bromofluorobenzene (S)	101 %		70-130	1		05/19/14 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		70-132	1		05/19/14 22:17	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	11.7 %		0.10	1		05/20/14 15:56		

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-03A (4-5 ft)**      **Lab ID: 92201696006**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.7	1	05/16/14 16:20	05/20/14 21:47	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	97 %		41-119	1	05/16/14 16:20	05/20/14 21:47	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.4	1	05/19/14 07:05	05/21/14 00:59		N2
Aliphatic (C19-C36)	ND	mg/kg	11.4	1	05/19/14 07:05	05/21/14 00:59		N2
Aromatic (C11-C22)	ND	mg/kg	11.4	1	05/19/14 07:05	05/20/14 22:17		N2
<b>Surrogates</b>								
Nonatriacontane (S)	76 %		40-140	1	05/19/14 07:05	05/21/14 00:59	7194-86-7	
o-Terphenyl (S)	63 %		40-140	1	05/19/14 07:05	05/20/14 22:17	84-15-1	
2-Fluorobiphenyl (S)	67 %		40-140	1	05/19/14 07:05	05/20/14 22:17	321-60-8	
2-Bromonaphthalene (S)	75 %		40-140	1	05/19/14 07:05	05/20/14 22:17	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	10.9	1	05/25/14 12:45	05/25/14 20:57	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	88 %		70-167	1	05/25/14 12:45	05/25/14 20:57	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.0	1	05/20/14 16:47	05/20/14 21:26		N2
Aliphatic (C09-C12)	ND	mg/kg	3.0	1	05/20/14 16:47	05/20/14 21:26		N2
Aromatic (C09-C10)	ND	mg/kg	3.0	1	05/20/14 16:47	05/20/14 21:26		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	119 %		70-130	1	05/20/14 16:47	05/20/14 21:26	460-00-4	
4-Bromofluorobenzene (PID) (S)	115 %		70-130	1	05/20/14 16:47	05/20/14 21:26	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	11.4	mg/kg	0.45	1	05/22/14 14:40	05/23/14 20:15	7440-47-3	
Lead	5.5	mg/kg	0.45	1	05/22/14 14:40	05/23/14 20:15	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	83-32-9	
Acenaphthylene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	208-96-8	
Aniline	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	62-53-3	
Anthracene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	120-12-7	
Benzo(a)anthracene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	56-55-3	
Benzo(a)pyrene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	207-08-9	
Benzoic Acid	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	65-85-0	
Benzyl alcohol	ND	ug/kg	754	1	05/19/14 07:57	05/23/14 18:36	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	101-55-3	
Butylbenzylphthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	754	1	05/19/14 07:57	05/23/14 18:36	59-50-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-03A (4-5 ft)**      **Lab ID: 92201696006**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	108-60-1	
2-Chloronaphthalene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	91-58-7	
2-Chlorophenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	7005-72-3	
Chrysene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	53-70-3	
Dibenzofuran	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	120-83-2	
Diethylphthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	105-67-9	
Dimethylphthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	131-11-3	
Di-n-butylphthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	754	1	05/19/14 07:57	05/23/14 18:36	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	606-20-2	
Di-n-octylphthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	117-81-7	
Fluoranthene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	206-44-0	
Fluorene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	87-68-3	
Hexachlorobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	77-47-4	
Hexachloroethane	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	193-39-5	
Isophorone	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	78-59-1	
1-Methylnaphthalene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	90-12-0	
2-Methylnaphthalene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36		
Naphthalene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	91-20-3	
2-Nitroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	88-74-4	
3-Nitroaniline	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	99-09-2	
4-Nitroaniline	ND	ug/kg	754	1	05/19/14 07:57	05/23/14 18:36	100-01-6	
Nitrobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	98-95-3	
2-Nitrophenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	88-75-5	
4-Nitrophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-03A (4-5 ft)**      **Lab ID: 92201696006**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	86-30-6	
Pentachlorophenol	ND	ug/kg	1890	1	05/19/14 07:57	05/23/14 18:36	87-86-5	
Phenanthrene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	85-01-8	
Phenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	108-95-2	
Pyrene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	377	1	05/19/14 07:57	05/23/14 18:36	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	42 %		23-110	1	05/19/14 07:57	05/23/14 18:36	4165-60-0	
2-Fluorobiphenyl (S)	50 %		30-110	1	05/19/14 07:57	05/23/14 18:36	321-60-8	
Terphenyl-d14 (S)	59 %		28-110	1	05/19/14 07:57	05/23/14 18:36	1718-51-0	
Phenol-d6 (S)	47 %		22-110	1	05/19/14 07:57	05/23/14 18:36	13127-88-3	
2-Fluorophenol (S)	44 %		13-110	1	05/19/14 07:57	05/23/14 18:36	367-12-4	
2,4,6-Tribromophenol (S)	59 %		27-110	1	05/19/14 07:57	05/23/14 18:36	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	100	1		05/19/14 22:37	67-64-1	
Benzene	ND	ug/kg	5.0	1		05/19/14 22:37	71-43-2	
Bromobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1		05/19/14 22:37	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1		05/19/14 22:37	75-27-4	
Bromoform	ND	ug/kg	5.0	1		05/19/14 22:37	75-25-2	
Bromomethane	ND	ug/kg	10.0	1		05/19/14 22:37	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	1		05/19/14 22:37	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	1		05/19/14 22:37	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	108-90-7	
Chloroethane	ND	ug/kg	10.0	1		05/19/14 22:37	75-00-3	
Chloroform	ND	ug/kg	5.0	1		05/19/14 22:37	67-66-3	
Chloromethane	ND	ug/kg	10.0	1		05/19/14 22:37	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1		05/19/14 22:37	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1		05/19/14 22:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	1		05/19/14 22:37	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1		05/19/14 22:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1		05/19/14 22:37	106-93-4	
Dibromomethane	ND	ug/kg	5.0	1		05/19/14 22:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	1		05/19/14 22:37	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 22:37	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-03A (4-5 ft)**      **Lab ID: 92201696006**      Collected: 05/15/14 12:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 22:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1		05/19/14 22:37	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 22:37	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 22:37	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1		05/19/14 22:37	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 22:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 22:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1		05/19/14 22:37	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1		05/19/14 22:37	108-20-3	
Ethylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	1		05/19/14 22:37	87-68-3	
2-Hexanone	ND	ug/kg	50.2	1		05/19/14 22:37	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1		05/19/14 22:37	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1		05/19/14 22:37	99-87-6	
Methylene Chloride	ND	ug/kg	20.1	1		05/19/14 22:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.2	1		05/19/14 22:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1		05/19/14 22:37	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1		05/19/14 22:37	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	103-65-1	
Styrene	ND	ug/kg	5.0	1		05/19/14 22:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1		05/19/14 22:37	127-18-4	
Toluene	ND	ug/kg	5.0	1		05/19/14 22:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1		05/19/14 22:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	1		05/19/14 22:37	79-00-5	
Trichloroethene	ND	ug/kg	5.0	1		05/19/14 22:37	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	1		05/19/14 22:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1		05/19/14 22:37	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1		05/19/14 22:37	108-67-8	
Vinyl acetate	ND	ug/kg	50.2	1		05/19/14 22:37	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1		05/19/14 22:37	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	1		05/19/14 22:37	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	1		05/19/14 22:37	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1		05/19/14 22:37	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		05/19/14 22:37	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		05/19/14 22:37	460-00-4	
1,2-Dichloroethane-d4 (S)	113 %		70-132	1		05/19/14 22:37	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **12.5 %**      0.10      1      05/20/14 15:56

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (1-3 ft)      Lab ID: 92201696007      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.5	1	05/16/14 16:20	05/20/14 22:10	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	64 %		41-119	1	05/16/14 16:20	05/20/14 22:10	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.0	1	05/19/14 07:05	05/21/14 01:31		N2
Aliphatic (C19-C36)	ND	mg/kg	11.0	1	05/19/14 07:05	05/21/14 01:31		N2
Aromatic (C11-C22)	ND	mg/kg	11.0	1	05/19/14 07:05	05/20/14 22:50		N2
<b>Surrogates</b>								
Nonatriacontane (S)	55 %		40-140	1	05/19/14 07:05	05/21/14 01:31	7194-86-7	
o-Terphenyl (S)	64 %		40-140	1	05/19/14 07:05	05/20/14 22:50	84-15-1	
2-Fluorobiphenyl (S)	69 %		40-140	1	05/19/14 07:05	05/20/14 22:50	321-60-8	
2-Bromonaphthalene (S)	73 %		40-140	1	05/19/14 07:05	05/20/14 22:50	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.6	1	05/25/14 12:45	05/25/14 21:19	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	86 %		70-167	1	05/25/14 12:45	05/25/14 21:19	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 21:49		N2
Aliphatic (C09-C12)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 21:49		N2
Aromatic (C09-C10)	ND	mg/kg	3.2	1	05/20/14 16:47	05/20/14 21:49		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	111 %		70-130	1	05/20/14 16:47	05/20/14 21:49	460-00-4	
4-Bromofluorobenzene (PID) (S)	107 %		70-130	1	05/20/14 16:47	05/20/14 21:49	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	8.5	mg/kg	0.40	1	05/22/14 14:40	05/23/14 20:18	7440-47-3	
Lead	19.7	mg/kg	0.40	1	05/22/14 14:40	05/23/14 20:18	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	83-32-9	
Acenaphthylene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	208-96-8	
Aniline	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	62-53-3	
Anthracene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	120-12-7	
Benzo(a)anthracene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	56-55-3	
Benzo(a)pyrene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	207-08-9	
Benzoic Acid	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	65-85-0	
Benzyl alcohol	ND	ug/kg	724	1	05/19/14 07:57	05/23/14 19:07	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	101-55-3	
Butylbenzylphthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	724	1	05/19/14 07:57	05/23/14 19:07	59-50-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (1-3 ft)      Lab ID: 92201696007      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	108-60-1	
2-Chloronaphthalene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	91-58-7	
2-Chlorophenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	7005-72-3	
Chrysene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	53-70-3	
Dibenzofuran	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	120-83-2	
Diethylphthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	105-67-9	
Dimethylphthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	131-11-3	
Di-n-butylphthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	724	1	05/19/14 07:57	05/23/14 19:07	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	606-20-2	
Di-n-octylphthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	117-81-7	
Fluoranthene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	206-44-0	
Fluorene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	87-68-3	
Hexachlorobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	77-47-4	
Hexachloroethane	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	193-39-5	
Isophorone	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	78-59-1	
1-Methylnaphthalene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	90-12-0	
2-Methylnaphthalene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07		
Naphthalene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	91-20-3	
2-Nitroaniline	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	88-74-4	
3-Nitroaniline	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	99-09-2	
4-Nitroaniline	ND	ug/kg	724	1	05/19/14 07:57	05/23/14 19:07	100-01-6	
Nitrobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	98-95-3	
2-Nitrophenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	88-75-5	
4-Nitrophenol	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (1-3 ft)**      **Lab ID: 92201696007**      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	86-30-6	
Pentachlorophenol	ND	ug/kg	1810	1	05/19/14 07:57	05/23/14 19:07	87-86-5	
Phenanthrene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	85-01-8	
Phenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	108-95-2	
Pyrene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	362	1	05/19/14 07:57	05/23/14 19:07	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	58 %		23-110	1	05/19/14 07:57	05/23/14 19:07	4165-60-0	
2-Fluorobiphenyl (S)	68 %		30-110	1	05/19/14 07:57	05/23/14 19:07	321-60-8	
Terphenyl-d14 (S)	77 %		28-110	1	05/19/14 07:57	05/23/14 19:07	1718-51-0	
Phenol-d6 (S)	69 %		22-110	1	05/19/14 07:57	05/23/14 19:07	13127-88-3	
2-Fluorophenol (S)	60 %		13-110	1	05/19/14 07:57	05/23/14 19:07	367-12-4	
2,4,6-Tribromophenol (S)	82 %		27-110	1	05/19/14 07:57	05/23/14 19:07	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	103	1		05/19/14 22:57	67-64-1	
Benzene	ND	ug/kg	5.2	1		05/19/14 22:57	71-43-2	
Bromobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1		05/19/14 22:57	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	1		05/19/14 22:57	75-27-4	
Bromoform	ND	ug/kg	5.2	1		05/19/14 22:57	75-25-2	
Bromomethane	ND	ug/kg	10.3	1		05/19/14 22:57	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	1		05/19/14 22:57	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	1		05/19/14 22:57	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	108-90-7	
Chloroethane	ND	ug/kg	10.3	1		05/19/14 22:57	75-00-3	
Chloroform	ND	ug/kg	5.2	1		05/19/14 22:57	67-66-3	
Chloromethane	ND	ug/kg	10.3	1		05/19/14 22:57	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1		05/19/14 22:57	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1		05/19/14 22:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	1		05/19/14 22:57	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1		05/19/14 22:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1		05/19/14 22:57	106-93-4	
Dibromomethane	ND	ug/kg	5.2	1		05/19/14 22:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	1		05/19/14 22:57	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1		05/19/14 22:57	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (1-3 ft)**      **Lab ID: 92201696007**      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1		05/19/14 22:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	1		05/19/14 22:57	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1		05/19/14 22:57	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	1		05/19/14 22:57	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1		05/19/14 22:57	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1		05/19/14 22:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1		05/19/14 22:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1		05/19/14 22:57	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1		05/19/14 22:57	108-20-3	
Ethylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	1		05/19/14 22:57	87-68-3	
2-Hexanone	ND	ug/kg	51.6	1		05/19/14 22:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1		05/19/14 22:57	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1		05/19/14 22:57	99-87-6	
Methylene Chloride	ND	ug/kg	20.6	1		05/19/14 22:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.6	1		05/19/14 22:57	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1		05/19/14 22:57	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1		05/19/14 22:57	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	103-65-1	
Styrene	ND	ug/kg	5.2	1		05/19/14 22:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	79-34-5	
Tetrachloroethene	ND	ug/kg	5.2	1		05/19/14 22:57	127-18-4	
Toluene	ND	ug/kg	5.2	1		05/19/14 22:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1		05/19/14 22:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	1		05/19/14 22:57	79-00-5	
Trichloroethene	ND	ug/kg	5.2	1		05/19/14 22:57	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	1		05/19/14 22:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1		05/19/14 22:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1		05/19/14 22:57	108-67-8	
Vinyl acetate	ND	ug/kg	51.6	1		05/19/14 22:57	108-05-4	
Vinyl chloride	ND	ug/kg	10.3	1		05/19/14 22:57	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	1		05/19/14 22:57	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	1		05/19/14 22:57	179601-23-1	
o-Xylene	ND	ug/kg	5.2	1		05/19/14 22:57	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	102 %		70-130	1		05/19/14 22:57	2037-26-5	
4-Bromofluorobenzene (S)	95 %		70-130	1		05/19/14 22:57	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		70-132	1		05/19/14 22:57	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture	<b>8.9 %</b>		0.10	1		05/20/14 15:56		
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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (5-7 ft)      Lab ID: 92201696008      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b> Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.1	1	05/20/14 16:47	05/20/14 22:12		N2
Aliphatic (C09-C12)	ND	mg/kg	3.1	1	05/20/14 16:47	05/20/14 22:12		N2
Aromatic (C09-C10)	ND	mg/kg	3.1	1	05/20/14 16:47	05/20/14 22:12		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	132 %		70-130	1	05/20/14 16:47	05/20/14 22:12	460-00-4	S0
4-Bromofluorobenzene (PID) (S)	128 %		70-130	1	05/20/14 16:47	05/20/14 22:12	460-00-4	
<b>6010 MET ICP</b> Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	<b>7.1</b>	mg/kg	0.39	1	05/22/14 14:40	05/23/14 20:21	7440-47-3	
Lead	<b>28.3</b>	mg/kg	0.39	1	05/22/14 14:40	05/23/14 20:21	7439-92-1	
<b>8260/5035A Volatile Organics</b> Analytical Method: EPA 8260								
Acetone	ND	ug/kg	96.5	1		05/19/14 23:17	67-64-1	
Benzene	ND	ug/kg	4.8	1		05/19/14 23:17	71-43-2	
Bromobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	108-86-1	
Bromochloromethane	ND	ug/kg	4.8	1		05/19/14 23:17	74-97-5	
Bromodichloromethane	ND	ug/kg	4.8	1		05/19/14 23:17	75-27-4	
Bromoform	ND	ug/kg	4.8	1		05/19/14 23:17	75-25-2	
Bromomethane	ND	ug/kg	9.6	1		05/19/14 23:17	74-83-9	
2-Butanone (MEK)	ND	ug/kg	96.5	1		05/19/14 23:17	78-93-3	
n-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.8	1		05/19/14 23:17	56-23-5	
Chlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	108-90-7	
Chloroethane	ND	ug/kg	9.6	1		05/19/14 23:17	75-00-3	
Chloroform	ND	ug/kg	4.8	1		05/19/14 23:17	67-66-3	
Chloromethane	ND	ug/kg	9.6	1		05/19/14 23:17	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.8	1		05/19/14 23:17	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.8	1		05/19/14 23:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	1		05/19/14 23:17	96-12-8	
Dibromochloromethane	ND	ug/kg	4.8	1		05/19/14 23:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	1		05/19/14 23:17	106-93-4	
Dibromomethane	ND	ug/kg	4.8	1		05/19/14 23:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.6	1		05/19/14 23:17	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.8	1		05/19/14 23:17	75-35-4	
cis-1,2-Dichloroethene	<b>6.5</b>	ug/kg	4.8	1		05/19/14 23:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.8	1		05/19/14 23:17	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 23:17	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 23:17	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 23:17	594-20-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-04A (5-7 ft)**      **Lab ID: 92201696008**      Collected: 05/15/14 13:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 23:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 23:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 23:17	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.8	1		05/19/14 23:17	108-20-3	
Ethylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	1		05/19/14 23:17	87-68-3	
2-Hexanone	ND	ug/kg	48.2	1		05/19/14 23:17	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	1		05/19/14 23:17	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.8	1		05/19/14 23:17	99-87-6	
Methylene Chloride	ND	ug/kg	19.3	1		05/19/14 23:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.2	1		05/19/14 23:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.8	1		05/19/14 23:17	1634-04-4	
Naphthalene	ND	ug/kg	4.8	1		05/19/14 23:17	91-20-3	
n-Propylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	103-65-1	
Styrene	ND	ug/kg	4.8	1		05/19/14 23:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	79-34-5	
Tetrachloroethene	ND	ug/kg	4.8	1		05/19/14 23:17	127-18-4	
Toluene	ND	ug/kg	4.8	1		05/19/14 23:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	1		05/19/14 23:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.8	1		05/19/14 23:17	79-00-5	
Trichloroethene	ND	ug/kg	4.8	1		05/19/14 23:17	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.8	1		05/19/14 23:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.8	1		05/19/14 23:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	1		05/19/14 23:17	108-67-8	
Vinyl acetate	ND	ug/kg	48.2	1		05/19/14 23:17	108-05-4	
Vinyl chloride	ND	ug/kg	9.6	1		05/19/14 23:17	75-01-4	
Xylene (Total)	ND	ug/kg	9.6	1		05/19/14 23:17	1330-20-7	
m&p-Xylene	ND	ug/kg	9.6	1		05/19/14 23:17	179601-23-1	
o-Xylene	ND	ug/kg	4.8	1		05/19/14 23:17	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	103 %		70-130	1		05/19/14 23:17	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		05/19/14 23:17	460-00-4	
1,2-Dichloroethane-d4 (S)	107 %		70-132	1		05/19/14 23:17	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>20.4 %</b>		0.10	1		05/20/14 15:57		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (1-2 ft)      Lab ID: 92201696009      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	6.3	mg/kg	5.6	1	05/16/14 16:20	05/20/14 22:10	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	58	%	41-119	1	05/16/14 16:20	05/20/14 22:10	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 02:03		N2
Aliphatic (C19-C36)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 02:03		N2
Aromatic (C11-C22)	ND	mg/kg	11.1	1	05/19/14 07:05	05/20/14 23:22		N2
<b>Surrogates</b>								
Nonatriacontane (S)	69	%	40-140	1	05/19/14 07:05	05/21/14 02:03	7194-86-7	
o-Terphenyl (S)	65	%	40-140	1	05/19/14 07:05	05/20/14 23:22	84-15-1	
2-Fluorobiphenyl (S)	72	%	40-140	1	05/19/14 07:05	05/20/14 23:22	321-60-8	
2-Bromonaphthalene (S)	76	%	40-140	1	05/19/14 07:05	05/20/14 23:22	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	6.1	1	05/26/14 14:38	05/27/14 01:26	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%	70-167	1	05/26/14 14:38	05/27/14 01:26	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.7	1	05/20/14 16:47	05/20/14 22:35		N2
Aliphatic (C09-C12)	ND	mg/kg	2.7	1	05/20/14 16:47	05/20/14 22:35		N2
Aromatic (C09-C10)	ND	mg/kg	2.7	1	05/20/14 16:47	05/20/14 22:35		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	115	%	70-130	1	05/20/14 16:47	05/20/14 22:35	460-00-4	
4-Bromofluorobenzene (PID) (S)	111	%	70-130	1	05/20/14 16:47	05/20/14 22:35	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	9.6	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:24	7440-47-3	
Lead	7.5	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:24	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	83-32-9	
Acenaphthylene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	208-96-8	
Aniline	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	62-53-3	
Anthracene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	120-12-7	
Benzo(a)anthracene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	56-55-3	
Benzo(a)pyrene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	207-08-9	
Benzoic Acid	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	65-85-0	
Benzyl alcohol	ND	ug/kg	734	1	05/19/14 07:57	05/23/14 19:38	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	101-55-3	
Butylbenzylphthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	734	1	05/19/14 07:57	05/23/14 19:38	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (1-2 ft)**      **Lab ID: 92201696009**      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	108-60-1	
2-Chloronaphthalene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	91-58-7	
2-Chlorophenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	7005-72-3	
Chrysene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	53-70-3	
Dibenzofuran	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	120-83-2	
Diethylphthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	105-67-9	
Dimethylphthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	131-11-3	
Di-n-butylphthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	734	1	05/19/14 07:57	05/23/14 19:38	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	606-20-2	
Di-n-octylphthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	117-81-7	
Fluoranthene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	206-44-0	
Fluorene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	87-68-3	
Hexachlorobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	77-47-4	
Hexachloroethane	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	193-39-5	
Isophorone	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	78-59-1	
1-Methylnaphthalene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	90-12-0	
2-Methylnaphthalene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38		
Naphthalene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	91-20-3	
2-Nitroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	88-74-4	
3-Nitroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	99-09-2	
4-Nitroaniline	ND	ug/kg	734	1	05/19/14 07:57	05/23/14 19:38	100-01-6	
Nitrobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	98-95-3	
2-Nitrophenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	88-75-5	
4-Nitrophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (1-2 ft)**      **Lab ID: 92201696009**      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	86-30-6	
Pentachlorophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 19:38	87-86-5	
Phenanthrene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	85-01-8	
Phenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	108-95-2	
Pyrene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	367	1	05/19/14 07:57	05/23/14 19:38	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	54 %		23-110	1	05/19/14 07:57	05/23/14 19:38	4165-60-0	
2-Fluorobiphenyl (S)	64 %		30-110	1	05/19/14 07:57	05/23/14 19:38	321-60-8	
Terphenyl-d14 (S)	72 %		28-110	1	05/19/14 07:57	05/23/14 19:38	1718-51-0	
Phenol-d6 (S)	62 %		22-110	1	05/19/14 07:57	05/23/14 19:38	13127-88-3	
2-Fluorophenol (S)	56 %		13-110	1	05/19/14 07:57	05/23/14 19:38	367-12-4	
2,4,6-Tribromophenol (S)	81 %		27-110	1	05/19/14 07:57	05/23/14 19:38	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	92.4	1		05/19/14 23:36	67-64-1	
Benzene	ND	ug/kg	4.6	1		05/19/14 23:36	71-43-2	
Bromobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	108-86-1	
Bromochloromethane	ND	ug/kg	4.6	1		05/19/14 23:36	74-97-5	
Bromodichloromethane	ND	ug/kg	4.6	1		05/19/14 23:36	75-27-4	
Bromoform	ND	ug/kg	4.6	1		05/19/14 23:36	75-25-2	
Bromomethane	ND	ug/kg	9.2	1		05/19/14 23:36	74-83-9	
2-Butanone (MEK)	ND	ug/kg	92.4	1		05/19/14 23:36	78-93-3	
n-Butylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.6	1		05/19/14 23:36	56-23-5	
Chlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	108-90-7	
Chloroethane	ND	ug/kg	9.2	1		05/19/14 23:36	75-00-3	
Chloroform	ND	ug/kg	4.6	1		05/19/14 23:36	67-66-3	
Chloromethane	ND	ug/kg	9.2	1		05/19/14 23:36	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.6	1		05/19/14 23:36	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.6	1		05/19/14 23:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.6	1		05/19/14 23:36	96-12-8	
Dibromochloromethane	ND	ug/kg	4.6	1		05/19/14 23:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.6	1		05/19/14 23:36	106-93-4	
Dibromomethane	ND	ug/kg	4.6	1		05/19/14 23:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.2	1		05/19/14 23:36	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.6	1		05/19/14 23:36	75-35-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (1-2 ft)**      **Lab ID: 92201696009**      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.6	1		05/19/14 23:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.6	1		05/19/14 23:36	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.6	1		05/19/14 23:36	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.6	1		05/19/14 23:36	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.6	1		05/19/14 23:36	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.6	1		05/19/14 23:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.6	1		05/19/14 23:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.6	1		05/19/14 23:36	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.6	1		05/19/14 23:36	108-20-3	
Ethylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.6	1		05/19/14 23:36	87-68-3	
2-Hexanone	ND	ug/kg	46.2	1		05/19/14 23:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.6	1		05/19/14 23:36	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.6	1		05/19/14 23:36	99-87-6	
Methylene Chloride	ND	ug/kg	18.5	1		05/19/14 23:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.2	1		05/19/14 23:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.6	1		05/19/14 23:36	1634-04-4	
Naphthalene	ND	ug/kg	4.6	1		05/19/14 23:36	91-20-3	
n-Propylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	103-65-1	
Styrene	ND	ug/kg	4.6	1		05/19/14 23:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	79-34-5	
Tetrachloroethene	ND	ug/kg	4.6	1		05/19/14 23:36	127-18-4	
Toluene	ND	ug/kg	4.6	1		05/19/14 23:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.6	1		05/19/14 23:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.6	1		05/19/14 23:36	79-00-5	
Trichloroethene	ND	ug/kg	4.6	1		05/19/14 23:36	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.6	1		05/19/14 23:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.6	1		05/19/14 23:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.6	1		05/19/14 23:36	108-67-8	
Vinyl acetate	ND	ug/kg	46.2	1		05/19/14 23:36	108-05-4	
Vinyl chloride	ND	ug/kg	9.2	1		05/19/14 23:36	75-01-4	
Xylene (Total)	ND	ug/kg	9.2	1		05/19/14 23:36	1330-20-7	
m&p-Xylene	ND	ug/kg	9.2	1		05/19/14 23:36	179601-23-1	
o-Xylene	ND	ug/kg	4.6	1		05/19/14 23:36	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		05/19/14 23:36	2037-26-5	
4-Bromofluorobenzene (S)	104 %		70-130	1		05/19/14 23:36	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		70-132	1		05/19/14 23:36	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **10.1 %**      0.10      1      05/20/14 15:57

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (4-5 ft)**      **Lab ID: 92201696010**      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.4	1	05/20/14 16:47	05/20/14 22:58		N2
Aliphatic (C09-C12)	ND	mg/kg	2.4	1	05/20/14 16:47	05/20/14 22:58		N2
Aromatic (C09-C10)	ND	mg/kg	2.4	1	05/20/14 16:47	05/20/14 22:58		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	112 %		70-130	1	05/20/14 16:47	05/20/14 22:58	460-00-4	
4-Bromofluorobenzene (PID) (S)	107 %		70-130	1	05/20/14 16:47	05/20/14 22:58	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	<b>13.7</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:27	7440-47-3	
Lead	<b>8.5</b>	mg/kg	0.38	1	05/22/14 14:40	05/23/14 20:27	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	78.6	1		05/19/14 23:56	67-64-1	
Benzene	ND	ug/kg	3.9	1		05/19/14 23:56	71-43-2	
Bromobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	108-86-1	
Bromochloromethane	ND	ug/kg	3.9	1		05/19/14 23:56	74-97-5	
Bromodichloromethane	ND	ug/kg	3.9	1		05/19/14 23:56	75-27-4	
Bromoform	ND	ug/kg	3.9	1		05/19/14 23:56	75-25-2	
Bromomethane	ND	ug/kg	7.9	1		05/19/14 23:56	74-83-9	
2-Butanone (MEK)	ND	ug/kg	78.6	1		05/19/14 23:56	78-93-3	
n-Butylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	98-06-6	
Carbon tetrachloride	ND	ug/kg	3.9	1		05/19/14 23:56	56-23-5	
Chlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	108-90-7	
Chloroethane	ND	ug/kg	7.9	1		05/19/14 23:56	75-00-3	
Chloroform	ND	ug/kg	3.9	1		05/19/14 23:56	67-66-3	
Chloromethane	ND	ug/kg	7.9	1		05/19/14 23:56	74-87-3	
2-Chlorotoluene	ND	ug/kg	3.9	1		05/19/14 23:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	3.9	1		05/19/14 23:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.9	1		05/19/14 23:56	96-12-8	
Dibromochloromethane	ND	ug/kg	3.9	1		05/19/14 23:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	3.9	1		05/19/14 23:56	106-93-4	
Dibromomethane	ND	ug/kg	3.9	1		05/19/14 23:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	7.9	1		05/19/14 23:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	3.9	1		05/19/14 23:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	3.9	1		05/19/14 23:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	3.9	1		05/19/14 23:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	3.9	1		05/19/14 23:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	3.9	1		05/19/14 23:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	3.9	1		05/19/14 23:56	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-05 (4-5 ft)**      **Lab ID: 92201696010**      Collected: 05/15/14 13:25      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	3.9	1		05/19/14 23:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	3.9	1		05/19/14 23:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	3.9	1		05/19/14 23:56	10061-02-6	
Diisopropyl ether	ND	ug/kg	3.9	1		05/19/14 23:56	108-20-3	
Ethylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	3.9	1		05/19/14 23:56	87-68-3	
2-Hexanone	ND	ug/kg	39.3	1		05/19/14 23:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	3.9	1		05/19/14 23:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	3.9	1		05/19/14 23:56	99-87-6	
Methylene Chloride	ND	ug/kg	15.7	1		05/19/14 23:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	39.3	1		05/19/14 23:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	3.9	1		05/19/14 23:56	1634-04-4	
Naphthalene	ND	ug/kg	3.9	1		05/19/14 23:56	91-20-3	
n-Propylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	103-65-1	
Styrene	ND	ug/kg	3.9	1		05/19/14 23:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	79-34-5	
Tetrachloroethene	ND	ug/kg	3.9	1		05/19/14 23:56	127-18-4	
Toluene	ND	ug/kg	3.9	1		05/19/14 23:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	3.9	1		05/19/14 23:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	3.9	1		05/19/14 23:56	79-00-5	
Trichloroethene	ND	ug/kg	3.9	1		05/19/14 23:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	3.9	1		05/19/14 23:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	3.9	1		05/19/14 23:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	3.9	1		05/19/14 23:56	108-67-8	
Vinyl acetate	ND	ug/kg	39.3	1		05/19/14 23:56	108-05-4	
Vinyl chloride	ND	ug/kg	7.9	1		05/19/14 23:56	75-01-4	
Xylene (Total)	ND	ug/kg	7.9	1		05/19/14 23:56	1330-20-7	
m&p-Xylene	ND	ug/kg	7.9	1		05/19/14 23:56	179601-23-1	
o-Xylene	ND	ug/kg	3.9	1		05/19/14 23:56	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		05/19/14 23:56	2037-26-5	
4-Bromofluorobenzene (S)	90 %		70-130	1		05/19/14 23:56	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %		70-132	1		05/19/14 23:56	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>9.1 %</b>		0.10	1		05/20/14 15:57		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (1-2 ft)**      **Lab ID: 92201696011**      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	5.8	mg/kg	5.5	1	05/16/14 16:20	05/20/14 22:34	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	72	%	41-119	1	05/16/14 16:20	05/20/14 22:34	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 02:36		N2
Aliphatic (C19-C36)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 02:36		N2
Aromatic (C11-C22)	ND	mg/kg	11.1	1	05/19/14 07:05	05/20/14 23:54		N2
<b>Surrogates</b>								
Nonatriacontane (S)	59	%	40-140	1	05/19/14 07:05	05/21/14 02:36	7194-86-7	
o-Terphenyl (S)	58	%	40-140	1	05/19/14 07:05	05/20/14 23:54	84-15-1	
2-Fluorobiphenyl (S)	62	%	40-140	1	05/19/14 07:05	05/20/14 23:54	321-60-8	
2-Bromonaphthalene (S)	65	%	40-140	1	05/19/14 07:05	05/20/14 23:54	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.3	1	05/26/14 14:38	05/27/14 01:49	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	95	%	70-167	1	05/26/14 14:38	05/27/14 01:49	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:21		N2
Aliphatic (C09-C12)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:21		N2
Aromatic (C09-C10)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:21		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	118	%	70-130	1	05/20/14 16:47	05/20/14 23:21	460-00-4	
4-Bromofluorobenzene (PID) (S)	114	%	70-130	1	05/20/14 16:47	05/20/14 23:21	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	6.2	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:40	7440-47-3	
Lead	54.2	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:40	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	83-32-9	
Acenaphthylene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	208-96-8	
Aniline	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	62-53-3	
Anthracene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	120-12-7	
Benzo(a)anthracene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	56-55-3	
Benzo(a)pyrene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	207-08-9	
Benzoic Acid	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	65-85-0	
Benzyl alcohol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:09	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	101-55-3	
Butylbenzylphthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:09	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (1-2 ft)      Lab ID: 92201696011      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	108-60-1	
2-Chloronaphthalene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	91-58-7	
2-Chlorophenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	7005-72-3	
Chrysene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	53-70-3	
Dibenzofuran	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	120-83-2	
Diethylphthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	105-67-9	
Dimethylphthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	131-11-3	
Di-n-butylphthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:09	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	606-20-2	
Di-n-octylphthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	117-81-7	
Fluoranthene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	206-44-0	
Fluorene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	87-68-3	
Hexachlorobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	77-47-4	
Hexachloroethane	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	193-39-5	
Isophorone	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	78-59-1	
1-Methylnaphthalene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	90-12-0	
2-Methylnaphthalene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09		
Naphthalene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	91-20-3	
2-Nitroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	88-74-4	
3-Nitroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	99-09-2	
4-Nitroaniline	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:09	100-01-6	
Nitrobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	98-95-3	
2-Nitrophenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	88-75-5	
4-Nitrophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (1-2 ft)**      **Lab ID: 92201696011**      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	86-30-6	
Pentachlorophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:09	87-86-5	
Phenanthrene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	85-01-8	
Phenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	108-95-2	
Pyrene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	366	1	05/19/14 07:57	05/23/14 20:09	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	61 %		23-110	1	05/19/14 07:57	05/23/14 20:09	4165-60-0	
2-Fluorobiphenyl (S)	73 %		30-110	1	05/19/14 07:57	05/23/14 20:09	321-60-8	
Terphenyl-d14 (S)	74 %		28-110	1	05/19/14 07:57	05/23/14 20:09	1718-51-0	
Phenol-d6 (S)	68 %		22-110	1	05/19/14 07:57	05/23/14 20:09	13127-88-3	
2-Fluorophenol (S)	61 %		13-110	1	05/19/14 07:57	05/23/14 20:09	367-12-4	
2,4,6-Tribromophenol (S)	82 %		27-110	1	05/19/14 07:57	05/23/14 20:09	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	107	1		05/20/14 00:16	67-64-1	
Benzene	ND	ug/kg	5.3	1		05/20/14 00:16	71-43-2	
Bromobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1		05/20/14 00:16	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	1		05/20/14 00:16	75-27-4	
Bromoform	ND	ug/kg	5.3	1		05/20/14 00:16	75-25-2	
Bromomethane	ND	ug/kg	10.7	1		05/20/14 00:16	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	1		05/20/14 00:16	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	1		05/20/14 00:16	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	108-90-7	
Chloroethane	ND	ug/kg	10.7	1		05/20/14 00:16	75-00-3	
Chloroform	ND	ug/kg	5.3	1		05/20/14 00:16	67-66-3	
Chloromethane	ND	ug/kg	10.7	1		05/20/14 00:16	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1		05/20/14 00:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1		05/20/14 00:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	1		05/20/14 00:16	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1		05/20/14 00:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1		05/20/14 00:16	106-93-4	
Dibromomethane	ND	ug/kg	5.3	1		05/20/14 00:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	1		05/20/14 00:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1		05/20/14 00:16	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (1-2 ft)**      **Lab ID: 92201696011**      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1		05/20/14 00:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	1		05/20/14 00:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1		05/20/14 00:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	1		05/20/14 00:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1		05/20/14 00:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1		05/20/14 00:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1		05/20/14 00:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1		05/20/14 00:16	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1		05/20/14 00:16	108-20-3	
Ethylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	1		05/20/14 00:16	87-68-3	
2-Hexanone	ND	ug/kg	53.4	1		05/20/14 00:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	1		05/20/14 00:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1		05/20/14 00:16	99-87-6	
Methylene Chloride	ND	ug/kg	21.4	1		05/20/14 00:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.4	1		05/20/14 00:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1		05/20/14 00:16	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1		05/20/14 00:16	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	103-65-1	
Styrene	ND	ug/kg	5.3	1		05/20/14 00:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1		05/20/14 00:16	127-18-4	
Toluene	ND	ug/kg	5.3	1		05/20/14 00:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1		05/20/14 00:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	1		05/20/14 00:16	79-00-5	
Trichloroethene	ND	ug/kg	5.3	1		05/20/14 00:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	1		05/20/14 00:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1		05/20/14 00:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1		05/20/14 00:16	108-67-8	
Vinyl acetate	ND	ug/kg	53.4	1		05/20/14 00:16	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1		05/20/14 00:16	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	1		05/20/14 00:16	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	1		05/20/14 00:16	179601-23-1	
o-Xylene	ND	ug/kg	5.3	1		05/20/14 00:16	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		05/20/14 00:16	2037-26-5	
4-Bromofluorobenzene (S)	94 %		70-130	1		05/20/14 00:16	460-00-4	
1,2-Dichloroethane-d4 (S)	110 %		70-132	1		05/20/14 00:16	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture	<b>9.8 %</b>		0.10	1		05/20/14 15:57		
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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (4-5 ft)**      **Lab ID: 92201696012**      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:44		N2
Aliphatic (C09-C12)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:44		N2
Aromatic (C09-C10)	ND	mg/kg	2.5	1	05/20/14 16:47	05/20/14 23:44		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	120	%	70-130	1	05/20/14 16:47	05/20/14 23:44	460-00-4	
4-Bromofluorobenzene (PID) (S)	115	%	70-130	1	05/20/14 16:47	05/20/14 23:44	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	4.6	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:43	7440-47-3	
Lead	17.9	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:43	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	85.9	1		05/20/14 00:36	67-64-1	
Benzene	ND	ug/kg	4.3	1		05/20/14 00:36	71-43-2	
Bromobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	108-86-1	
Bromochloromethane	ND	ug/kg	4.3	1		05/20/14 00:36	74-97-5	
Bromodichloromethane	ND	ug/kg	4.3	1		05/20/14 00:36	75-27-4	
Bromoform	ND	ug/kg	4.3	1		05/20/14 00:36	75-25-2	
Bromomethane	ND	ug/kg	8.6	1		05/20/14 00:36	74-83-9	
2-Butanone (MEK)	ND	ug/kg	85.9	1		05/20/14 00:36	78-93-3	
n-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.3	1		05/20/14 00:36	56-23-5	
Chlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	108-90-7	
Chloroethane	ND	ug/kg	8.6	1		05/20/14 00:36	75-00-3	
Chloroform	ND	ug/kg	4.3	1		05/20/14 00:36	67-66-3	
Chloromethane	ND	ug/kg	8.6	1		05/20/14 00:36	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.3	1		05/20/14 00:36	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.3	1		05/20/14 00:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.3	1		05/20/14 00:36	96-12-8	
Dibromochloromethane	ND	ug/kg	4.3	1		05/20/14 00:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.3	1		05/20/14 00:36	106-93-4	
Dibromomethane	ND	ug/kg	4.3	1		05/20/14 00:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.6	1		05/20/14 00:36	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 00:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 00:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 00:36	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 00:36	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 00:36	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 00:36	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-06 (4-5 ft)**      **Lab ID: 92201696012**      Collected: 05/15/14 13:50      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 00:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 00:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 00:36	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.3	1		05/20/14 00:36	108-20-3	
Ethylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.3	1		05/20/14 00:36	87-68-3	
2-Hexanone	ND	ug/kg	42.9	1		05/20/14 00:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.3	1		05/20/14 00:36	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.3	1		05/20/14 00:36	99-87-6	
Methylene Chloride	ND	ug/kg	17.2	1		05/20/14 00:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	42.9	1		05/20/14 00:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1		05/20/14 00:36	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1		05/20/14 00:36	91-20-3	
n-Propylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	103-65-1	
Styrene	ND	ug/kg	4.3	1		05/20/14 00:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	79-34-5	
Tetrachloroethene	ND	ug/kg	4.3	1		05/20/14 00:36	127-18-4	
Toluene	ND	ug/kg	4.3	1		05/20/14 00:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.3	1		05/20/14 00:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.3	1		05/20/14 00:36	79-00-5	
Trichloroethene	ND	ug/kg	4.3	1		05/20/14 00:36	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.3	1		05/20/14 00:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.3	1		05/20/14 00:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.3	1		05/20/14 00:36	108-67-8	
Vinyl acetate	ND	ug/kg	42.9	1		05/20/14 00:36	108-05-4	
Vinyl chloride	ND	ug/kg	8.6	1		05/20/14 00:36	75-01-4	
Xylene (Total)	ND	ug/kg	8.6	1		05/20/14 00:36	1330-20-7	
m&p-Xylene	ND	ug/kg	8.6	1		05/20/14 00:36	179601-23-1	
o-Xylene	ND	ug/kg	4.3	1		05/20/14 00:36	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	102 %		70-130	1		05/20/14 00:36	2037-26-5	
4-Bromofluorobenzene (S)	95 %		70-130	1		05/20/14 00:36	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %		70-132	1		05/20/14 00:36	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>10.4 %</b>		0.10	1		05/20/14 15:57		

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (1-2 ft)      Lab ID: 92201696013      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	6.7	mg/kg	5.5	1	05/16/14 16:20	05/20/14 22:34	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	71	%	41-119	1	05/16/14 16:20	05/20/14 22:34	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 03:40		N2
Aliphatic (C19-C36)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 03:40		N2
Aromatic (C11-C22)	ND	mg/kg	11.1	1	05/19/14 07:05	05/21/14 00:26		N2
<b>Surrogates</b>								
Nonatriacontane (S)	61	%	40-140	1	05/19/14 07:05	05/21/14 03:40	7194-86-7	
o-Terphenyl (S)	64	%	40-140	1	05/19/14 07:05	05/21/14 00:26	84-15-1	
2-Fluorobiphenyl (S)	67	%	40-140	1	05/19/14 07:05	05/21/14 00:26	321-60-8	
2-Bromonaphthalene (S)	69	%	40-140	1	05/19/14 07:05	05/21/14 00:26	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.6	1	05/26/14 14:38	05/27/14 02:12	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97	%	70-167	1	05/26/14 14:38	05/27/14 02:12	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 21:11		N2
Aliphatic (C09-C12)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 21:11		N2
Aromatic (C09-C10)	ND	mg/kg	2.5	1	05/21/14 16:56	05/21/14 21:11		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	114	%	70-130	1	05/21/14 16:56	05/21/14 21:11	460-00-4	
4-Bromofluorobenzene (PID) (S)	113	%	70-130	1	05/21/14 16:56	05/21/14 21:11	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	4.4	mg/kg	0.30	1	05/22/14 14:40	05/23/14 20:46	7440-47-3	
Lead	27.6	mg/kg	0.30	1	05/22/14 14:40	05/23/14 20:46	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	83-32-9	
Acenaphthylene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	208-96-8	
Aniline	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	62-53-3	
Anthracene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	120-12-7	
Benzo(a)anthracene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	56-55-3	
Benzo(a)pyrene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	207-08-9	
Benzoic Acid	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	65-85-0	
Benzyl alcohol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:39	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	101-55-3	
Butylbenzylphthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:39	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (1-2 ft)**      **Lab ID: 92201696013**      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	108-60-1	
2-Chloronaphthalene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	91-58-7	
2-Chlorophenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	7005-72-3	
Chrysene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	53-70-3	
Dibenzofuran	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	120-83-2	
Diethylphthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	105-67-9	
Dimethylphthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	131-11-3	
Di-n-butylphthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:39	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	606-20-2	
Di-n-octylphthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	117-81-7	
Fluoranthene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	206-44-0	
Fluorene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	87-68-3	
Hexachlorobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	77-47-4	
Hexachloroethane	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	193-39-5	
Isophorone	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	78-59-1	
1-Methylnaphthalene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	90-12-0	
2-Methylnaphthalene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39		
Naphthalene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	91-20-3	
2-Nitroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	88-74-4	
3-Nitroaniline	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	99-09-2	
4-Nitroaniline	ND	ug/kg	731	1	05/19/14 07:57	05/23/14 20:39	100-01-6	
Nitrobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	98-95-3	
2-Nitrophenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	88-75-5	
4-Nitrophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (1-2 ft)      Lab ID: 92201696013      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	86-30-6	
Pentachlorophenol	ND	ug/kg	1830	1	05/19/14 07:57	05/23/14 20:39	87-86-5	
Phenanthrene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	85-01-8	
Phenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	108-95-2	
Pyrene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	365	1	05/19/14 07:57	05/23/14 20:39	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	60 %		23-110	1	05/19/14 07:57	05/23/14 20:39	4165-60-0	
2-Fluorobiphenyl (S)	69 %		30-110	1	05/19/14 07:57	05/23/14 20:39	321-60-8	
Terphenyl-d14 (S)	67 %		28-110	1	05/19/14 07:57	05/23/14 20:39	1718-51-0	
Phenol-d6 (S)	69 %		22-110	1	05/19/14 07:57	05/23/14 20:39	13127-88-3	
2-Fluorophenol (S)	60 %		13-110	1	05/19/14 07:57	05/23/14 20:39	367-12-4	
2,4,6-Tribromophenol (S)	79 %		27-110	1	05/19/14 07:57	05/23/14 20:39	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	92.3	1		05/20/14 00:56	67-64-1	
Benzene	ND	ug/kg	4.6	1		05/20/14 00:56	71-43-2	
Bromobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	108-86-1	
Bromochloromethane	ND	ug/kg	4.6	1		05/20/14 00:56	74-97-5	
Bromodichloromethane	ND	ug/kg	4.6	1		05/20/14 00:56	75-27-4	
Bromoform	ND	ug/kg	4.6	1		05/20/14 00:56	75-25-2	
Bromomethane	ND	ug/kg	9.2	1		05/20/14 00:56	74-83-9	
2-Butanone (MEK)	ND	ug/kg	92.3	1		05/20/14 00:56	78-93-3	
n-Butylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.6	1		05/20/14 00:56	56-23-5	
Chlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	108-90-7	
Chloroethane	ND	ug/kg	9.2	1		05/20/14 00:56	75-00-3	
Chloroform	ND	ug/kg	4.6	1		05/20/14 00:56	67-66-3	
Chloromethane	ND	ug/kg	9.2	1		05/20/14 00:56	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.6	1		05/20/14 00:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.6	1		05/20/14 00:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.6	1		05/20/14 00:56	96-12-8	
Dibromochloromethane	ND	ug/kg	4.6	1		05/20/14 00:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.6	1		05/20/14 00:56	106-93-4	
Dibromomethane	ND	ug/kg	4.6	1		05/20/14 00:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.2	1		05/20/14 00:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.6	1		05/20/14 00:56	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (1-2 ft)**      **Lab ID: 92201696013**      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.6	1		05/20/14 00:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.6	1		05/20/14 00:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.6	1		05/20/14 00:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.6	1		05/20/14 00:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.6	1		05/20/14 00:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.6	1		05/20/14 00:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.6	1		05/20/14 00:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.6	1		05/20/14 00:56	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.6	1		05/20/14 00:56	108-20-3	
Ethylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.6	1		05/20/14 00:56	87-68-3	
2-Hexanone	ND	ug/kg	46.1	1		05/20/14 00:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.6	1		05/20/14 00:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.6	1		05/20/14 00:56	99-87-6	
Methylene Chloride	ND	ug/kg	18.5	1		05/20/14 00:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.1	1		05/20/14 00:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.6	1		05/20/14 00:56	1634-04-4	
Naphthalene	ND	ug/kg	4.6	1		05/20/14 00:56	91-20-3	
n-Propylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	103-65-1	
Styrene	ND	ug/kg	4.6	1		05/20/14 00:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	79-34-5	
Tetrachloroethene	ND	ug/kg	4.6	1		05/20/14 00:56	127-18-4	
Toluene	ND	ug/kg	4.6	1		05/20/14 00:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.6	1		05/20/14 00:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.6	1		05/20/14 00:56	79-00-5	
Trichloroethene	ND	ug/kg	4.6	1		05/20/14 00:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.6	1		05/20/14 00:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.6	1		05/20/14 00:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.6	1		05/20/14 00:56	108-67-8	
Vinyl acetate	ND	ug/kg	46.1	1		05/20/14 00:56	108-05-4	
Vinyl chloride	ND	ug/kg	9.2	1		05/20/14 00:56	75-01-4	
Xylene (Total)	ND	ug/kg	9.2	1		05/20/14 00:56	1330-20-7	
m&p-Xylene	ND	ug/kg	9.2	1		05/20/14 00:56	179601-23-1	
o-Xylene	ND	ug/kg	4.6	1		05/20/14 00:56	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		05/20/14 00:56	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		05/20/14 00:56	460-00-4	
1,2-Dichloroethane-d4 (S)	107 %		70-132	1		05/20/14 00:56	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture	<b>9.7 %</b>	0.10	1	05/20/14 15:57
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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (4-5 ft)**      **Lab ID: 92201696014**      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>		Analytical Method: MADEP VPH    Preparation Method: MADEP VPH						
Aliphatic (C05-C08)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 21:34		N2
Aliphatic (C09-C12)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 21:34		N2
Aromatic (C09-C10)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 21:34		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	113	%	70-130	1	05/21/14 16:56	05/21/14 21:34	460-00-4	
4-Bromofluorobenzene (PID) (S)	111	%	70-130	1	05/21/14 16:56	05/21/14 21:34	460-00-4	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010    Preparation Method: EPA 3050						
Chromium	<b>3.1</b>	mg/kg	0.40	1	05/22/14 14:40	05/23/14 20:49	7440-47-3	
Lead	<b>20.8</b>	mg/kg	0.40	1	05/22/14 14:40	05/23/14 20:49	7439-92-1	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	84.0	1		05/20/14 01:15	67-64-1	
Benzene	ND	ug/kg	4.2	1		05/20/14 01:15	71-43-2	
Bromobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	108-86-1	
Bromochloromethane	ND	ug/kg	4.2	1		05/20/14 01:15	74-97-5	
Bromodichloromethane	ND	ug/kg	4.2	1		05/20/14 01:15	75-27-4	
Bromoform	ND	ug/kg	4.2	1		05/20/14 01:15	75-25-2	
Bromomethane	ND	ug/kg	8.4	1		05/20/14 01:15	74-83-9	
2-Butanone (MEK)	ND	ug/kg	84.0	1		05/20/14 01:15	78-93-3	
n-Butylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.2	1		05/20/14 01:15	56-23-5	
Chlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	108-90-7	
Chloroethane	ND	ug/kg	8.4	1		05/20/14 01:15	75-00-3	
Chloroform	ND	ug/kg	4.2	1		05/20/14 01:15	67-66-3	
Chloromethane	ND	ug/kg	8.4	1		05/20/14 01:15	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.2	1		05/20/14 01:15	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.2	1		05/20/14 01:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2	1		05/20/14 01:15	96-12-8	
Dibromochloromethane	ND	ug/kg	4.2	1		05/20/14 01:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.2	1		05/20/14 01:15	106-93-4	
Dibromomethane	ND	ug/kg	4.2	1		05/20/14 01:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.4	1		05/20/14 01:15	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.2	1		05/20/14 01:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.2	1		05/20/14 01:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.2	1		05/20/14 01:15	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.2	1		05/20/14 01:15	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.2	1		05/20/14 01:15	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.2	1		05/20/14 01:15	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-07 (4-5 ft)      Lab ID: 92201696014      Collected: 05/15/14 14:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.2	1		05/20/14 01:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.2	1		05/20/14 01:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.2	1		05/20/14 01:15	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.2	1		05/20/14 01:15	108-20-3	
Ethylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.2	1		05/20/14 01:15	87-68-3	
2-Hexanone	ND	ug/kg	42.0	1		05/20/14 01:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.2	1		05/20/14 01:15	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.2	1		05/20/14 01:15	99-87-6	
Methylene Chloride	ND	ug/kg	16.8	1		05/20/14 01:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	42.0	1		05/20/14 01:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.2	1		05/20/14 01:15	1634-04-4	
Naphthalene	ND	ug/kg	4.2	1		05/20/14 01:15	91-20-3	
n-Propylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	103-65-1	
Styrene	ND	ug/kg	4.2	1		05/20/14 01:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	79-34-5	
Tetrachloroethene	ND	ug/kg	4.2	1		05/20/14 01:15	127-18-4	
Toluene	ND	ug/kg	4.2	1		05/20/14 01:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.2	1		05/20/14 01:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.2	1		05/20/14 01:15	79-00-5	
Trichloroethene	ND	ug/kg	4.2	1		05/20/14 01:15	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.2	1		05/20/14 01:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.2	1		05/20/14 01:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.2	1		05/20/14 01:15	108-67-8	
Vinyl acetate	ND	ug/kg	42.0	1		05/20/14 01:15	108-05-4	
Vinyl chloride	ND	ug/kg	8.4	1		05/20/14 01:15	75-01-4	
Xylene (Total)	ND	ug/kg	8.4	1		05/20/14 01:15	1330-20-7	
m&p-Xylene	ND	ug/kg	8.4	1		05/20/14 01:15	179601-23-1	
o-Xylene	ND	ug/kg	4.2	1		05/20/14 01:15	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		05/20/14 01:15	2037-26-5	
4-Bromofluorobenzene (S)	101 %		70-130	1		05/20/14 01:15	460-00-4	
1,2-Dichloroethane-d4 (S)	107 %		70-132	1		05/20/14 01:15	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>9.0 %</b>		0.10	1		05/20/14 15:57		

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (1-2 ft)      Lab ID: 92201696015      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	5.7 mg/kg		5.6	1	05/16/14 16:20	05/20/14 22:58	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	66 %		41-119	1	05/16/14 16:20	05/20/14 22:58	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND mg/kg		11.3	1	05/19/14 07:05	05/21/14 04:13		N2
Aliphatic (C19-C36)	ND mg/kg		11.3	1	05/19/14 07:05	05/21/14 04:13		N2
Aromatic (C11-C22)	ND mg/kg		11.3	1	05/19/14 07:05	05/21/14 00:59		N2
<b>Surrogates</b>								
Nonatriacontane (S)	67 %		40-140	1	05/19/14 07:05	05/21/14 04:13	7194-86-7	
o-Terphenyl (S)	69 %		40-140	1	05/19/14 07:05	05/21/14 00:59	84-15-1	
2-Fluorobiphenyl (S)	76 %		40-140	1	05/19/14 07:05	05/21/14 00:59	321-60-8	
2-Bromonaphthalene (S)	79 %		40-140	1	05/19/14 07:05	05/21/14 00:59	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND mg/kg		6.0	1	05/26/14 14:38	05/27/14 02:35	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	92 %		70-167	1	05/26/14 14:38	05/27/14 02:35	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND mg/kg		2.9	1	05/21/14 16:56	05/21/14 21:57		N2
Aliphatic (C09-C12)	ND mg/kg		2.9	1	05/21/14 16:56	05/21/14 21:57		N2
Aromatic (C09-C10)	ND mg/kg		2.9	1	05/21/14 16:56	05/21/14 21:57		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	119 %		70-130	1	05/21/14 16:56	05/21/14 21:57	460-00-4	
4-Bromofluorobenzene (PID) (S)	118 %		70-130	1	05/21/14 16:56	05/21/14 21:57	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	10.0 mg/kg		0.39	1	05/22/14 14:40	05/23/14 20:52	7440-47-3	
Lead	7.3 mg/kg		0.39	1	05/22/14 14:40	05/23/14 20:52	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	83-32-9	
Acenaphthylene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	208-96-8	
Aniline	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	62-53-3	
Anthracene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	120-12-7	
Benzo(a)anthracene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	56-55-3	
Benzo(a)pyrene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	207-08-9	
Benzoic Acid	ND ug/kg		1860	1	05/19/14 07:57	05/23/14 21:11	65-85-0	
Benzyl alcohol	ND ug/kg		743	1	05/19/14 07:57	05/23/14 21:11	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	101-55-3	
Butylbenzylphthalate	ND ug/kg		371	1	05/19/14 07:57	05/23/14 21:11	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		743	1	05/19/14 07:57	05/23/14 21:11	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (1-2 ft)**      **Lab ID: 92201696015**      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	108-60-1	
2-Chloronaphthalene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	91-58-7	
2-Chlorophenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	7005-72-3	
Chrysene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	53-70-3	
Dibenzofuran	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	120-83-2	
Diethylphthalate	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	105-67-9	
Dimethylphthalate	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	131-11-3	
Di-n-butylphthalate	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	743	1	05/19/14 07:57	05/23/14 21:11	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	606-20-2	
Di-n-octylphthalate	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	117-81-7	
Fluoranthene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	206-44-0	
Fluorene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	87-68-3	
Hexachlorobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	77-47-4	
Hexachloroethane	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	193-39-5	
Isophorone	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	78-59-1	
1-Methylnaphthalene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	90-12-0	
2-Methylnaphthalene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11		
Naphthalene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	91-20-3	
2-Nitroaniline	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	88-74-4	
3-Nitroaniline	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	99-09-2	
4-Nitroaniline	ND	ug/kg	743	1	05/19/14 07:57	05/23/14 21:11	100-01-6	
Nitrobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	98-95-3	
2-Nitrophenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	88-75-5	
4-Nitrophenol	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	621-64-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (1-2 ft)**      **Lab ID: 92201696015**      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	86-30-6	
Pentachlorophenol	ND	ug/kg	1860	1	05/19/14 07:57	05/23/14 21:11	87-86-5	
Phenanthrene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	85-01-8	
Phenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	108-95-2	
Pyrene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	371	1	05/19/14 07:57	05/23/14 21:11	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	62 %		23-110	1	05/19/14 07:57	05/23/14 21:11	4165-60-0	
2-Fluorobiphenyl (S)	71 %		30-110	1	05/19/14 07:57	05/23/14 21:11	321-60-8	
Terphenyl-d14 (S)	78 %		28-110	1	05/19/14 07:57	05/23/14 21:11	1718-51-0	
Phenol-d6 (S)	71 %		22-110	1	05/19/14 07:57	05/23/14 21:11	13127-88-3	
2-Fluorophenol (S)	64 %		13-110	1	05/19/14 07:57	05/23/14 21:11	367-12-4	
2,4,6-Tribromophenol (S)	83 %		27-110	1	05/19/14 07:57	05/23/14 21:11	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	72.8	1		05/20/14 01:35	67-64-1	
Benzene	ND	ug/kg	3.6	1		05/20/14 01:35	71-43-2	
Bromobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	108-86-1	
Bromochloromethane	ND	ug/kg	3.6	1		05/20/14 01:35	74-97-5	
Bromodichloromethane	ND	ug/kg	3.6	1		05/20/14 01:35	75-27-4	
Bromoform	ND	ug/kg	3.6	1		05/20/14 01:35	75-25-2	
Bromomethane	ND	ug/kg	7.3	1		05/20/14 01:35	74-83-9	
2-Butanone (MEK)	ND	ug/kg	72.8	1		05/20/14 01:35	78-93-3	
n-Butylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	98-06-6	
Carbon tetrachloride	ND	ug/kg	3.6	1		05/20/14 01:35	56-23-5	
Chlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	108-90-7	
Chloroethane	ND	ug/kg	7.3	1		05/20/14 01:35	75-00-3	
Chloroform	ND	ug/kg	3.6	1		05/20/14 01:35	67-66-3	
Chloromethane	ND	ug/kg	7.3	1		05/20/14 01:35	74-87-3	
2-Chlorotoluene	ND	ug/kg	3.6	1		05/20/14 01:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	3.6	1		05/20/14 01:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.6	1		05/20/14 01:35	96-12-8	
Dibromochloromethane	ND	ug/kg	3.6	1		05/20/14 01:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	3.6	1		05/20/14 01:35	106-93-4	
Dibromomethane	ND	ug/kg	3.6	1		05/20/14 01:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	7.3	1		05/20/14 01:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	3.6	1		05/20/14 01:35	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (1-2 ft)**      **Lab ID: 92201696015**      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	3.6	1		05/20/14 01:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	3.6	1		05/20/14 01:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	3.6	1		05/20/14 01:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	3.6	1		05/20/14 01:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	3.6	1		05/20/14 01:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	3.6	1		05/20/14 01:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	3.6	1		05/20/14 01:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	3.6	1		05/20/14 01:35	10061-02-6	
Diisopropyl ether	ND	ug/kg	3.6	1		05/20/14 01:35	108-20-3	
Ethylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	3.6	1		05/20/14 01:35	87-68-3	
2-Hexanone	ND	ug/kg	36.4	1		05/20/14 01:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	3.6	1		05/20/14 01:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	3.6	1		05/20/14 01:35	99-87-6	
Methylene Chloride	ND	ug/kg	14.6	1		05/20/14 01:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	36.4	1		05/20/14 01:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	3.6	1		05/20/14 01:35	1634-04-4	
Naphthalene	ND	ug/kg	3.6	1		05/20/14 01:35	91-20-3	
n-Propylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	103-65-1	
Styrene	ND	ug/kg	3.6	1		05/20/14 01:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	79-34-5	
Tetrachloroethene	7.5	ug/kg	3.6	1		05/20/14 01:35	127-18-4	
Toluene	ND	ug/kg	3.6	1		05/20/14 01:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	3.6	1		05/20/14 01:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	3.6	1		05/20/14 01:35	79-00-5	
Trichloroethene	ND	ug/kg	3.6	1		05/20/14 01:35	79-01-6	
Trichlorofluoromethane	ND	ug/kg	3.6	1		05/20/14 01:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	3.6	1		05/20/14 01:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	3.6	1		05/20/14 01:35	108-67-8	
Vinyl acetate	ND	ug/kg	36.4	1		05/20/14 01:35	108-05-4	
Vinyl chloride	ND	ug/kg	7.3	1		05/20/14 01:35	75-01-4	
Xylene (Total)	ND	ug/kg	7.3	1		05/20/14 01:35	1330-20-7	
m&p-Xylene	ND	ug/kg	7.3	1		05/20/14 01:35	179601-23-1	
o-Xylene	ND	ug/kg	3.6	1		05/20/14 01:35	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		05/20/14 01:35	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		05/20/14 01:35	460-00-4	
1,2-Dichloroethane-d4 (S)	112 %		70-132	1		05/20/14 01:35	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **11.2 %**      0.10      1      05/20/14 15:57

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (4-5 ft)**      **Lab ID: 92201696016**      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH      Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.0	1	05/18/14 04:39	05/19/14 01:53		N2
Aliphatic (C09-C12)	ND	mg/kg	2.0	1	05/18/14 04:39	05/19/14 01:53		N2
Aromatic (C09-C10)	ND	mg/kg	2.0	1	05/18/14 04:39	05/19/14 01:53		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	95 %		70-130	1	05/18/14 04:39	05/19/14 01:53	460-00-4	
4-Bromofluorobenzene (PID) (S)	94 %		70-130	1	05/18/14 04:39	05/19/14 01:53	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010      Preparation Method: EPA 3050								
Chromium	<b>6.7</b>	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:55	7440-47-3	
Lead	<b>8.5</b>	mg/kg	0.36	1	05/22/14 14:40	05/23/14 20:55	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	80.4	1		05/20/14 01:55	67-64-1	
Benzene	ND	ug/kg	4.0	1		05/20/14 01:55	71-43-2	
Bromobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	108-86-1	
Bromochloromethane	ND	ug/kg	4.0	1		05/20/14 01:55	74-97-5	
Bromodichloromethane	ND	ug/kg	4.0	1		05/20/14 01:55	75-27-4	
Bromoform	ND	ug/kg	4.0	1		05/20/14 01:55	75-25-2	
Bromomethane	ND	ug/kg	8.0	1		05/20/14 01:55	74-83-9	
2-Butanone (MEK)	ND	ug/kg	80.4	1		05/20/14 01:55	78-93-3	
n-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.0	1		05/20/14 01:55	56-23-5	
Chlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	108-90-7	
Chloroethane	ND	ug/kg	8.0	1		05/20/14 01:55	75-00-3	
Chloroform	ND	ug/kg	4.0	1		05/20/14 01:55	67-66-3	
Chloromethane	ND	ug/kg	8.0	1		05/20/14 01:55	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 01:55	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 01:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.0	1		05/20/14 01:55	96-12-8	
Dibromochloromethane	ND	ug/kg	4.0	1		05/20/14 01:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.0	1		05/20/14 01:55	106-93-4	
Dibromomethane	ND	ug/kg	4.0	1		05/20/14 01:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.0	1		05/20/14 01:55	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 01:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 01:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 01:55	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 01:55	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 01:55	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 01:55	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-08 (4-5 ft)**      **Lab ID: 92201696016**      Collected: 05/15/14 14:20      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 01:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 01:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 01:55	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.0	1		05/20/14 01:55	108-20-3	
Ethylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.0	1		05/20/14 01:55	87-68-3	
2-Hexanone	ND	ug/kg	40.2	1		05/20/14 01:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.0	1		05/20/14 01:55	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.0	1		05/20/14 01:55	99-87-6	
Methylene Chloride	ND	ug/kg	16.1	1		05/20/14 01:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	40.2	1		05/20/14 01:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.0	1		05/20/14 01:55	1634-04-4	
Naphthalene	ND	ug/kg	4.0	1		05/20/14 01:55	91-20-3	
n-Propylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	103-65-1	
Styrene	ND	ug/kg	4.0	1		05/20/14 01:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	79-34-5	
Tetrachloroethene	6.9	ug/kg	4.0	1		05/20/14 01:55	127-18-4	
Toluene	ND	ug/kg	4.0	1		05/20/14 01:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 01:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 01:55	79-00-5	
Trichloroethene	ND	ug/kg	4.0	1		05/20/14 01:55	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.0	1		05/20/14 01:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.0	1		05/20/14 01:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 01:55	108-67-8	
Vinyl acetate	ND	ug/kg	40.2	1		05/20/14 01:55	108-05-4	
Vinyl chloride	ND	ug/kg	8.0	1		05/20/14 01:55	75-01-4	
Xylene (Total)	ND	ug/kg	8.0	1		05/20/14 01:55	1330-20-7	
m&p-Xylene	ND	ug/kg	8.0	1		05/20/14 01:55	179601-23-1	
o-Xylene	ND	ug/kg	4.0	1		05/20/14 01:55	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	103 %		70-130	1		05/20/14 01:55	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		05/20/14 01:55	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %		70-132	1		05/20/14 01:55	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	13.3 %		0.10	1		05/20/14 15:58		

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: Dup-1**      **Lab ID: 92201696017**      Collected: 05/15/14 00:00      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	6.5 mg/kg		5.9	1	05/16/14 16:20	05/20/14 22:58	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	66 %		41-119	1	05/16/14 16:20	05/20/14 22:58	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND mg/kg		11.8	1	05/19/14 07:05	05/21/14 04:45		N2
Aliphatic (C19-C36)	ND mg/kg		11.8	1	05/19/14 07:05	05/21/14 04:45		N2
Aromatic (C11-C22)	ND mg/kg		11.8	1	05/19/14 07:05	05/21/14 02:03		N2
<b>Surrogates</b>								
Nonatriacontane (S)	59 %		40-140	1	05/19/14 07:05	05/21/14 04:45	7194-86-7	
o-Terphenyl (S)	78 %		40-140	1	05/19/14 07:05	05/21/14 02:03	84-15-1	
2-Fluorobiphenyl (S)	83 %		40-140	1	05/19/14 07:05	05/21/14 02:03	321-60-8	
2-Bromonaphthalene (S)	88 %		40-140	1	05/19/14 07:05	05/21/14 02:03	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND mg/kg		10.7	1	05/26/14 14:38	05/27/14 02:58	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	95 %		70-167	1	05/26/14 14:38	05/27/14 02:58	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND mg/kg		3.4	1	05/21/14 16:56	05/21/14 22:20		N2
Aliphatic (C09-C12)	ND mg/kg		3.4	1	05/21/14 16:56	05/21/14 22:20		N2
Aromatic (C09-C10)	ND mg/kg		3.4	1	05/21/14 16:56	05/21/14 22:20		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	119 %		70-130	1	05/21/14 16:56	05/21/14 22:20	460-00-4	
4-Bromofluorobenzene (PID) (S)	118 %		70-130	1	05/21/14 16:56	05/21/14 22:20	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	5.1 mg/kg		0.32	1	05/22/14 14:40	05/23/14 20:58	7440-47-3	
Lead	39.1 mg/kg		0.32	1	05/22/14 14:40	05/23/14 20:58	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	83-32-9	
Acenaphthylene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	208-96-8	
Aniline	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	62-53-3	
Anthracene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	120-12-7	
Benzo(a)anthracene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	56-55-3	
Benzo(a)pyrene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	207-08-9	
Benzoic Acid	ND ug/kg		1950	1	05/19/14 07:57	05/23/14 21:42	65-85-0	
Benzyl alcohol	ND ug/kg		780	1	05/19/14 07:57	05/23/14 21:42	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	101-55-3	
Butylbenzylphthalate	ND ug/kg		390	1	05/19/14 07:57	05/23/14 21:42	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		780	1	05/19/14 07:57	05/23/14 21:42	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: Dup-1**      **Lab ID: 92201696017**      Collected: 05/15/14 00:00      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	108-60-1	
2-Chloronaphthalene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	91-58-7	
2-Chlorophenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	7005-72-3	
Chrysene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	53-70-3	
Dibenzofuran	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	120-83-2	
Diethylphthalate	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	105-67-9	
Dimethylphthalate	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	131-11-3	
Di-n-butylphthalate	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	780	1	05/19/14 07:57	05/23/14 21:42	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	606-20-2	
Di-n-octylphthalate	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	117-81-7	
Fluoranthene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	206-44-0	
Fluorene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	87-68-3	
Hexachlorobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	77-47-4	
Hexachloroethane	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	193-39-5	
Isophorone	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	78-59-1	
1-Methylnaphthalene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	90-12-0	
2-Methylnaphthalene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42		
Naphthalene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	91-20-3	
2-Nitroaniline	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	88-74-4	
3-Nitroaniline	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	99-09-2	
4-Nitroaniline	ND	ug/kg	780	1	05/19/14 07:57	05/23/14 21:42	100-01-6	
Nitrobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	98-95-3	
2-Nitrophenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	88-75-5	
4-Nitrophenol	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: Dup-1**      **Lab ID: 92201696017**      Collected: 05/15/14 00:00      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	86-30-6	
Pentachlorophenol	ND	ug/kg	1950	1	05/19/14 07:57	05/23/14 21:42	87-86-5	
Phenanthrene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	85-01-8	
Phenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	108-95-2	
Pyrene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	390	1	05/19/14 07:57	05/23/14 21:42	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	65 %		23-110	1	05/19/14 07:57	05/23/14 21:42	4165-60-0	
2-Fluorobiphenyl (S)	74 %		30-110	1	05/19/14 07:57	05/23/14 21:42	321-60-8	
Terphenyl-d14 (S)	70 %		28-110	1	05/19/14 07:57	05/23/14 21:42	1718-51-0	
Phenol-d6 (S)	71 %		22-110	1	05/19/14 07:57	05/23/14 21:42	13127-88-3	
2-Fluorophenol (S)	64 %		13-110	1	05/19/14 07:57	05/23/14 21:42	367-12-4	
2,4,6-Tribromophenol (S)	82 %		27-110	1	05/19/14 07:57	05/23/14 21:42	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	79.1	1		05/20/14 02:15	67-64-1	
Benzene	ND	ug/kg	4.0	1		05/20/14 02:15	71-43-2	
Bromobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	108-86-1	
Bromochloromethane	ND	ug/kg	4.0	1		05/20/14 02:15	74-97-5	
Bromodichloromethane	ND	ug/kg	4.0	1		05/20/14 02:15	75-27-4	
Bromoform	ND	ug/kg	4.0	1		05/20/14 02:15	75-25-2	
Bromomethane	ND	ug/kg	7.9	1		05/20/14 02:15	74-83-9	
2-Butanone (MEK)	ND	ug/kg	79.1	1		05/20/14 02:15	78-93-3	
n-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.0	1		05/20/14 02:15	56-23-5	
Chlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	108-90-7	
Chloroethane	ND	ug/kg	7.9	1		05/20/14 02:15	75-00-3	
Chloroform	ND	ug/kg	4.0	1		05/20/14 02:15	67-66-3	
Chloromethane	ND	ug/kg	7.9	1		05/20/14 02:15	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 02:15	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 02:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.0	1		05/20/14 02:15	96-12-8	
Dibromochloromethane	ND	ug/kg	4.0	1		05/20/14 02:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.0	1		05/20/14 02:15	106-93-4	
Dibromomethane	ND	ug/kg	4.0	1		05/20/14 02:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	7.9	1		05/20/14 02:15	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:15	75-35-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

**Sample: Dup-1**      **Lab ID: 92201696017**      Collected: 05/15/14 00:00      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:15	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:15	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:15	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:15	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:15	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.0	1		05/20/14 02:15	108-20-3	
Ethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.0	1		05/20/14 02:15	87-68-3	
2-Hexanone	ND	ug/kg	39.5	1		05/20/14 02:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.0	1		05/20/14 02:15	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.0	1		05/20/14 02:15	99-87-6	
Methylene Chloride	ND	ug/kg	15.8	1		05/20/14 02:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	39.5	1		05/20/14 02:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.0	1		05/20/14 02:15	1634-04-4	
Naphthalene	ND	ug/kg	4.0	1		05/20/14 02:15	91-20-3	
n-Propylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	103-65-1	
Styrene	ND	ug/kg	4.0	1		05/20/14 02:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	79-34-5	
Tetrachloroethene	7.6	ug/kg	4.0	1		05/20/14 02:15	127-18-4	
Toluene	ND	ug/kg	4.0	1		05/20/14 02:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 02:15	79-00-5	
Trichloroethene	ND	ug/kg	4.0	1		05/20/14 02:15	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.0	1		05/20/14 02:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.0	1		05/20/14 02:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:15	108-67-8	
Vinyl acetate	ND	ug/kg	39.5	1		05/20/14 02:15	108-05-4	
Vinyl chloride	ND	ug/kg	7.9	1		05/20/14 02:15	75-01-4	
Xylene (Total)	ND	ug/kg	7.9	1		05/20/14 02:15	1330-20-7	
m&p-Xylene	ND	ug/kg	7.9	1		05/20/14 02:15	179601-23-1	
o-Xylene	ND	ug/kg	4.0	1		05/20/14 02:15	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	102	%	70-130	1		05/20/14 02:15	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130	1		05/20/14 02:15	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132	1		05/20/14 02:15	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **15.3** %      0.10      1      05/20/14 15:58

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-09 (1-2 ft) Lab ID: 92201696018** Collected: 05/15/14 14:45 Received: 05/16/14 09:45 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.5	1	05/16/14 16:20	05/20/14 23:21	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	67 %		41-119	1	05/16/14 16:20	05/20/14 23:21	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.0	1	05/19/14 07:05	05/21/14 05:17		N2
Aliphatic (C19-C36)	ND	mg/kg	11.0	1	05/19/14 07:05	05/21/14 05:17		N2
Aromatic (C11-C22)	ND	mg/kg	11.0	1	05/19/14 07:05	05/21/14 02:36		N2
<b>Surrogates</b>								
Nonatriacontane (S)	66 %		40-140	1	05/19/14 07:05	05/21/14 05:17	7194-86-7	
o-Terphenyl (S)	62 %		40-140	1	05/19/14 07:05	05/21/14 02:36	84-15-1	
2-Fluorobiphenyl (S)	71 %		40-140	1	05/19/14 07:05	05/21/14 02:36	321-60-8	
2-Bromonaphthalene (S)	78 %		40-140	1	05/19/14 07:05	05/21/14 02:36	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.2	1	05/26/14 14:38	05/27/14 03:21	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98 %		70-167	1	05/26/14 14:38	05/27/14 03:21	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.7	1	05/21/14 16:56	05/21/14 22:43		N2
Aliphatic (C09-C12)	ND	mg/kg	2.7	1	05/21/14 16:56	05/21/14 22:43		N2
Aromatic (C09-C10)	ND	mg/kg	2.7	1	05/21/14 16:56	05/21/14 22:43		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	115 %		70-130	1	05/21/14 16:56	05/21/14 22:43	460-00-4	
4-Bromofluorobenzene (PID) (S)	114 %		70-130	1	05/21/14 16:56	05/21/14 22:43	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	5.4	mg/kg	0.43	1	05/22/14 14:40	05/23/14 21:02	7440-47-3	
Lead	10.8	mg/kg	0.43	1	05/22/14 14:40	05/23/14 21:02	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	83-32-9	
Acenaphthylene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	208-96-8	
Aniline	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	62-53-3	
Anthracene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	120-12-7	
Benzo(a)anthracene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	56-55-3	
Benzo(a)pyrene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	207-08-9	
Benzoic Acid	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	65-85-0	
Benzyl alcohol	ND	ug/kg	727	1	05/19/14 07:57	05/23/14 22:14	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	101-55-3	
Butylbenzylphthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	727	1	05/19/14 07:57	05/23/14 22:14	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-09 (1-2 ft)      Lab ID: 92201696018      Collected: 05/15/14 14:45      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	108-60-1	
2-Chloronaphthalene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	91-58-7	
2-Chlorophenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	7005-72-3	
Chrysene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	53-70-3	
Dibenzofuran	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	120-83-2	
Diethylphthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	105-67-9	
Dimethylphthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	131-11-3	
Di-n-butylphthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	727	1	05/19/14 07:57	05/23/14 22:14	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	606-20-2	
Di-n-octylphthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	117-81-7	
Fluoranthene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	206-44-0	
Fluorene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	87-68-3	
Hexachlorobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	77-47-4	
Hexachloroethane	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	193-39-5	
Isophorone	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	78-59-1	
1-Methylnaphthalene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	90-12-0	
2-Methylnaphthalene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14		
Naphthalene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	91-20-3	
2-Nitroaniline	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	88-74-4	
3-Nitroaniline	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	99-09-2	
4-Nitroaniline	ND	ug/kg	727	1	05/19/14 07:57	05/23/14 22:14	100-01-6	
Nitrobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	98-95-3	
2-Nitrophenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	88-75-5	
4-Nitrophenol	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-09 (1-2 ft)      Lab ID: 92201696018      Collected: 05/15/14 14:45      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	86-30-6	
Pentachlorophenol	ND	ug/kg	1820	1	05/19/14 07:57	05/23/14 22:14	87-86-5	
Phenanthrene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	85-01-8	
Phenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	108-95-2	
Pyrene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	364	1	05/19/14 07:57	05/23/14 22:14	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	57 %		23-110	1	05/19/14 07:57	05/23/14 22:14	4165-60-0	
2-Fluorobiphenyl (S)	66 %		30-110	1	05/19/14 07:57	05/23/14 22:14	321-60-8	
Terphenyl-d14 (S)	69 %		28-110	1	05/19/14 07:57	05/23/14 22:14	1718-51-0	
Phenol-d6 (S)	65 %		22-110	1	05/19/14 07:57	05/23/14 22:14	13127-88-3	
2-Fluorophenol (S)	60 %		13-110	1	05/19/14 07:57	05/23/14 22:14	367-12-4	
2,4,6-Tribromophenol (S)	81 %		27-110	1	05/19/14 07:57	05/23/14 22:14	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	80.1	1		05/20/14 02:35	67-64-1	
Benzene	ND	ug/kg	4.0	1		05/20/14 02:35	71-43-2	
Bromobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	108-86-1	
Bromochloromethane	ND	ug/kg	4.0	1		05/20/14 02:35	74-97-5	
Bromodichloromethane	ND	ug/kg	4.0	1		05/20/14 02:35	75-27-4	
Bromoform	ND	ug/kg	4.0	1		05/20/14 02:35	75-25-2	
Bromomethane	ND	ug/kg	8.0	1		05/20/14 02:35	74-83-9	
2-Butanone (MEK)	ND	ug/kg	80.1	1		05/20/14 02:35	78-93-3	
n-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.0	1		05/20/14 02:35	56-23-5	
Chlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	108-90-7	
Chloroethane	ND	ug/kg	8.0	1		05/20/14 02:35	75-00-3	
Chloroform	ND	ug/kg	4.0	1		05/20/14 02:35	67-66-3	
Chloromethane	ND	ug/kg	8.0	1		05/20/14 02:35	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 02:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 02:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.0	1		05/20/14 02:35	96-12-8	
Dibromochloromethane	ND	ug/kg	4.0	1		05/20/14 02:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.0	1		05/20/14 02:35	106-93-4	
Dibromomethane	ND	ug/kg	4.0	1		05/20/14 02:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.0	1		05/20/14 02:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:35	75-35-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

**Sample: B-18-09 (1-2 ft)      Lab ID: 92201696018      Collected: 05/15/14 14:45      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 02:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 02:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 02:35	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.0	1		05/20/14 02:35	108-20-3	
Ethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.0	1		05/20/14 02:35	87-68-3	
2-Hexanone	ND	ug/kg	40.0	1		05/20/14 02:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.0	1		05/20/14 02:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.0	1		05/20/14 02:35	99-87-6	
Methylene Chloride	ND	ug/kg	16.0	1		05/20/14 02:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	40.0	1		05/20/14 02:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.0	1		05/20/14 02:35	1634-04-4	
Naphthalene	ND	ug/kg	4.0	1		05/20/14 02:35	91-20-3	
n-Propylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	103-65-1	
Styrene	ND	ug/kg	4.0	1		05/20/14 02:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	79-34-5	
Tetrachloroethene	ND	ug/kg	4.0	1		05/20/14 02:35	127-18-4	
Toluene	ND	ug/kg	4.0	1		05/20/14 02:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 02:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 02:35	79-00-5	
Trichloroethene	ND	ug/kg	4.0	1		05/20/14 02:35	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.0	1		05/20/14 02:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.0	1		05/20/14 02:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 02:35	108-67-8	
Vinyl acetate	ND	ug/kg	40.0	1		05/20/14 02:35	108-05-4	
Vinyl chloride	ND	ug/kg	8.0	1		05/20/14 02:35	75-01-4	
Xylene (Total)	ND	ug/kg	8.0	1		05/20/14 02:35	1330-20-7	
m&p-Xylene	ND	ug/kg	8.0	1		05/20/14 02:35	179601-23-1	
o-Xylene	ND	ug/kg	4.0	1		05/20/14 02:35	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	104 %		70-130	1		05/20/14 02:35	2037-26-5	
4-Bromofluorobenzene (S)	100 %		70-130	1		05/20/14 02:35	460-00-4	
1,2-Dichloroethane-d4 (S)	111 %		70-132	1		05/20/14 02:35	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **9.3 %**      0.10      1      05/20/14 15:58

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-09 (4-5 ft)      Lab ID: 92201696019      Collected: 05/15/14 14:45      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.4	1	05/21/14 16:56	05/21/14 23:06		N2
Aliphatic (C09-C12)	ND	mg/kg	2.4	1	05/21/14 16:56	05/21/14 23:06		N2
Aromatic (C09-C10)	ND	mg/kg	2.4	1	05/21/14 16:56	05/21/14 23:06		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	116 %		70-130	1	05/21/14 16:56	05/21/14 23:06	460-00-4	
4-Bromofluorobenzene (PID) (S)	116 %		70-130	1	05/21/14 16:56	05/21/14 23:06	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>6.5</b>	mg/kg	0.40	1	05/22/14 14:40	05/23/14 21:05	7440-47-3	
Lead	<b>18.0</b>	mg/kg	0.40	1	05/22/14 14:40	05/23/14 21:05	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	86.1	1		05/20/14 02:54	67-64-1	
Benzene	ND	ug/kg	4.3	1		05/20/14 02:54	71-43-2	
Bromobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	108-86-1	
Bromochloromethane	ND	ug/kg	4.3	1		05/20/14 02:54	74-97-5	
Bromodichloromethane	ND	ug/kg	4.3	1		05/20/14 02:54	75-27-4	
Bromoform	ND	ug/kg	4.3	1		05/20/14 02:54	75-25-2	
Bromomethane	ND	ug/kg	8.6	1		05/20/14 02:54	74-83-9	
2-Butanone (MEK)	ND	ug/kg	86.1	1		05/20/14 02:54	78-93-3	
n-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.3	1		05/20/14 02:54	56-23-5	
Chlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	108-90-7	
Chloroethane	ND	ug/kg	8.6	1		05/20/14 02:54	75-00-3	
Chloroform	ND	ug/kg	4.3	1		05/20/14 02:54	67-66-3	
Chloromethane	ND	ug/kg	8.6	1		05/20/14 02:54	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.3	1		05/20/14 02:54	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.3	1		05/20/14 02:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.3	1		05/20/14 02:54	96-12-8	
Dibromochloromethane	ND	ug/kg	4.3	1		05/20/14 02:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.3	1		05/20/14 02:54	106-93-4	
Dibromomethane	ND	ug/kg	4.3	1		05/20/14 02:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.6	1		05/20/14 02:54	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 02:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 02:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/20/14 02:54	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 02:54	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 02:54	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.3	1		05/20/14 02:54	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-09 (4-5 ft)**      **Lab ID: 92201696019**      Collected: 05/15/14 14:45      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 02:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 02:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/20/14 02:54	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.3	1		05/20/14 02:54	108-20-3	
Ethylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.3	1		05/20/14 02:54	87-68-3	
2-Hexanone	ND	ug/kg	43.0	1		05/20/14 02:54	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.3	1		05/20/14 02:54	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.3	1		05/20/14 02:54	99-87-6	
Methylene Chloride	ND	ug/kg	17.2	1		05/20/14 02:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	43.0	1		05/20/14 02:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1		05/20/14 02:54	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1		05/20/14 02:54	91-20-3	
n-Propylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	103-65-1	
Styrene	ND	ug/kg	4.3	1		05/20/14 02:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	79-34-5	
Tetrachloroethene	ND	ug/kg	4.3	1		05/20/14 02:54	127-18-4	
Toluene	ND	ug/kg	4.3	1		05/20/14 02:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.3	1		05/20/14 02:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.3	1		05/20/14 02:54	79-00-5	
Trichloroethene	ND	ug/kg	4.3	1		05/20/14 02:54	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.3	1		05/20/14 02:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.3	1		05/20/14 02:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.3	1		05/20/14 02:54	108-67-8	
Vinyl acetate	ND	ug/kg	43.0	1		05/20/14 02:54	108-05-4	
Vinyl chloride	ND	ug/kg	8.6	1		05/20/14 02:54	75-01-4	
Xylene (Total)	ND	ug/kg	8.6	1		05/20/14 02:54	1330-20-7	
m&p-Xylene	ND	ug/kg	8.6	1		05/20/14 02:54	179601-23-1	
o-Xylene	ND	ug/kg	4.3	1		05/20/14 02:54	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		05/20/14 02:54	2037-26-5	
4-Bromofluorobenzene (S)	93 %		70-130	1		05/20/14 02:54	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		70-132	1		05/20/14 02:54	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>9.9 %</b>		0.10	1		05/20/14 15:58		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (1-2 ft) Lab ID: 92201696020** Collected: 05/15/14 14:55 Received: 05/16/14 09:45 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546								
Diesel Components	16.4	mg/kg	5.6	1	05/16/14 16:20	05/20/14 23:21	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	75	%	41-119	1	05/16/14 16:20	05/20/14 23:21	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 05:49		N2
Aliphatic (C19-C36)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 05:49		N2
Aromatic (C11-C22)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 03:08		N2
<b>Surrogates</b>								
Nonatriacontane (S)	69	%	40-140	1	05/19/14 07:05	05/21/14 05:49	7194-86-7	
o-Terphenyl (S)	65	%	40-140	1	05/19/14 07:05	05/21/14 03:08	84-15-1	
2-Fluorobiphenyl (S)	71	%	40-140	1	05/19/14 07:05	05/21/14 03:08	321-60-8	
2-Bromonaphthalene (S)	76	%	40-140	1	05/19/14 07:05	05/21/14 03:08	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.3	1	05/26/14 14:38	05/27/14 03:44	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	94	%	70-167	1	05/26/14 14:38	05/27/14 03:44	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	4.7	1	05/21/14 16:56	05/21/14 23:29		N2
Aliphatic (C09-C12)	ND	mg/kg	4.7	1	05/21/14 16:56	05/21/14 23:29		N2
Aromatic (C09-C10)	ND	mg/kg	4.7	1	05/21/14 16:56	05/21/14 23:29		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	109	%	70-130	1	05/21/14 16:56	05/21/14 23:29	460-00-4	
4-Bromofluorobenzene (PID) (S)	108	%	70-130	1	05/21/14 16:56	05/21/14 23:29	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	4.1	mg/kg	0.30	1	05/22/14 14:40	05/23/14 21:08	7440-47-3	
Lead	170	mg/kg	0.30	1	05/22/14 14:40	05/23/14 21:08	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	83-32-9	
Acenaphthylene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	208-96-8	
Aniline	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	62-53-3	
Anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	120-12-7	
Benzo(a)anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	56-55-3	
Benzo(a)pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	50-32-8	IO
Benzo(b)fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	205-99-2	IO
Benzo(g,h,i)perylene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	191-24-2	IO
Benzo(k)fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	207-08-9	IO
Benzoic Acid	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	65-85-0	
Benzyl alcohol	ND	ug/kg	738	1	05/19/14 07:57	05/23/14 22:46	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	101-55-3	
Butylbenzylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	738	1	05/19/14 07:57	05/23/14 22:46	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (1-2 ft)**      **Lab ID: 92201696020**      Collected: 05/15/14 14:55      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	108-60-1	
2-Chloronaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	91-58-7	
2-Chlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	7005-72-3	
Chrysene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	53-70-3	IO
Dibenzofuran	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	120-83-2	
Diethylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	105-67-9	
Dimethylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	131-11-3	
Di-n-butylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	738	1	05/19/14 07:57	05/23/14 22:46	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	606-20-2	
Di-n-octylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	117-81-7	
Fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	206-44-0	
Fluorene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	87-68-3	
Hexachlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	77-47-4	
Hexachloroethane	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	193-39-5	IO
Isophorone	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	78-59-1	
1-Methylnaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	90-12-0	
2-Methylnaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46		
Naphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	91-20-3	
2-Nitroaniline	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	88-74-4	
3-Nitroaniline	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	99-09-2	
4-Nitroaniline	ND	ug/kg	738	1	05/19/14 07:57	05/23/14 22:46	100-01-6	
Nitrobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	98-95-3	
2-Nitrophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	88-75-5	
4-Nitrophenol	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (1-2 ft)      Lab ID: 92201696020      Collected: 05/15/14 14:55      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	86-30-6	
Pentachlorophenol	ND	ug/kg	1850	1	05/19/14 07:57	05/23/14 22:46	87-86-5	
Phenanthrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	85-01-8	
Phenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	108-95-2	
Pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 22:46	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	47 %		23-110	1	05/19/14 07:57	05/23/14 22:46	4165-60-0	
2-Fluorobiphenyl (S)	49 %		30-110	1	05/19/14 07:57	05/23/14 22:46	321-60-8	
Terphenyl-d14 (S)	48 %		28-110	1	05/19/14 07:57	05/23/14 22:46	1718-51-0	
Phenol-d6 (S)	52 %		22-110	1	05/19/14 07:57	05/23/14 22:46	13127-88-3	
2-Fluorophenol (S)	49 %		13-110	1	05/19/14 07:57	05/23/14 22:46	367-12-4	
2,4,6-Tribromophenol (S)	70 %		27-110	1	05/19/14 07:57	05/23/14 22:46	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	82.8	1		05/20/14 03:14	67-64-1	
Benzene	ND	ug/kg	4.1	1		05/20/14 03:14	71-43-2	
Bromobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	108-86-1	
Bromochloromethane	ND	ug/kg	4.1	1		05/20/14 03:14	74-97-5	
Bromodichloromethane	ND	ug/kg	4.1	1		05/20/14 03:14	75-27-4	
Bromoform	ND	ug/kg	4.1	1		05/20/14 03:14	75-25-2	
Bromomethane	ND	ug/kg	8.3	1		05/20/14 03:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	82.8	1		05/20/14 03:14	78-93-3	
n-Butylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.1	1		05/20/14 03:14	56-23-5	
Chlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	108-90-7	
Chloroethane	ND	ug/kg	8.3	1		05/20/14 03:14	75-00-3	
Chloroform	ND	ug/kg	4.1	1		05/20/14 03:14	67-66-3	
Chloromethane	ND	ug/kg	8.3	1		05/20/14 03:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.1	1		05/20/14 03:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.1	1		05/20/14 03:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.1	1		05/20/14 03:14	96-12-8	
Dibromochloromethane	ND	ug/kg	4.1	1		05/20/14 03:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.1	1		05/20/14 03:14	106-93-4	
Dibromomethane	ND	ug/kg	4.1	1		05/20/14 03:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.3	1		05/20/14 03:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.1	1		05/20/14 03:14	75-35-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (1-2 ft)**      **Lab ID: 92201696020**      Collected: 05/15/14 14:55      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.1	1		05/20/14 03:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.1	1		05/20/14 03:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.1	1		05/20/14 03:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.1	1		05/20/14 03:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.1	1		05/20/14 03:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.1	1		05/20/14 03:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.1	1		05/20/14 03:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.1	1		05/20/14 03:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.1	1		05/20/14 03:14	108-20-3	
Ethylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.1	1		05/20/14 03:14	87-68-3	
2-Hexanone	ND	ug/kg	41.4	1		05/20/14 03:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.1	1		05/20/14 03:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.1	1		05/20/14 03:14	99-87-6	
Methylene Chloride	ND	ug/kg	16.6	1		05/20/14 03:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	41.4	1		05/20/14 03:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.1	1		05/20/14 03:14	1634-04-4	
Naphthalene	ND	ug/kg	4.1	1		05/20/14 03:14	91-20-3	
n-Propylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	103-65-1	
Styrene	ND	ug/kg	4.1	1		05/20/14 03:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	79-34-5	
Tetrachloroethene	ND	ug/kg	4.1	1		05/20/14 03:14	127-18-4	
Toluene	ND	ug/kg	4.1	1		05/20/14 03:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.1	1		05/20/14 03:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.1	1		05/20/14 03:14	79-00-5	
Trichloroethene	ND	ug/kg	4.1	1		05/20/14 03:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.1	1		05/20/14 03:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.1	1		05/20/14 03:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.1	1		05/20/14 03:14	108-67-8	
Vinyl acetate	ND	ug/kg	41.4	1		05/20/14 03:14	108-05-4	
Vinyl chloride	ND	ug/kg	8.3	1		05/20/14 03:14	75-01-4	
Xylene (Total)	ND	ug/kg	8.3	1		05/20/14 03:14	1330-20-7	
m&p-Xylene	ND	ug/kg	8.3	1		05/20/14 03:14	179601-23-1	
o-Xylene	ND	ug/kg	4.1	1		05/20/14 03:14	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		05/20/14 03:14	2037-26-5	
4-Bromofluorobenzene (S)	95 %		70-130	1		05/20/14 03:14	460-00-4	
1,2-Dichloroethane-d4 (S)	110 %		70-132	1		05/20/14 03:14	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **10.6 %**      0.10      1      05/20/14 15:58

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (4-5 ft)**      **Lab ID: 92201696021**      Collected: 05/15/14 14:55      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>		Analytical Method: MADEP VPH    Preparation Method: MADEP VPH						
Aliphatic (C05-C08)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 23:52		N2
Aliphatic (C09-C12)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 23:52		N2
Aromatic (C09-C10)	ND	mg/kg	2.6	1	05/21/14 16:56	05/21/14 23:52		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	116 %		70-130	1	05/21/14 16:56	05/21/14 23:52	460-00-4	
4-Bromofluorobenzene (PID) (S)	115 %		70-130	1	05/21/14 16:56	05/21/14 23:52	460-00-4	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010    Preparation Method: EPA 3050						
Chromium	<b>5.7</b>	mg/kg	0.29	1	05/23/14 14:00	05/23/14 21:29	7440-47-3	
Lead	<b>23.1</b>	mg/kg	0.29	1	05/23/14 14:00	05/23/14 21:29	7439-92-1	M1,R1
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	88.5	1		05/20/14 03:34	67-64-1	
Benzene	ND	ug/kg	4.4	1		05/20/14 03:34	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1		05/20/14 03:34	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1		05/20/14 03:34	75-27-4	
Bromoform	ND	ug/kg	4.4	1		05/20/14 03:34	75-25-2	
Bromomethane	ND	ug/kg	8.8	1		05/20/14 03:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	88.5	1		05/20/14 03:34	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	1		05/20/14 03:34	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	108-90-7	
Chloroethane	ND	ug/kg	8.8	1		05/20/14 03:34	75-00-3	
Chloroform	ND	ug/kg	4.4	1		05/20/14 03:34	67-66-3	
Chloromethane	ND	ug/kg	8.8	1		05/20/14 03:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1		05/20/14 03:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1		05/20/14 03:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	1		05/20/14 03:34	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1		05/20/14 03:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1		05/20/14 03:34	106-93-4	
Dibromomethane	ND	ug/kg	4.4	1		05/20/14 03:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.8	1		05/20/14 03:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1		05/20/14 03:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.4	1		05/20/14 03:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1		05/20/14 03:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1		05/20/14 03:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1		05/20/14 03:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1		05/20/14 03:34	594-20-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-10 (4-5 ft)**      **Lab ID: 92201696021**      Collected: 05/15/14 14:55      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.4	1		05/20/14 03:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1		05/20/14 03:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1		05/20/14 03:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1		05/20/14 03:34	108-20-3	
Ethylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1		05/20/14 03:34	87-68-3	
2-Hexanone	ND	ug/kg	44.2	1		05/20/14 03:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1		05/20/14 03:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.4	1		05/20/14 03:34	99-87-6	
Methylene Chloride	ND	ug/kg	17.7	1		05/20/14 03:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.2	1		05/20/14 03:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1		05/20/14 03:34	1634-04-4	
Naphthalene	ND	ug/kg	4.4	1		05/20/14 03:34	91-20-3	
n-Propylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	103-65-1	
Styrene	ND	ug/kg	4.4	1		05/20/14 03:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	79-34-5	
Tetrachloroethene	ND	ug/kg	4.4	1		05/20/14 03:34	127-18-4	
Toluene	ND	ug/kg	4.4	1		05/20/14 03:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1		05/20/14 03:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1		05/20/14 03:34	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1		05/20/14 03:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	1		05/20/14 03:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1		05/20/14 03:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1		05/20/14 03:34	108-67-8	
Vinyl acetate	ND	ug/kg	44.2	1		05/20/14 03:34	108-05-4	
Vinyl chloride	ND	ug/kg	8.8	1		05/20/14 03:34	75-01-4	
Xylene (Total)	ND	ug/kg	8.8	1		05/20/14 03:34	1330-20-7	
m&p-Xylene	ND	ug/kg	8.8	1		05/20/14 03:34	179601-23-1	
o-Xylene	ND	ug/kg	4.4	1		05/20/14 03:34	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		05/20/14 03:34	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		05/20/14 03:34	460-00-4	
1,2-Dichloroethane-d4 (S)	105 %		70-132	1		05/20/14 03:34	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>10.7 %</b>		0.10	1		05/20/14 15:58		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-11 (1-3 ft)      Lab ID: 92201696022      Collected: 05/15/14 15:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.3	1	05/21/14 16:56	05/22/14 00:15		N2
Aliphatic (C09-C12)	ND	mg/kg	2.3	1	05/21/14 16:56	05/22/14 00:15		N2
Aromatic (C09-C10)	ND	mg/kg	2.3	1	05/21/14 16:56	05/22/14 00:15		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	106 %		70-130	1	05/21/14 16:56	05/22/14 00:15	460-00-4	
4-Bromofluorobenzene (PID) (S)	105 %		70-130	1	05/21/14 16:56	05/22/14 00:15	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>4.9</b>	mg/kg	0.35	1	05/23/14 14:00	05/23/14 21:38	7440-47-3	
Lead	<b>5.5</b>	mg/kg	0.35	1	05/23/14 14:00	05/23/14 21:38	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	80.9	1		05/20/14 14:09	67-64-1	
Benzene	ND	ug/kg	4.0	1		05/20/14 14:09	71-43-2	
Bromobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	108-86-1	
Bromochloromethane	ND	ug/kg	4.0	1		05/20/14 14:09	74-97-5	
Bromodichloromethane	ND	ug/kg	4.0	1		05/20/14 14:09	75-27-4	
Bromoform	ND	ug/kg	4.0	1		05/20/14 14:09	75-25-2	
Bromomethane	ND	ug/kg	8.1	1		05/20/14 14:09	74-83-9	
2-Butanone (MEK)	ND	ug/kg	80.9	1		05/20/14 14:09	78-93-3	
n-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.0	1		05/20/14 14:09	56-23-5	
Chlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	108-90-7	
Chloroethane	ND	ug/kg	8.1	1		05/20/14 14:09	75-00-3	
Chloroform	ND	ug/kg	4.0	1		05/20/14 14:09	67-66-3	
Chloromethane	ND	ug/kg	8.1	1		05/20/14 14:09	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 14:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.0	1		05/20/14 14:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.0	1		05/20/14 14:09	96-12-8	
Dibromochloromethane	ND	ug/kg	4.0	1		05/20/14 14:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.0	1		05/20/14 14:09	106-93-4	
Dibromomethane	ND	ug/kg	4.0	1		05/20/14 14:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.1	1		05/20/14 14:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 14:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 14:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.0	1		05/20/14 14:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 14:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 14:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.0	1		05/20/14 14:09	594-20-7	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-11 (1-3 ft)      Lab ID: 92201696022      Collected: 05/15/14 15:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 14:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 14:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.0	1		05/20/14 14:09	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.0	1		05/20/14 14:09	108-20-3	
Ethylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.0	1		05/20/14 14:09	87-68-3	
2-Hexanone	ND	ug/kg	40.5	1		05/20/14 14:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.0	1		05/20/14 14:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.0	1		05/20/14 14:09	99-87-6	
Methylene Chloride	ND	ug/kg	16.2	1		05/20/14 14:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	40.5	1		05/20/14 14:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.0	1		05/20/14 14:09	1634-04-4	
Naphthalene	ND	ug/kg	4.0	1		05/20/14 14:09	91-20-3	
n-Propylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	103-65-1	
Styrene	ND	ug/kg	4.0	1		05/20/14 14:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	79-34-5	
Tetrachloroethene	ND	ug/kg	4.0	1		05/20/14 14:09	127-18-4	
Toluene	ND	ug/kg	4.0	1		05/20/14 14:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.0	1		05/20/14 14:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.0	1		05/20/14 14:09	79-00-5	
Trichloroethene	ND	ug/kg	4.0	1		05/20/14 14:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.0	1		05/20/14 14:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.0	1		05/20/14 14:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.0	1		05/20/14 14:09	108-67-8	
Vinyl acetate	ND	ug/kg	40.5	1		05/20/14 14:09	108-05-4	
Vinyl chloride	ND	ug/kg	8.1	1		05/20/14 14:09	75-01-4	
Xylene (Total)	ND	ug/kg	8.1	1		05/20/14 14:09	1330-20-7	
m&p-Xylene	ND	ug/kg	8.1	1		05/20/14 14:09	179601-23-1	
o-Xylene	ND	ug/kg	4.0	1		05/20/14 14:09	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	97 %		70-130	1		05/20/14 14:09	2037-26-5	
4-Bromofluorobenzene (S)	102 %		70-130	1		05/20/14 14:09	460-00-4	
1,2-Dichloroethane-d4 (S)	117 %		70-132	1		05/20/14 14:09	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>4.9 %</b>		0.10	1		05/20/14 15:58		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-11 (5-7 ft)      Lab ID: 92201696023      Collected: 05/15/14 15:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	6.3	1	05/16/14 16:20	05/20/14 23:45	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	77 %		41-119	1	05/16/14 16:20	05/20/14 23:45	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	12.6	1	05/19/14 07:05	05/21/14 06:22		N2
Aliphatic (C19-C36)	ND	mg/kg	12.6	1	05/19/14 07:05	05/21/14 06:22		N2
Aromatic (C11-C22)	ND	mg/kg	12.6	1	05/19/14 07:05	05/21/14 03:40		N2
<b>Surrogates</b>								
Nonatriacontane (S)	71 %		40-140	1	05/19/14 07:05	05/21/14 06:22	7194-86-7	
o-Terphenyl (S)	68 %		40-140	1	05/19/14 07:05	05/21/14 03:40	84-15-1	
2-Fluorobiphenyl (S)	65 %		40-140	1	05/19/14 07:05	05/21/14 03:40	321-60-8	
2-Bromonaphthalene (S)	75 %		40-140	1	05/19/14 07:05	05/21/14 03:40	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	7.4	1	05/26/14 14:38	05/27/14 04:07	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	94 %		70-167	1	05/26/14 14:38	05/27/14 04:07	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.5	1	05/21/14 16:56	05/22/14 00:38		N2
Aliphatic (C09-C12)	ND	mg/kg	3.5	1	05/21/14 16:56	05/22/14 00:38		N2
Aromatic (C09-C10)	ND	mg/kg	3.5	1	05/21/14 16:56	05/22/14 00:38		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	128 %		70-130	1	05/21/14 16:56	05/22/14 00:38	460-00-4	
4-Bromofluorobenzene (PID) (S)	127 %		70-130	1	05/21/14 16:56	05/22/14 00:38	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>14.0</b>	mg/kg	0.42	1	05/23/14 14:00	05/23/14 21:41	7440-47-3	
Lead	<b>7.6</b>	mg/kg	0.42	1	05/23/14 14:00	05/23/14 21:41	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	83-32-9	
Acenaphthylene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	208-96-8	
Aniline	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	62-53-3	
Anthracene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	120-12-7	
Benzo(a)anthracene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	56-55-3	
Benzo(a)pyrene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	207-08-9	
Benzoic Acid	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	65-85-0	
Benzyl alcohol	ND	ug/kg	833	1	05/19/14 07:57	05/23/14 23:17	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	101-55-3	
Butylbenzylphthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	833	1	05/19/14 07:57	05/23/14 23:17	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Sample: B-18-11 (5-7 ft) Lab ID: 92201696023 Collected: 05/15/14 15:05 Received: 05/16/14 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	108-60-1	
2-Chloronaphthalene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	91-58-7	
2-Chlorophenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	7005-72-3	
Chrysene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	53-70-3	
Dibenzofuran	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	120-83-2	
Diethylphthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	105-67-9	
Dimethylphthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	131-11-3	
Di-n-butylphthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	833	1	05/19/14 07:57	05/23/14 23:17	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	606-20-2	
Di-n-octylphthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	117-81-7	
Fluoranthene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	206-44-0	
Fluorene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	87-68-3	
Hexachlorobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	77-47-4	
Hexachloroethane	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	193-39-5	
Isophorone	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	78-59-1	
1-Methylnaphthalene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	90-12-0	
2-Methylnaphthalene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17		
Naphthalene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	91-20-3	
2-Nitroaniline	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	88-74-4	
3-Nitroaniline	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	99-09-2	
4-Nitroaniline	ND	ug/kg	833	1	05/19/14 07:57	05/23/14 23:17	100-01-6	
Nitrobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	98-95-3	
2-Nitrophenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	88-75-5	
4-Nitrophenol	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-11 (5-7 ft)      Lab ID: 92201696023      Collected: 05/15/14 15:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	86-30-6	
Pentachlorophenol	ND	ug/kg	2080	1	05/19/14 07:57	05/23/14 23:17	87-86-5	
Phenanthrene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	85-01-8	
Phenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	108-95-2	
Pyrene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	416	1	05/19/14 07:57	05/23/14 23:17	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	54 %		23-110	1	05/19/14 07:57	05/23/14 23:17	4165-60-0	
2-Fluorobiphenyl (S)	64 %		30-110	1	05/19/14 07:57	05/23/14 23:17	321-60-8	
Terphenyl-d14 (S)	74 %		28-110	1	05/19/14 07:57	05/23/14 23:17	1718-51-0	
Phenol-d6 (S)	63 %		22-110	1	05/19/14 07:57	05/23/14 23:17	13127-88-3	
2-Fluorophenol (S)	59 %		13-110	1	05/19/14 07:57	05/23/14 23:17	367-12-4	
2,4,6-Tribromophenol (S)	81 %		27-110	1	05/19/14 07:57	05/23/14 23:17	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	96.5	1		05/19/14 17:35	67-64-1	
Benzene	ND	ug/kg	4.8	1		05/19/14 17:35	71-43-2	
Bromobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	108-86-1	
Bromochloromethane	ND	ug/kg	4.8	1		05/19/14 17:35	74-97-5	
Bromodichloromethane	ND	ug/kg	4.8	1		05/19/14 17:35	75-27-4	
Bromoform	ND	ug/kg	4.8	1		05/19/14 17:35	75-25-2	
Bromomethane	ND	ug/kg	9.6	1		05/19/14 17:35	74-83-9	
2-Butanone (MEK)	ND	ug/kg	96.5	1		05/19/14 17:35	78-93-3	
n-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.8	1		05/19/14 17:35	56-23-5	
Chlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	108-90-7	
Chloroethane	ND	ug/kg	9.6	1		05/19/14 17:35	75-00-3	
Chloroform	ND	ug/kg	4.8	1		05/19/14 17:35	67-66-3	
Chloromethane	ND	ug/kg	9.6	1		05/19/14 17:35	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.8	1		05/19/14 17:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.8	1		05/19/14 17:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	1		05/19/14 17:35	96-12-8	
Dibromochloromethane	ND	ug/kg	4.8	1		05/19/14 17:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	1		05/19/14 17:35	106-93-4	
Dibromomethane	ND	ug/kg	4.8	1		05/19/14 17:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.6	1		05/19/14 17:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.8	1		05/19/14 17:35	75-35-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-11 (5-7 ft)      Lab ID: 92201696023      Collected: 05/15/14 15:05      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.8	1		05/19/14 17:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.8	1		05/19/14 17:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 17:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 17:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.8	1		05/19/14 17:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 17:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 17:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.8	1		05/19/14 17:35	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.8	1		05/19/14 17:35	108-20-3	
Ethylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	1		05/19/14 17:35	87-68-3	
2-Hexanone	ND	ug/kg	48.2	1		05/19/14 17:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	1		05/19/14 17:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.8	1		05/19/14 17:35	99-87-6	
Methylene Chloride	ND	ug/kg	19.3	1		05/19/14 17:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.2	1		05/19/14 17:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.8	1		05/19/14 17:35	1634-04-4	
Naphthalene	ND	ug/kg	4.8	1		05/19/14 17:35	91-20-3	
n-Propylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	103-65-1	
Styrene	ND	ug/kg	4.8	1		05/19/14 17:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	79-34-5	
Tetrachloroethene	ND	ug/kg	4.8	1		05/19/14 17:35	127-18-4	
Toluene	ND	ug/kg	4.8	1		05/19/14 17:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	1		05/19/14 17:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.8	1		05/19/14 17:35	79-00-5	
Trichloroethene	ND	ug/kg	4.8	1		05/19/14 17:35	79-01-6	L3
Trichlorofluoromethane	ND	ug/kg	4.8	1		05/19/14 17:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.8	1		05/19/14 17:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	1		05/19/14 17:35	108-67-8	
Vinyl acetate	ND	ug/kg	48.2	1		05/19/14 17:35	108-05-4	
Vinyl chloride	ND	ug/kg	9.6	1		05/19/14 17:35	75-01-4	
Xylene (Total)	ND	ug/kg	9.6	1		05/19/14 17:35	1330-20-7	
m&p-Xylene	ND	ug/kg	9.6	1		05/19/14 17:35	179601-23-1	
o-Xylene	ND	ug/kg	4.8	1		05/19/14 17:35	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		05/19/14 17:35	2037-26-5	
4-Bromofluorobenzene (S)	109 %		70-130	1		05/19/14 17:35	460-00-4	
1,2-Dichloroethane-d4 (S)	91 %		70-132	1		05/19/14 17:35	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **20.7 %**      0.10      1      05/20/14 15:59

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (1-3 ft)      Lab ID: 92201696024      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	3.7	1	05/21/14 16:56	05/22/14 01:01		N2
Aliphatic (C09-C12)	ND	mg/kg	3.7	1	05/21/14 16:56	05/22/14 01:01		N2
Aromatic (C09-C10)	ND	mg/kg	3.7	1	05/21/14 16:56	05/22/14 01:01		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	110 %		70-130	1	05/21/14 16:56	05/22/14 01:01	460-00-4	
4-Bromofluorobenzene (PID) (S)	109 %		70-130	1	05/21/14 16:56	05/22/14 01:01	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	<b>8.0</b>	mg/kg	0.31	1	05/23/14 14:00	05/23/14 21:45	7440-47-3	
Lead	<b>5.8</b>	mg/kg	0.31	1	05/23/14 14:00	05/23/14 21:45	7439-92-1	
<b>8260/5035A Volatile Organics</b>								
Analytical Method: EPA 8260								
Acetone	ND	ug/kg	86.9	1		05/19/14 17:55	67-64-1	
Benzene	ND	ug/kg	4.3	1		05/19/14 17:55	71-43-2	
Bromobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	108-86-1	
Bromochloromethane	ND	ug/kg	4.3	1		05/19/14 17:55	74-97-5	
Bromodichloromethane	ND	ug/kg	4.3	1		05/19/14 17:55	75-27-4	
Bromoform	ND	ug/kg	4.3	1		05/19/14 17:55	75-25-2	
Bromomethane	ND	ug/kg	8.7	1		05/19/14 17:55	74-83-9	
2-Butanone (MEK)	ND	ug/kg	86.9	1		05/19/14 17:55	78-93-3	
n-Butylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.3	1		05/19/14 17:55	56-23-5	
Chlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	108-90-7	
Chloroethane	ND	ug/kg	8.7	1		05/19/14 17:55	75-00-3	
Chloroform	ND	ug/kg	4.3	1		05/19/14 17:55	67-66-3	
Chloromethane	ND	ug/kg	8.7	1		05/19/14 17:55	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.3	1		05/19/14 17:55	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.3	1		05/19/14 17:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.3	1		05/19/14 17:55	96-12-8	
Dibromochloromethane	ND	ug/kg	4.3	1		05/19/14 17:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.3	1		05/19/14 17:55	106-93-4	
Dibromomethane	ND	ug/kg	4.3	1		05/19/14 17:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.7	1		05/19/14 17:55	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.3	1		05/19/14 17:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/19/14 17:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.3	1		05/19/14 17:55	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.3	1		05/19/14 17:55	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.3	1		05/19/14 17:55	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.3	1		05/19/14 17:55	594-20-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (1-3 ft)      Lab ID: 92201696024      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,1-Dichloropropene	ND	ug/kg	4.3	1		05/19/14 17:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/19/14 17:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.3	1		05/19/14 17:55	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.3	1		05/19/14 17:55	108-20-3	
Ethylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.3	1		05/19/14 17:55	87-68-3	
2-Hexanone	ND	ug/kg	43.4	1		05/19/14 17:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.3	1		05/19/14 17:55	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.3	1		05/19/14 17:55	99-87-6	
Methylene Chloride	ND	ug/kg	17.4	1		05/19/14 17:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	43.4	1		05/19/14 17:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1		05/19/14 17:55	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1		05/19/14 17:55	91-20-3	
n-Propylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	103-65-1	
Styrene	ND	ug/kg	4.3	1		05/19/14 17:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	79-34-5	
Tetrachloroethene	ND	ug/kg	4.3	1		05/19/14 17:55	127-18-4	
Toluene	ND	ug/kg	4.3	1		05/19/14 17:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.3	1		05/19/14 17:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.3	1		05/19/14 17:55	79-00-5	
Trichloroethene	ND	ug/kg	4.3	1		05/19/14 17:55	79-01-6	L3
Trichlorofluoromethane	ND	ug/kg	4.3	1		05/19/14 17:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.3	1		05/19/14 17:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.3	1		05/19/14 17:55	108-67-8	
Vinyl acetate	ND	ug/kg	43.4	1		05/19/14 17:55	108-05-4	
Vinyl chloride	ND	ug/kg	8.7	1		05/19/14 17:55	75-01-4	
Xylene (Total)	ND	ug/kg	8.7	1		05/19/14 17:55	1330-20-7	
m&p-Xylene	ND	ug/kg	8.7	1		05/19/14 17:55	179601-23-1	
o-Xylene	ND	ug/kg	4.3	1		05/19/14 17:55	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		05/19/14 17:55	2037-26-5	
4-Bromofluorobenzene (S)	109 %		70-130	1		05/19/14 17:55	460-00-4	
1,2-Dichloroethane-d4 (S)	92 %		70-132	1		05/19/14 17:55	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>10.1 %</b>		0.10	1		05/20/14 15:59		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (5-7 ft)      Lab ID: 92201696025      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546								
Diesel Components	ND	mg/kg	5.6	1	05/16/14 16:20	05/20/14 23:45	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	79 %		41-119	1	05/16/14 16:20	05/20/14 23:45	629-99-2	
<b>MADEP EPH NC Soil</b>								
Analytical Method: MADEP EPH    Preparation Method: MADEP EPH								
Aliphatic (C09-C18)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 06:54		N2
Aliphatic (C19-C36)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 06:54		N2
Aromatic (C11-C22)	ND	mg/kg	11.2	1	05/19/14 07:05	05/21/14 04:13		N2
<b>Surrogates</b>								
Nonatriacontane (S)	71 %		40-140	1	05/19/14 07:05	05/21/14 06:54	7194-86-7	
o-Terphenyl (S)	67 %		40-140	1	05/19/14 07:05	05/21/14 04:13	84-15-1	
2-Fluorobiphenyl (S)	67 %		40-140	1	05/19/14 07:05	05/21/14 04:13	321-60-8	
2-Bromonaphthalene (S)	73 %		40-140	1	05/19/14 07:05	05/21/14 04:13	580-13-2	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND	mg/kg	5.3	1	05/26/14 14:38	05/27/14 04:30	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	95 %		70-167	1	05/26/14 14:38	05/27/14 04:30	460-00-4	
<b>VPH NC Soil</b>								
Analytical Method: MADEP VPH    Preparation Method: MADEP VPH								
Aliphatic (C05-C08)	ND	mg/kg	2.6	1	05/21/14 16:56	05/22/14 01:24		N2
Aliphatic (C09-C12)	ND	mg/kg	2.6	1	05/21/14 16:56	05/22/14 01:24		N2
Aromatic (C09-C10)	ND	mg/kg	2.6	1	05/21/14 16:56	05/22/14 01:24		N2
<b>Surrogates</b>								
4-Bromofluorobenzene (FID) (S)	116 %		70-130	1	05/21/14 16:56	05/22/14 01:24	460-00-4	
4-Bromofluorobenzene (PID) (S)	115 %		70-130	1	05/21/14 16:56	05/22/14 01:24	460-00-4	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010    Preparation Method: EPA 3050								
Chromium	6.2	mg/kg	0.30	1	05/23/14 14:00	05/23/14 21:48	7440-47-3	
Lead	5.6	mg/kg	0.30	1	05/23/14 14:00	05/23/14 21:48	7439-92-1	
<b>8270 MSSV Microwave</b>								
Analytical Method: EPA 8270    Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	83-32-9	
Acenaphthylene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	208-96-8	
Aniline	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	62-53-3	
Anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	120-12-7	
Benzo(a)anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	56-55-3	
Benzo(a)pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	207-08-9	
Benzoic Acid	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	65-85-0	
Benzyl alcohol	ND	ug/kg	737	1	05/19/14 07:57	05/23/14 23:48	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	101-55-3	
Butylbenzylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	737	1	05/19/14 07:57	05/23/14 23:48	59-50-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (5-7 ft)      Lab ID: 92201696025      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
4-Chloroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	108-60-1	
2-Chloronaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	91-58-7	
2-Chlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	7005-72-3	
Chrysene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	53-70-3	
Dibenzofuran	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	120-83-2	
Diethylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	105-67-9	
Dimethylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	131-11-3	
Di-n-butylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	737	1	05/19/14 07:57	05/23/14 23:48	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	606-20-2	
Di-n-octylphthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	117-81-7	
Fluoranthene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	206-44-0	
Fluorene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	87-68-3	
Hexachlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	77-47-4	
Hexachloroethane	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	193-39-5	
Isophorone	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	78-59-1	
1-Methylnaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	90-12-0	
2-Methylnaphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48		
Naphthalene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	91-20-3	
2-Nitroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	88-74-4	
3-Nitroaniline	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	99-09-2	
4-Nitroaniline	ND	ug/kg	737	1	05/19/14 07:57	05/23/14 23:48	100-01-6	
Nitrobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	98-95-3	
2-Nitrophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	88-75-5	
4-Nitrophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	621-64-7	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (5-7 ft)      Lab ID: 92201696025      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid**

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270    Preparation Method: EPA 3546						
N-Nitrosodiphenylamine	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	86-30-6	
Pentachlorophenol	ND	ug/kg	1840	1	05/19/14 07:57	05/23/14 23:48	87-86-5	
Phenanthrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	85-01-8	
Phenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	108-95-2	
Pyrene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	369	1	05/19/14 07:57	05/23/14 23:48	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	49 %		23-110	1	05/19/14 07:57	05/23/14 23:48	4165-60-0	
2-Fluorobiphenyl (S)	54 %		30-110	1	05/19/14 07:57	05/23/14 23:48	321-60-8	
Terphenyl-d14 (S)	47 %		28-110	1	05/19/14 07:57	05/23/14 23:48	1718-51-0	
Phenol-d6 (S)	52 %		22-110	1	05/19/14 07:57	05/23/14 23:48	13127-88-3	
2-Fluorophenol (S)	49 %		13-110	1	05/19/14 07:57	05/23/14 23:48	367-12-4	
2,4,6-Tribromophenol (S)	67 %		27-110	1	05/19/14 07:57	05/23/14 23:48	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND	ug/kg	89.4	1		05/19/14 18:15	67-64-1	
Benzene	ND	ug/kg	4.5	1		05/19/14 18:15	71-43-2	
Bromobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	108-86-1	
Bromochloromethane	ND	ug/kg	4.5	1		05/19/14 18:15	74-97-5	
Bromodichloromethane	ND	ug/kg	4.5	1		05/19/14 18:15	75-27-4	
Bromoform	ND	ug/kg	4.5	1		05/19/14 18:15	75-25-2	
Bromomethane	ND	ug/kg	8.9	1		05/19/14 18:15	74-83-9	
2-Butanone (MEK)	ND	ug/kg	89.4	1		05/19/14 18:15	78-93-3	
n-Butylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.5	1		05/19/14 18:15	56-23-5	
Chlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	108-90-7	
Chloroethane	ND	ug/kg	8.9	1		05/19/14 18:15	75-00-3	
Chloroform	ND	ug/kg	4.5	1		05/19/14 18:15	67-66-3	
Chloromethane	ND	ug/kg	8.9	1		05/19/14 18:15	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.5	1		05/19/14 18:15	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.5	1		05/19/14 18:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	1		05/19/14 18:15	96-12-8	
Dibromochloromethane	ND	ug/kg	4.5	1		05/19/14 18:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	1		05/19/14 18:15	106-93-4	
Dibromomethane	ND	ug/kg	4.5	1		05/19/14 18:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.9	1		05/19/14 18:15	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.5	1		05/19/14 18:15	75-35-4	

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## ANALYTICAL RESULTS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

**Sample: B-18-12 (5-7 ft)**      **Lab ID: 92201696025**      Collected: 05/15/14 15:15      Received: 05/16/14 09:45      Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
cis-1,2-Dichloroethene	ND	ug/kg	4.5	1		05/19/14 18:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.5	1		05/19/14 18:15	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.5	1		05/19/14 18:15	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.5	1		05/19/14 18:15	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.5	1		05/19/14 18:15	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.5	1		05/19/14 18:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.5	1		05/19/14 18:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.5	1		05/19/14 18:15	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.5	1		05/19/14 18:15	108-20-3	
Ethylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	1		05/19/14 18:15	87-68-3	
2-Hexanone	ND	ug/kg	44.7	1		05/19/14 18:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	1		05/19/14 18:15	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.5	1		05/19/14 18:15	99-87-6	
Methylene Chloride	ND	ug/kg	17.9	1		05/19/14 18:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.7	1		05/19/14 18:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.5	1		05/19/14 18:15	1634-04-4	
Naphthalene	ND	ug/kg	4.5	1		05/19/14 18:15	91-20-3	
n-Propylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	103-65-1	
Styrene	ND	ug/kg	4.5	1		05/19/14 18:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	79-34-5	
Tetrachloroethene	ND	ug/kg	4.5	1		05/19/14 18:15	127-18-4	
Toluene	ND	ug/kg	4.5	1		05/19/14 18:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	1		05/19/14 18:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.5	1		05/19/14 18:15	79-00-5	
Trichloroethene	ND	ug/kg	4.5	1		05/19/14 18:15	79-01-6	L3
Trichlorofluoromethane	ND	ug/kg	4.5	1		05/19/14 18:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.5	1		05/19/14 18:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	1		05/19/14 18:15	108-67-8	
Vinyl acetate	ND	ug/kg	44.7	1		05/19/14 18:15	108-05-4	
Vinyl chloride	ND	ug/kg	8.9	1		05/19/14 18:15	75-01-4	
Xylene (Total)	ND	ug/kg	8.9	1		05/19/14 18:15	1330-20-7	
m&p-Xylene	ND	ug/kg	8.9	1		05/19/14 18:15	179601-23-1	
o-Xylene	ND	ug/kg	4.5	1		05/19/14 18:15	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	97 %		70-130	1		05/19/14 18:15	2037-26-5	
4-Bromofluorobenzene (S)	110 %		70-130	1		05/19/14 18:15	460-00-4	
1,2-Dichloroethane-d4 (S)	92 %		70-132	1		05/19/14 18:15	17060-07-0	

**Percent Moisture**

Analytical Method: ASTM D2974-87

Percent Moisture      **10.5 %**      0.10      1      05/21/14 14:49

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: GCV/8131 Analysis Method: EPA 8015 Modified  
 QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics  
 Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007

METHOD BLANK: 1206718 Matrix: Solid  
 Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	05/25/14 13:39	
4-Bromofluorobenzene (S)	%	84	70-167	05/25/14 13:39	

LABORATORY CONTROL SAMPLE: 1206719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	50	42.9	86	70-165	
4-Bromofluorobenzene (S)	%			87	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1206720 1206721

Parameter	Units	92201696007		1206721		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Gasoline Range Organics	mg/kg	ND	47.1	47.1	49.1	104	110	47-187	5	
4-Bromofluorobenzene (S)	%					93	95	70-167		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

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QC Batch: GCV/8139 Analysis Method: EPA 8015 Modified  
 QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics  
 Associated Lab Samples: 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

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METHOD BLANK: 1206756 Matrix: Solid  
 Associated Lab Samples: 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	05/26/14 23:31	
4-Bromofluorobenzene (S)	%	98	70-167	05/26/14 23:31	

LABORATORY CONTROL SAMPLE: 1206757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	50	51.1	102	70-165	
4-Bromofluorobenzene (S)	%			94	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1206758 1206759

Parameter	Units	92201832001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	MS Spike Conc.	MS Result	MSD Result					
Gasoline Range Organics	mg/kg	ND	49.4	49.4	51.0	52.9	103	107	47-187	4	
4-Bromofluorobenzene (S)	%						99	98	70-167		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch:	GCV/8095	Analysis Method:	MADEP VPH
QC Batch Method:	MADEP VPH	Analysis Description:	VPH NC Soil
Associated Lab Samples:	92201696016		

METHOD BLANK: 1201786 Matrix: Solid

Associated Lab Samples: 92201696016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.5	05/18/14 17:51	N2
Aliphatic (C09-C12)	mg/kg	ND	2.5	05/18/14 17:51	N2
Aromatic (C09-C10)	mg/kg	ND	2.5	05/18/14 17:51	N2
4-Bromofluorobenzene (FID) (S)	%	93	70-130	05/18/14 17:51	
4-Bromofluorobenzene (PID) (S)	%	93	70-130	05/18/14 17:51	

LABORATORY CONTROL SAMPLE & LCSD: 1201787

1201788

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	mg/kg	15	15.3	14.6	102	98	70-130	4	25	N2
Aliphatic (C09-C12)	mg/kg	15	12.5	14.4	83	96	30-130	14	25	N2
Aromatic (C09-C10)	mg/kg	5	4.5	4.4	89	89	70-130	0	25	N2
4-Bromofluorobenzene (FID) (S)	%				92	91	70-130			
4-Bromofluorobenzene (PID) (S)	%				91	91	70-130			

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch:	GCV/8096	Analysis Method:	MADEP VPH
QC Batch Method:	MADEP VPH	Analysis Description:	VPH NC Soil
Associated Lab Samples:	92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010, 92201696011, 92201696012		

METHOD BLANK:	1201789	Matrix:	Solid
Associated Lab Samples:	92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010, 92201696011, 92201696012		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.5	05/20/14 17:13	N2
Aliphatic (C09-C12)	mg/kg	ND	2.5	05/20/14 17:13	N2
Aromatic (C09-C10)	mg/kg	ND	2.5	05/20/14 17:13	N2
4-Bromofluorobenzene (FID) (S)	%	101	70-130	05/20/14 17:13	
4-Bromofluorobenzene (PID) (S)	%	101	70-130	05/20/14 17:13	

LABORATORY CONTROL SAMPLE & LCSD: 1201790

1201791

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Aliphatic (C05-C08)	mg/kg	15	15.0	15.6	100	104	70-130	4	25	N2
Aliphatic (C09-C12)	mg/kg	15	13.9	17.3	93	115	30-130	22	25	N2
Aromatic (C09-C10)	mg/kg	5	4.6	5.0	92	99	70-130	7	25	N2
4-Bromofluorobenzene (FID) (S)	%				103	109	70-130			
4-Bromofluorobenzene (PID) (S)	%				102	108	70-130			

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch:	GCV/8112	Analysis Method:	MADEP VPH
QC Batch Method:	MADEP VPH	Analysis Description:	VPH NC Soil
Associated Lab Samples:	92201696001, 92201696002, 92201696013, 92201696014, 92201696015, 92201696017, 92201696018, 92201696019, 92201696020, 92201696021, 92201696022, 92201696023, 92201696024, 92201696025		

METHOD BLANK: 1204081 Matrix: Solid  
Associated Lab Samples: 92201696001, 92201696002, 92201696013, 92201696014, 92201696015, 92201696017, 92201696018, 92201696019, 92201696020, 92201696021, 92201696022, 92201696023, 92201696024, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C05-C08)	mg/kg	ND	2.5	05/21/14 18:30	N2
Aliphatic (C09-C12)	mg/kg	ND	2.5	05/21/14 18:30	N2
Aromatic (C09-C10)	mg/kg	ND	2.5	05/21/14 18:30	N2
4-Bromofluorobenzene (FID) (S)	%	106	70-130	05/21/14 18:30	
4-Bromofluorobenzene (PID) (S)	%	106	70-130	05/21/14 18:30	

Parameter	Units	1204082		1204083		% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec				
Aliphatic (C05-C08)	mg/kg	15	15.3	13.4	102	89	70-130	13	25 N2
Aliphatic (C09-C12)	mg/kg	15	14.7	15.2	98	101	30-130	3	25 N2
Aromatic (C09-C10)	mg/kg	5	4.7	4.4	94	88	70-130	6	25 N2
4-Bromofluorobenzene (FID) (S)	%				104	106	70-130		
4-Bromofluorobenzene (PID) (S)	%				102	104	70-130		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch:	MPRP/16021	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	92201696001, 92201696002, 92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010, 92201696011, 92201696012, 92201696013, 92201696014, 92201696015, 92201696016, 92201696017, 92201696018, 92201696019, 92201696020		

METHOD BLANK:	1204851	Matrix:	Solid
Associated Lab Samples:	92201696001, 92201696002, 92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010, 92201696011, 92201696012, 92201696013, 92201696014, 92201696015, 92201696016, 92201696017, 92201696018, 92201696019, 92201696020		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/kg	ND	0.50	05/23/14 19:38	
Lead	mg/kg	ND	0.50	05/23/14 19:38	

LABORATORY CONTROL SAMPLE:	1204852					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	mg/kg	50	48.8	98	80-120	
Lead	mg/kg	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	1204853			1204854							
Parameter	Units	92201696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chromium	mg/kg	1.0	37.9	35.1	37.7	35.4	97	98	75-125	6	
Lead	mg/kg	1.2	37.9	35.1	38.0	35.7	97	98	75-125	6	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: MPRP/16030 Analysis Method: EPA 6010  
 QC Batch Method: EPA 3050 Analysis Description: 6010 MET  
 Associated Lab Samples: 92201696021, 92201696022, 92201696023, 92201696024, 92201696025

METHOD BLANK: 1205890 Matrix: Solid  
 Associated Lab Samples: 92201696021, 92201696022, 92201696023, 92201696024, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/kg	ND	0.50	05/23/14 21:23	
Lead	mg/kg	ND	0.50	05/23/14 21:23	

LABORATORY CONTROL SAMPLE: 1205891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	mg/kg	50	50.3	101	80-120	
Lead	mg/kg	50	50.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1205892 1205893

Parameter	Units	92201696021		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Chromium	mg/kg	5.7	38.3	31.1	44.1	38.3	100	105	75-125	14		
Lead	mg/kg	23.1	38.3	31.1	68.7	120	119	312	75-125	54	M1,R1	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: MSV/26859 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics  
 Associated Lab Samples: 92201696001, 92201696002, 92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010

METHOD BLANK: 1201940 Matrix: Solid  
 Associated Lab Samples: 92201696001, 92201696002, 92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,1,1-Trichloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,1,2-Trichloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,1-Dichloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,1-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:20	
1,1-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:20	
1,2,3-Trichlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,2,3-Trichloropropane	ug/kg	ND	4.0	05/19/14 17:20	
1,2,4-Trichlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,2,4-Trimethylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.0	05/19/14 17:20	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.0	05/19/14 17:20	
1,2-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,2-Dichloroethane	ug/kg	ND	4.0	05/19/14 17:20	
1,2-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:20	
1,3,5-Trimethylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,3-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
1,3-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:20	
1,4-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
2,2-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:20	
2-Butanone (MEK)	ug/kg	ND	80.3	05/19/14 17:20	
2-Chlorotoluene	ug/kg	ND	4.0	05/19/14 17:20	
2-Hexanone	ug/kg	ND	40.1	05/19/14 17:20	
4-Chlorotoluene	ug/kg	ND	4.0	05/19/14 17:20	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	40.1	05/19/14 17:20	
Acetone	ug/kg	ND	80.3	05/19/14 17:20	
Benzene	ug/kg	ND	4.0	05/19/14 17:20	
Bromobenzene	ug/kg	ND	4.0	05/19/14 17:20	
Bromochloromethane	ug/kg	ND	4.0	05/19/14 17:20	
Bromodichloromethane	ug/kg	ND	4.0	05/19/14 17:20	
Bromoform	ug/kg	ND	4.0	05/19/14 17:20	
Bromomethane	ug/kg	ND	8.0	05/19/14 17:20	
Carbon tetrachloride	ug/kg	ND	4.0	05/19/14 17:20	
Chlorobenzene	ug/kg	ND	4.0	05/19/14 17:20	
Chloroethane	ug/kg	ND	8.0	05/19/14 17:20	
Chloroform	ug/kg	ND	4.0	05/19/14 17:20	
Chloromethane	ug/kg	ND	8.0	05/19/14 17:20	
cis-1,2-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:20	
cis-1,3-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

METHOD BLANK: 1201940

Matrix: Solid

Associated Lab Samples: 92201696001, 92201696002, 92201696003, 92201696004, 92201696005, 92201696006, 92201696007, 92201696008, 92201696009, 92201696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	4.0	05/19/14 17:20	
Dibromomethane	ug/kg	ND	4.0	05/19/14 17:20	
Dichlorodifluoromethane	ug/kg	ND	8.0	05/19/14 17:20	
Diisopropyl ether	ug/kg	ND	4.0	05/19/14 17:20	
Ethylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
Hexachloro-1,3-butadiene	ug/kg	ND	4.0	05/19/14 17:20	
Isopropylbenzene (Cumene)	ug/kg	ND	4.0	05/19/14 17:20	
m&p-Xylene	ug/kg	ND	8.0	05/19/14 17:20	
Methyl-tert-butyl ether	ug/kg	ND	4.0	05/19/14 17:20	
Methylene Chloride	ug/kg	ND	16.1	05/19/14 17:20	
n-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
n-Propylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
Naphthalene	ug/kg	ND	4.0	05/19/14 17:20	
o-Xylene	ug/kg	ND	4.0	05/19/14 17:20	
p-Isopropyltoluene	ug/kg	ND	4.0	05/19/14 17:20	
sec-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
Styrene	ug/kg	ND	4.0	05/19/14 17:20	
tert-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:20	
Tetrachloroethene	ug/kg	ND	4.0	05/19/14 17:20	
Toluene	ug/kg	ND	4.0	05/19/14 17:20	
trans-1,2-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:20	
trans-1,3-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:20	
Trichloroethene	ug/kg	ND	4.0	05/19/14 17:20	
Trichlorofluoromethane	ug/kg	ND	4.0	05/19/14 17:20	
Vinyl acetate	ug/kg	ND	40.1	05/19/14 17:20	
Vinyl chloride	ug/kg	ND	8.0	05/19/14 17:20	
Xylene (Total)	ug/kg	ND	8.0	05/19/14 17:20	
1,2-Dichloroethane-d4 (S)	%	105	70-132	05/19/14 17:20	
4-Bromofluorobenzene (S)	%	97	70-130	05/19/14 17:20	
Toluene-d8 (S)	%	105	70-130	05/19/14 17:20	

LABORATORY CONTROL SAMPLE: 1201941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.7	51.7	104	70-131	
1,1,1-Trichloroethane	ug/kg	49.7	51.1	103	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	49.7	41.3	83	70-130	
1,1,2-Trichloroethane	ug/kg	49.7	49.6	100	70-132	
1,1-Dichloroethane	ug/kg	49.7	48.9	98	70-143	
1,1-Dichloroethene	ug/kg	49.7	52.1	105	70-137	
1,1-Dichloropropene	ug/kg	49.7	51.9	104	70-135	
1,2,3-Trichlorobenzene	ug/kg	49.7	45.5	91	69-153	
1,2,3-Trichloropropane	ug/kg	49.7	51.4	103	70-130	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	49.7	44.7	90	55-171	
1,2,4-Trimethylbenzene	ug/kg	49.7	53.0	107	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	49.7	51.8	104	68-141	
1,2-Dibromoethane (EDB)	ug/kg	49.7	47.8	96	70-130	
1,2-Dichlorobenzene	ug/kg	49.7	49.1	99	70-140	
1,2-Dichloroethane	ug/kg	49.7	52.8	106	70-137	
1,2-Dichloropropane	ug/kg	49.7	48.3	97	70-133	
1,3,5-Trimethylbenzene	ug/kg	49.7	52.2	105	70-143	
1,3-Dichlorobenzene	ug/kg	49.7	47.9	96	70-144	
1,3-Dichloropropane	ug/kg	49.7	48.2	97	70-132	
1,4-Dichlorobenzene	ug/kg	49.7	48.9	98	70-142	
2,2-Dichloropropane	ug/kg	49.7	51.6	104	68-152	
2-Butanone (MEK)	ug/kg	99.4	92.7J	93	70-149	
2-Chlorotoluene	ug/kg	49.7	48.5	98	70-141	
2-Hexanone	ug/kg	99.4	82.9	83	70-149	
4-Chlorotoluene	ug/kg	49.7	49.7	100	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	99.4	81.3	82	70-153	
Acetone	ug/kg	99.4	109	110	70-157	
Benzene	ug/kg	49.7	49.8	100	70-130	
Bromobenzene	ug/kg	49.7	49.3	99	70-141	
Bromochloromethane	ug/kg	49.7	53.2	107	70-149	
Bromodichloromethane	ug/kg	49.7	55.2	111	70-130	
Bromoform	ug/kg	49.7	55.4	111	70-131	
Bromomethane	ug/kg	49.7	50.7	102	64-136	
Carbon tetrachloride	ug/kg	49.7	52.6	106	70-154	
Chlorobenzene	ug/kg	49.7	46.7	94	70-135	
Chloroethane	ug/kg	49.7	49.6	100	68-151	
Chloroform	ug/kg	49.7	57.7	116	70-130	
Chloromethane	ug/kg	49.7	46.9	94	70-132	
cis-1,2-Dichloroethene	ug/kg	49.7	52.8	106	70-140	
cis-1,3-Dichloropropene	ug/kg	49.7	50.1	101	70-137	
Dibromochloromethane	ug/kg	49.7	53.9	109	70-130	
Dibromomethane	ug/kg	49.7	51.4	103	70-136	
Dichlorodifluoromethane	ug/kg	49.7	54.9	110	36-148	
Diisopropyl ether	ug/kg	49.7	41.4	83	70-139	
Ethylbenzene	ug/kg	49.7	50.5	102	70-137	
Hexachloro-1,3-butadiene	ug/kg	49.7	46.0	92	70-145	
Isopropylbenzene (Cumene)	ug/kg	49.7	52.2	105	70-141	
m&p-Xylene	ug/kg	99.4	99.8	100	70-140	
Methyl-tert-butyl ether	ug/kg	49.7	41.5	84	45-150	
Methylene Chloride	ug/kg	49.7	51.5	104	70-133	
n-Butylbenzene	ug/kg	49.7	51.9	104	65-155	
n-Propylbenzene	ug/kg	49.7	50.5	102	70-148	
Naphthalene	ug/kg	49.7	49.1	99	70-148	
o-Xylene	ug/kg	49.7	49.9	100	70-141	
p-Isopropyltoluene	ug/kg	49.7	51.5	104	70-148	
sec-Butylbenzene	ug/kg	49.7	49.6	100	70-145	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	49.7	51.0	103	70-138	
tert-Butylbenzene	ug/kg	49.7	51.5	104	70-143	
Tetrachloroethene	ug/kg	49.7	50.2	101	70-140	
Toluene	ug/kg	49.7	50.7	102	70-130	
trans-1,2-Dichloroethene	ug/kg	49.7	51.9	104	70-136	
trans-1,3-Dichloropropene	ug/kg	49.7	49.4	99	70-138	
Trichloroethene	ug/kg	49.7	57.1	115	70-132	
Trichlorofluoromethane	ug/kg	49.7	54.8	110	69-134	
Vinyl acetate	ug/kg	99.4	28.2J	28	24-161	F3
Vinyl chloride	ug/kg	49.7	57.5	116	55-140	
Xylene (Total)	ug/kg	149	150	100	70-141	
1,2-Dichloroethane-d4 (S)	%			110	70-132	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1202383

Parameter	Units	92201696003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	42.7	39.0	91	49-180	
Benzene	ug/kg	ND	42.7	35.6	83	50-166	
Chlorobenzene	ug/kg	ND	42.7	34.8	81	43-169	
Toluene	ug/kg	ND	42.7	35.6	80	52-163	
Trichloroethene	ug/kg	ND	42.7	36.9	86	49-167	
1,2-Dichloroethane-d4 (S)	%				110	70-132	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1202670

Parameter	Units	92201696002 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

SAMPLE DUPLICATE: 1202670

Parameter	Units	92201696002 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/kg	ND	ND		
1,2-Dichloropropane	ug/kg	ND	ND		
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	ND	ND		
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

SAMPLE DUPLICATE: 1202670

Parameter	Units	92201696002 Result	Dup Result	RPD	Qualifiers
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	111	116	10	
4-Bromofluorobenzene (S)	%	98	98	5	
Toluene-d8 (S)	%	99	105	10	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: MSV/26860 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics  
 Associated Lab Samples: 92201696011, 92201696012, 92201696013, 92201696014, 92201696015, 92201696016, 92201696017,  
 92201696018, 92201696019, 92201696020, 92201696021

METHOD BLANK: 1201942 Matrix: Solid  
 Associated Lab Samples: 92201696011, 92201696012, 92201696013, 92201696014, 92201696015, 92201696016, 92201696017,  
 92201696018, 92201696019, 92201696020, 92201696021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,1,1-Trichloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,1,2-Trichloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,1-Dichloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,1-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:01	
1,1-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:01	
1,2,3-Trichlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,2,3-Trichloropropane	ug/kg	ND	4.0	05/19/14 17:01	
1,2,4-Trichlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,2,4-Trimethylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.0	05/19/14 17:01	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.0	05/19/14 17:01	
1,2-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,2-Dichloroethane	ug/kg	ND	4.0	05/19/14 17:01	
1,2-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:01	
1,3,5-Trimethylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,3-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
1,3-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:01	
1,4-Dichlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
2,2-Dichloropropane	ug/kg	ND	4.0	05/19/14 17:01	
2-Butanone (MEK)	ug/kg	ND	80.4	05/19/14 17:01	
2-Chlorotoluene	ug/kg	ND	4.0	05/19/14 17:01	
2-Hexanone	ug/kg	ND	40.2	05/19/14 17:01	
4-Chlorotoluene	ug/kg	ND	4.0	05/19/14 17:01	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	40.2	05/19/14 17:01	
Acetone	ug/kg	ND	80.4	05/19/14 17:01	
Benzene	ug/kg	ND	4.0	05/19/14 17:01	
Bromobenzene	ug/kg	ND	4.0	05/19/14 17:01	
Bromochloromethane	ug/kg	ND	4.0	05/19/14 17:01	
Bromodichloromethane	ug/kg	ND	4.0	05/19/14 17:01	
Bromoform	ug/kg	ND	4.0	05/19/14 17:01	
Bromomethane	ug/kg	ND	8.0	05/19/14 17:01	
Carbon tetrachloride	ug/kg	ND	4.0	05/19/14 17:01	
Chlorobenzene	ug/kg	ND	4.0	05/19/14 17:01	
Chloroethane	ug/kg	ND	8.0	05/19/14 17:01	
Chloroform	ug/kg	ND	4.0	05/19/14 17:01	
Chloromethane	ug/kg	ND	8.0	05/19/14 17:01	
cis-1,2-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:01	
cis-1,3-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:01	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

METHOD BLANK: 1201942

Matrix: Solid

Associated Lab Samples: 92201696011, 92201696012, 92201696013, 92201696014, 92201696015, 92201696016, 92201696017, 92201696018, 92201696019, 92201696020, 92201696021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	4.0	05/19/14 17:01	
Dibromomethane	ug/kg	ND	4.0	05/19/14 17:01	
Dichlorodifluoromethane	ug/kg	ND	8.0	05/19/14 17:01	
Diisopropyl ether	ug/kg	ND	4.0	05/19/14 17:01	
Ethylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
Hexachloro-1,3-butadiene	ug/kg	ND	4.0	05/19/14 17:01	
Isopropylbenzene (Cumene)	ug/kg	ND	4.0	05/19/14 17:01	
m&p-Xylene	ug/kg	ND	8.0	05/19/14 17:01	
Methyl-tert-butyl ether	ug/kg	ND	4.0	05/19/14 17:01	
Methylene Chloride	ug/kg	ND	16.1	05/19/14 17:01	
n-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
n-Propylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
Naphthalene	ug/kg	ND	4.0	05/19/14 17:01	
o-Xylene	ug/kg	ND	4.0	05/19/14 17:01	
p-Isopropyltoluene	ug/kg	ND	4.0	05/19/14 17:01	
sec-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
Styrene	ug/kg	ND	4.0	05/19/14 17:01	
tert-Butylbenzene	ug/kg	ND	4.0	05/19/14 17:01	
Tetrachloroethene	ug/kg	ND	4.0	05/19/14 17:01	
Toluene	ug/kg	ND	4.0	05/19/14 17:01	
trans-1,2-Dichloroethene	ug/kg	ND	4.0	05/19/14 17:01	
trans-1,3-Dichloropropene	ug/kg	ND	4.0	05/19/14 17:01	
Trichloroethene	ug/kg	ND	4.0	05/19/14 17:01	
Trichlorofluoromethane	ug/kg	ND	4.0	05/19/14 17:01	
Vinyl acetate	ug/kg	ND	40.2	05/19/14 17:01	
Vinyl chloride	ug/kg	ND	8.0	05/19/14 17:01	
Xylene (Total)	ug/kg	ND	8.0	05/19/14 17:01	
1,2-Dichloroethane-d4 (S)	%	107	70-132	05/19/14 17:01	
4-Bromofluorobenzene (S)	%	97	70-130	05/19/14 17:01	
Toluene-d8 (S)	%	103	70-130	05/19/14 17:01	

LABORATORY CONTROL SAMPLE: 1201943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	47.8	49.2	103	70-131	
1,1,1-Trichloroethane	ug/kg	47.8	47.8	100	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	47.8	36.1	75	70-130	
1,1,2-Trichloroethane	ug/kg	47.8	45.5	95	70-132	
1,1-Dichloroethane	ug/kg	47.8	44.3	93	70-143	
1,1-Dichloroethene	ug/kg	47.8	47.5	99	70-137	
1,1-Dichloropropene	ug/kg	47.8	49.0	103	70-135	
1,2,3-Trichlorobenzene	ug/kg	47.8	43.4	91	69-153	
1,2,3-Trichloropropane	ug/kg	47.8	52.4	110	70-130	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	47.8	42.8	90	55-171	
1,2,4-Trimethylbenzene	ug/kg	47.8	52.5	110	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	47.8	45.2	95	68-141	
1,2-Dibromoethane (EDB)	ug/kg	47.8	47.8	100	70-130	
1,2-Dichlorobenzene	ug/kg	47.8	48.3	101	70-140	
1,2-Dichloroethane	ug/kg	47.8	48.6	102	70-137	
1,2-Dichloropropane	ug/kg	47.8	45.6	95	70-133	
1,3,5-Trimethylbenzene	ug/kg	47.8	52.2	109	70-143	
1,3-Dichlorobenzene	ug/kg	47.8	46.3	97	70-144	
1,3-Dichloropropane	ug/kg	47.8	46.3	97	70-132	
1,4-Dichlorobenzene	ug/kg	47.8	47.1	99	70-142	
2,2-Dichloropropane	ug/kg	47.8	47.8	100	68-152	
2-Butanone (MEK)	ug/kg	95.6	88.1J	92	70-149	
2-Chlorotoluene	ug/kg	47.8	47.6	100	70-141	
2-Hexanone	ug/kg	95.6	80.1	84	70-149	
4-Chlorotoluene	ug/kg	47.8	48.3	101	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	95.6	74.8	78	70-153	
Acetone	ug/kg	95.6	99.6	104	70-157	
Benzene	ug/kg	47.8	45.3	95	70-130	
Bromobenzene	ug/kg	47.8	48.2	101	70-141	
Bromochloromethane	ug/kg	47.8	49.5	104	70-149	
Bromodichloromethane	ug/kg	47.8	50.1	105	70-130	
Bromoform	ug/kg	47.8	54.7	114	70-131	
Bromomethane	ug/kg	47.8	46.8	98	64-136	
Carbon tetrachloride	ug/kg	47.8	48.6	102	70-154	
Chlorobenzene	ug/kg	47.8	45.4	95	70-135	
Chloroethane	ug/kg	47.8	45.2	95	68-151	
Chloroform	ug/kg	47.8	52.2	109	70-130	
Chloromethane	ug/kg	47.8	43.2	90	70-132	
cis-1,2-Dichloroethene	ug/kg	47.8	50.1	105	70-140	
cis-1,3-Dichloropropene	ug/kg	47.8	46.5	97	70-137	
Dibromochloromethane	ug/kg	47.8	50.3	105	70-130	
Dibromomethane	ug/kg	47.8	46.8	98	70-136	
Dichlorodifluoromethane	ug/kg	47.8	50.5	106	36-148	
Diisopropyl ether	ug/kg	47.8	39.0	82	70-139	
Ethylbenzene	ug/kg	47.8	50.1	105	70-137	
Hexachloro-1,3-butadiene	ug/kg	47.8	47.5	99	70-145	
Isopropylbenzene (Cumene)	ug/kg	47.8	50.9	106	70-141	
m&p-Xylene	ug/kg	95.6	97.4	102	70-140	
Methyl-tert-butyl ether	ug/kg	47.8	39.8	83	45-150	
Methylene Chloride	ug/kg	47.8	45.5	95	70-133	
n-Butylbenzene	ug/kg	47.8	51.1	107	65-155	
n-Propylbenzene	ug/kg	47.8	50.1	105	70-148	
Naphthalene	ug/kg	47.8	45.3	95	70-148	
o-Xylene	ug/kg	47.8	48.6	102	70-141	
p-Isopropyltoluene	ug/kg	47.8	49.8	104	70-148	
sec-Butylbenzene	ug/kg	47.8	49.3	103	70-145	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	47.8	48.5	101	70-138	
tert-Butylbenzene	ug/kg	47.8	50.3	105	70-143	
Tetrachloroethene	ug/kg	47.8	49.7	104	70-140	
Toluene	ug/kg	47.8	47.8	100	70-130	
trans-1,2-Dichloroethene	ug/kg	47.8	47.4	99	70-136	
trans-1,3-Dichloropropene	ug/kg	47.8	46.1	97	70-138	
Trichloroethene	ug/kg	47.8	55.6	116	70-132	
Trichlorofluoromethane	ug/kg	47.8	50.9	107	69-134	
Vinyl acetate	ug/kg	95.6	19.9J	21	24-161	F3,L0
Vinyl chloride	ug/kg	47.8	51.1	107	55-140	
Xylene (Total)	ug/kg	143	146	102	70-141	
1,2-Dichloroethane-d4 (S)	%			107	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1202388

Parameter	Units	92201696012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	42	33.5	80	49-180	
Benzene	ug/kg	ND	42	29.5	70	50-166	
Chlorobenzene	ug/kg	ND	42	27.6	66	43-169	
Toluene	ug/kg	ND	42	29.6	70	52-163	
Trichloroethene	ug/kg	ND	42	30.9	74	49-167	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1202387

Parameter	Units	92201696011 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

SAMPLE DUPLICATE: 1202387

Parameter	Units	92201696011 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/kg	ND	ND		
1,2-Dichloropropane	ug/kg	ND	ND		
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	ND	ND		
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

SAMPLE DUPLICATE: 1202387

Parameter	Units	92201696011 Result	Dup Result	RPD	Qualifiers
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	110	113	20	
4-Bromofluorobenzene (S)	%	94	99	18	
Toluene-d8 (S)	%	98	103	18	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: MSV/26866 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics  
Associated Lab Samples: 92201696023, 92201696024, 92201696025

METHOD BLANK: 1202081 Matrix: Solid

Associated Lab Samples: 92201696023, 92201696024, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,1,1-Trichloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,1,2-Trichloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,1-Dichloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,1-Dichloroethene	ug/kg	ND	5.1	05/19/14 14:33	
1,1-Dichloropropene	ug/kg	ND	5.1	05/19/14 14:33	
1,2,3-Trichlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,2,3-Trichloropropane	ug/kg	ND	5.1	05/19/14 14:33	
1,2,4-Trichlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,2,4-Trimethylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.1	05/19/14 14:33	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.1	05/19/14 14:33	
1,2-Dichlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,2-Dichloroethane	ug/kg	ND	5.1	05/19/14 14:33	
1,2-Dichloropropane	ug/kg	ND	5.1	05/19/14 14:33	
1,3,5-Trimethylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,3-Dichlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
1,3-Dichloropropane	ug/kg	ND	5.1	05/19/14 14:33	
1,4-Dichlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
2,2-Dichloropropane	ug/kg	ND	5.1	05/19/14 14:33	
2-Butanone (MEK)	ug/kg	ND	102	05/19/14 14:33	
2-Chlorotoluene	ug/kg	ND	5.1	05/19/14 14:33	
2-Hexanone	ug/kg	ND	51.0	05/19/14 14:33	
4-Chlorotoluene	ug/kg	ND	5.1	05/19/14 14:33	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	51.0	05/19/14 14:33	
Acetone	ug/kg	ND	102	05/19/14 14:33	
Benzene	ug/kg	ND	5.1	05/19/14 14:33	
Bromobenzene	ug/kg	ND	5.1	05/19/14 14:33	
Bromochloromethane	ug/kg	ND	5.1	05/19/14 14:33	
Bromodichloromethane	ug/kg	ND	5.1	05/19/14 14:33	
Bromoform	ug/kg	ND	5.1	05/19/14 14:33	
Bromomethane	ug/kg	ND	10.2	05/19/14 14:33	
Carbon tetrachloride	ug/kg	ND	5.1	05/19/14 14:33	
Chlorobenzene	ug/kg	ND	5.1	05/19/14 14:33	
Chloroethane	ug/kg	ND	10.2	05/19/14 14:33	
Chloroform	ug/kg	ND	5.1	05/19/14 14:33	
Chloromethane	ug/kg	ND	10.2	05/19/14 14:33	
cis-1,2-Dichloroethene	ug/kg	ND	5.1	05/19/14 14:33	
cis-1,3-Dichloropropene	ug/kg	ND	5.1	05/19/14 14:33	
Dibromochloromethane	ug/kg	ND	5.1	05/19/14 14:33	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

METHOD BLANK: 1202081

Matrix: Solid

Associated Lab Samples: 92201696023, 92201696024, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	5.1	05/19/14 14:33	
Dichlorodifluoromethane	ug/kg	ND	10.2	05/19/14 14:33	
Diisopropyl ether	ug/kg	ND	5.1	05/19/14 14:33	
Ethylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
Hexachloro-1,3-butadiene	ug/kg	ND	5.1	05/19/14 14:33	
Isopropylbenzene (Cumene)	ug/kg	ND	5.1	05/19/14 14:33	
m&p-Xylene	ug/kg	ND	10.2	05/19/14 14:33	
Methyl-tert-butyl ether	ug/kg	ND	5.1	05/19/14 14:33	
Methylene Chloride	ug/kg	ND	20.4	05/19/14 14:33	
n-Butylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
n-Propylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
Naphthalene	ug/kg	ND	5.1	05/19/14 14:33	
o-Xylene	ug/kg	ND	5.1	05/19/14 14:33	
p-Isopropyltoluene	ug/kg	ND	5.1	05/19/14 14:33	
sec-Butylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
Styrene	ug/kg	ND	5.1	05/19/14 14:33	
tert-Butylbenzene	ug/kg	ND	5.1	05/19/14 14:33	
Tetrachloroethene	ug/kg	ND	5.1	05/19/14 14:33	
Toluene	ug/kg	ND	5.1	05/19/14 14:33	
trans-1,2-Dichloroethene	ug/kg	ND	5.1	05/19/14 14:33	
trans-1,3-Dichloropropene	ug/kg	ND	5.1	05/19/14 14:33	
Trichloroethene	ug/kg	ND	5.1	05/19/14 14:33	
Trichlorofluoromethane	ug/kg	ND	5.1	05/19/14 14:33	
Vinyl acetate	ug/kg	ND	51.0	05/19/14 14:33	
Vinyl chloride	ug/kg	ND	10.2	05/19/14 14:33	
Xylene (Total)	ug/kg	ND	10.2	05/19/14 14:33	
1,2-Dichloroethane-d4 (S)	%	91	70-132	05/19/14 14:33	
4-Bromofluorobenzene (S)	%	108	70-130	05/19/14 14:33	
Toluene-d8 (S)	%	103	70-130	05/19/14 14:33	

LABORATORY CONTROL SAMPLE: 1202082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	43.4	45.6	105	70-131	
1,1,1-Trichloroethane	ug/kg	43.4	44.3	102	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	43.4	44.2	102	70-130	
1,1,2-Trichloroethane	ug/kg	43.4	52.8	122	70-132	
1,1-Dichloroethane	ug/kg	43.4	43.6	101	70-143	
1,1-Dichloroethene	ug/kg	43.4	44.3	102	70-137	
1,1-Dichloropropene	ug/kg	43.4	42.7	98	70-135	
1,2,3-Trichlorobenzene	ug/kg	43.4	57.8	133	69-153	
1,2,3-Trichloropropane	ug/kg	43.4	50.3	116	70-130	
1,2,4-Trichlorobenzene	ug/kg	43.4	55.5	128	55-171	
1,2,4-Trimethylbenzene	ug/kg	43.4	47.5	109	70-149	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1202082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/kg	43.4	43.1	99	68-141	
1,2-Dibromoethane (EDB)	ug/kg	43.4	46.3	107	70-130	
1,2-Dichlorobenzene	ug/kg	43.4	51.1	118	70-140	
1,2-Dichloroethane	ug/kg	43.4	47.1	108	70-137	
1,2-Dichloropropane	ug/kg	43.4	49.5	114	70-133	
1,3,5-Trimethylbenzene	ug/kg	43.4	46.6	107	70-143	
1,3-Dichlorobenzene	ug/kg	43.4	49.4	114	70-144	
1,3-Dichloropropane	ug/kg	43.4	42.8	99	70-132	
1,4-Dichlorobenzene	ug/kg	43.4	51.7	119	70-142	
2,2-Dichloropropane	ug/kg	43.4	42.8	99	68-152	
2-Butanone (MEK)	ug/kg	86.8	92.8	107	70-149	
2-Chlorotoluene	ug/kg	43.4	43.9	101	70-141	
2-Hexanone	ug/kg	86.8	83.6	96	70-149	
4-Chlorotoluene	ug/kg	43.4	43.6	100	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	86.8	83.6	96	70-153	
Acetone	ug/kg	86.8	79.6J	92	70-157	
Benzene	ug/kg	43.4	45.5	105	70-130	
Bromobenzene	ug/kg	43.4	44.4	102	70-141	
Bromochloromethane	ug/kg	43.4	53.5	123	70-149	
Bromodichloromethane	ug/kg	43.4	49.3	114	70-130	
Bromoform	ug/kg	43.4	51.6	119	70-131	
Bromomethane	ug/kg	43.4	48.3	111	64-136	
Carbon tetrachloride	ug/kg	43.4	50.2	116	70-154	
Chlorobenzene	ug/kg	43.4	45.6	105	70-135	
Chloroethane	ug/kg	43.4	39.7	92	68-151	
Chloroform	ug/kg	43.4	50.0	115	70-130	
Chloromethane	ug/kg	43.4	34.1	78	70-132	
cis-1,2-Dichloroethene	ug/kg	43.4	45.9	106	70-140	
cis-1,3-Dichloropropene	ug/kg	43.4	48.9	113	70-137	
Dibromochloromethane	ug/kg	43.4	48.2	111	70-130	
Dibromomethane	ug/kg	43.4	58.1	134	70-136	
Dichlorodifluoromethane	ug/kg	43.4	39.2	90	36-148	
Diisopropyl ether	ug/kg	43.4	32.1	74	70-139	
Ethylbenzene	ug/kg	43.4	44.8	103	70-137	
Hexachloro-1,3-butadiene	ug/kg	43.4	51.4	118	70-145	
Isopropylbenzene (Cumene)	ug/kg	43.4	46.7	107	70-141	
m&p-Xylene	ug/kg	86.8	87.9	101	70-140	
Methyl-tert-butyl ether	ug/kg	43.4	37.7	87	45-150	
Methylene Chloride	ug/kg	43.4	40.2	93	70-133	
n-Butylbenzene	ug/kg	43.4	45.8	106	65-155	
n-Propylbenzene	ug/kg	43.4	44.8	103	70-148	
Naphthalene	ug/kg	43.4	54.8	126	70-148	
o-Xylene	ug/kg	43.4	43.5	100	70-141	
p-Isopropyltoluene	ug/kg	43.4	47.0	108	70-148	
sec-Butylbenzene	ug/kg	43.4	45.2	104	70-145	
Styrene	ug/kg	43.4	49.5	114	70-138	
tert-Butylbenzene	ug/kg	43.4	46.8	108	70-143	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1202082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	43.4	52.6	121	70-140	
Toluene	ug/kg	43.4	47.2	109	70-130	
trans-1,2-Dichloroethene	ug/kg	43.4	45.5	105	70-136	
trans-1,3-Dichloropropene	ug/kg	43.4	49.4	114	70-138	
Trichloroethene	ug/kg	43.4	57.6	133	70-132	L0
Trichlorofluoromethane	ug/kg	43.4	40.1	92	69-134	
Vinyl acetate	ug/kg	86.8	60.1	69	24-161	F3
Vinyl chloride	ug/kg	43.4	45.7	105	55-140	
Xylene (Total)	ug/kg	130	131	101	70-141	
1,2-Dichloroethane-d4 (S)	%			94	70-132	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1202083 1202084

Parameter	Units	92201830001		MS	MSD	MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
1,1,1,2-Tetrachloroethane	ug/kg	ND	46.3	49.6	51.2	54.3	111	110	70-130	6		
1,1,1-Trichloroethane	ug/kg	ND	46.3	49.6	45.4	53.4	98	108	70-130	16		
1,1,2,2-Tetrachloroethane	ug/kg	ND	46.3	49.6	51.8	58.0	112	117	70-130	11		
1,1,2-Trichloroethane	ug/kg	ND	46.3	49.6	56.3	60.8	122	123	70-130	8		
1,1-Dichloroethane	ug/kg	ND	46.3	49.6	48.1	50.7	104	102	70-130	5		
1,1-Dichloroethene	ug/kg	ND	46.3	49.6	50.6	56.6	109	114	49-180	11		
1,1-Dichloropropene	ug/kg	ND	46.3	49.6	46.7	49.9	101	101	70-130	7		
1,2,3-Trichlorobenzene	ug/kg	ND	46.3	49.6	49.6	52.8	105	104	70-130	6		
1,2,3-Trichloropropane	ug/kg	ND	46.3	49.6	52.1	61.9	113	125	70-130	17		
1,2,4-Trichlorobenzene	ug/kg	ND	46.3	49.6	49.4	52.8	107	106	70-130	7		
1,2,4-Trimethylbenzene	ug/kg	ND	46.3	49.6	53.4	53.6	115	108	70-130	0		
1,2-Dibromo-3-chloropropane	ug/kg	ND	46.3	49.6	42.8	51.0	93	103	70-130	17		
1,2-Dibromoethane (EDB)	ug/kg	ND	46.3	49.6	50.2	54.6	108	110	70-130	8		
1,2-Dichlorobenzene	ug/kg	ND	46.3	49.6	54.2	56.7	117	114	70-130	5		
1,2-Dichloroethane	ug/kg	ND	46.3	49.6	51.0	54.5	110	110	70-130	7		
1,2-Dichloropropane	ug/kg	ND	46.3	49.6	54.6	61.1	118	123	70-130	11		
1,3,5-Trimethylbenzene	ug/kg	ND	46.3	49.6	52.4	53.0	113	107	70-130	1		
1,3-Dichlorobenzene	ug/kg	ND	46.3	49.6	53.8	54.8	116	111	70-130	2		
1,3-Dichloropropane	ug/kg	ND	46.3	49.6	46.8	52.7	101	106	70-130	12		
1,4-Dichlorobenzene	ug/kg	ND	46.3	49.6	55.2	57.5	119	116	70-130	4		
2,2-Dichloropropane	ug/kg	ND	46.3	49.6	44.5	49.0	96	99	70-130	10		
2-Butanone (MEK)	ug/kg	ND	92.5	99.1	87.3J	101	85	94	70-130			
2-Chlorotoluene	ug/kg	ND	46.3	49.6	49.1	50.1	106	101	70-130	2		
2-Hexanone	ug/kg	ND	92.5	99.1	89.3	107	96	108	70-130	18		
4-Chlorotoluene	ug/kg	ND	46.3	49.6	48.6	49.9	105	101	70-130	3		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	92.5	99.1	89.7	101	97	102	70-130	12		
Acetone	ug/kg	ND	92.5	99.1	93.7	101	74	76	70-130	7		
Benzene	ug/kg	ND	46.3	49.6	52.6	57.5	114	116	50-166	9		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1202083 1202084												
Parameter	Units	92201830001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Bromobenzene	ug/kg	ND	46.3	49.6	49.7	51.8	107	105	70-130	4		
Bromochloromethane	ug/kg	ND	46.3	49.6	52.9	59.7	114	120	70-130	12		
Bromodichloromethane	ug/kg	ND	46.3	49.6	53.8	60.8	116	123	70-130	12		
Bromoform	ug/kg	ND	46.3	49.6	53.7	60.6	116	122	70-130	12		
Bromomethane	ug/kg	ND	46.3	49.6	43.0	60.0	93	121	70-130	33	R1	
Carbon tetrachloride	ug/kg	ND	46.3	49.6	51.3	63.1	111	127	70-130	21		
Chlorobenzene	ug/kg	ND	46.3	49.6	51.6	55.8	111	113	43-169	8		
Chloroethane	ug/kg	ND	46.3	49.6	47.0	53.0	102	107	70-130	12		
Chloroform	ug/kg	ND	46.3	49.6	47.9	57.8	104	117	70-130	19		
Chloromethane	ug/kg	ND	46.3	49.6	34.0	45.0	73	91	70-130	28		
cis-1,2-Dichloroethene	ug/kg	ND	46.3	49.6	51.3	56.0	111	113	70-130	9		
cis-1,3-Dichloropropene	ug/kg	ND	46.3	49.6	51.9	57.6	112	116	70-130	10		
Dibromochloromethane	ug/kg	ND	46.3	49.6	52.6	57.5	114	116	70-130	9		
Dibromomethane	ug/kg	ND	46.3	49.6	61.0	68.4	132	138	70-130	11	M1	
Dichlorodifluoromethane	ug/kg	ND	46.3	49.6	47.5	47.7	103	96	70-130	1		
Diisopropyl ether	ug/kg	ND	46.3	49.6	34.9	38.0	75	77	70-130	9		
Ethylbenzene	ug/kg	ND	46.3	49.6	51.6	54.4	111	110	70-130	5		
Hexachloro-1,3-butadiene	ug/kg	ND	46.3	49.6	39.8	43.0	86	87	70-130	8		
Isopropylbenzene (Cumene)	ug/kg	ND	46.3	49.6	52.7	55.0	114	111	70-130	4		
m&p-Xylene	ug/kg	ND	92.5	99.1	101	106	109	107	70-130	5		
Methyl-tert-butyl ether	ug/kg	ND	46.3	49.6	38.6	43.1	83	87	70-130	11		
Methylene Chloride	ug/kg	ND	46.3	49.6	44.2	49.7	96	100	70-130	12		
n-Butylbenzene	ug/kg	ND	46.3	49.6	48.0	47.3	104	95	70-130	1		
n-Propylbenzene	ug/kg	ND	46.3	49.6	50.9	51.1	110	103	70-130	0		
Naphthalene	ug/kg	ND	46.3	49.6	49.9	56.7	103	110	70-130	13		
o-Xylene	ug/kg	ND	46.3	49.6	49.9	52.6	108	106	70-130	5		
p-Isopropyltoluene	ug/kg	ND	46.3	49.6	51.4	51.3	111	103	70-130	0		
sec-Butylbenzene	ug/kg	ND	46.3	49.6	49.6	49.5	107	100	70-130	0		
Styrene	ug/kg	ND	46.3	49.6	54.0	57.1	117	115	70-130	6		
tert-Butylbenzene	ug/kg	ND	46.3	49.6	52.1	52.4	113	106	70-130	0		
Tetrachloroethene	ug/kg	ND	46.3	49.6	62.2	63.7	134	129	70-130	2	M1	
Toluene	ug/kg	ND	46.3	49.6	53.6	57.4	116	116	52-163	7		
trans-1,2-Dichloroethene	ug/kg	ND	46.3	49.6	49.9	56.9	108	115	70-130	13		
trans-1,3-Dichloropropene	ug/kg	ND	46.3	49.6	50.3	57.6	109	116	70-130	14		
Trichloroethene	ug/kg	ND	46.3	49.6	62.5	67.9	135	137	49-167	8		
Trichlorofluoromethane	ug/kg	ND	46.3	49.6	46.4	50.1	100	101	70-130	8		
Vinyl acetate	ug/kg	ND	92.5	99.1	71.4	55.5	77	56	70-130	25	M1	
Vinyl chloride	ug/kg	ND	46.3	49.6	52.9	58.4	114	118	70-130	10		
1,2-Dichloroethane-d4 (S)	%						90	91	70-132			
4-Bromofluorobenzene (S)	%						101	107	70-130			
Toluene-d8 (S)	%						93	94	70-130			

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Parameter	Units	1202085		1202086		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92201832001 Result	MS Spike Conc.	MSD Spike Conc.	MSD Result							
1,1,1,2-Tetrachloroethane	ug/kg	ND	47.3	51.7	54.0	55.4	114	107	70-130	3		
1,1,1-Trichloroethane	ug/kg	ND	47.3	51.7	51.8	58.1	110	112	70-130	12		
1,1,2,2-Tetrachloroethane	ug/kg	ND	47.3	51.7	52.9	54.5	112	105	70-130	3		
1,1,2-Trichloroethane	ug/kg	ND	47.3	51.7	59.5	63.6	126	123	70-130	7		
1,1-Dichloroethane	ug/kg	ND	47.3	51.7	51.8	55.8	110	108	70-130	8		
1,1-Dichloroethene	ug/kg	ND	47.3	51.7	53.1	63.7	112	123	49-180	18		
1,1-Dichloropropene	ug/kg	ND	47.3	51.7	50.5	52.2	107	101	70-130	3		
1,2,3-Trichlorobenzene	ug/kg	ND	47.3	51.7	58.1	43.5	120	82	70-130	29		
1,2,3-Trichloropropane	ug/kg	ND	47.3	51.7	56.2	59.0	119	114	70-130	5		
1,2,4-Trichlorobenzene	ug/kg	ND	47.3	51.7	58.3	44.3	121	84	70-130	27		
1,2,4-Trimethylbenzene	ug/kg	ND	47.3	51.7	55.5	57.5	117	111	70-130	4		
1,2-Dibromo-3-chloropropane	ug/kg	ND	47.3	51.7	49.2	55.1	104	107	70-130	11		
1,2-Dibromoethane (EDB)	ug/kg	ND	47.3	51.7	53.5	56.2	113	109	70-130	5		
1,2-Dichlorobenzene	ug/kg	ND	47.3	51.7	57.8	55.5	122	107	70-130	4		
1,2-Dichloroethane	ug/kg	ND	47.3	51.7	55.2	61.4	117	119	70-130	11		
1,2-Dichloropropane	ug/kg	ND	47.3	51.7	59.6	63.3	126	122	70-130	6		
1,3,5-Trimethylbenzene	ug/kg	ND	47.3	51.7	54.5	56.8	115	110	70-130	4		
1,3-Dichlorobenzene	ug/kg	ND	47.3	51.7	57.5	55.6	122	108	70-130	3		
1,3-Dichloropropane	ug/kg	ND	47.3	51.7	50.6	54.5	107	105	70-130	7		
1,4-Dichlorobenzene	ug/kg	ND	47.3	51.7	59.3	57.4	125	111	70-130	3		
2,2-Dichloropropane	ug/kg	ND	47.3	51.7	50.6	54.3	107	105	70-130	7		
2-Butanone (MEK)	ug/kg	ND	94.5	103	96.8	114	102	110	70-130	16		
2-Chlorotoluene	ug/kg	ND	47.3	51.7	51.3	54.9	108	106	70-130	7		
2-Hexanone	ug/kg	ND	94.5	103	94.9	112	100	108	70-130	16		
4-Chlorotoluene	ug/kg	ND	47.3	51.7	51.2	53.7	108	104	70-130	5		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	94.5	103	92.7	104	98	100	70-130	11		
Acetone	ug/kg	ND	94.5	103	95.2	116	101	112	70-130	20		
Benzene	ug/kg	ND	47.3	51.7	55.7	59.5	118	115	50-166	7		
Bromobenzene	ug/kg	ND	47.3	51.7	51.6	56.8	109	110	70-130	9		
Bromochloromethane	ug/kg	ND	47.3	51.7	58.6	68.8	124	133	70-130	16	M1	
Bromodichloromethane	ug/kg	ND	47.3	51.7	59.6	62.9	126	122	70-130	5		
Bromoform	ug/kg	ND	47.3	51.7	59.4	59.5	126	115	70-130	0		
Bromomethane	ug/kg	ND	47.3	51.7	53.2	60.0	113	116	70-130	12		
Carbon tetrachloride	ug/kg	ND	47.3	51.7	61.9	64.6	131	125	70-130	4	M1	
Chlorobenzene	ug/kg	ND	47.3	51.7	54.3	55.0	115	106	43-169	1		
Chloroethane	ug/kg	ND	47.3	51.7	51.8	59.9	110	116	70-130	14		
Chloroform	ug/kg	ND	47.3	51.7	53.6	67.0	113	130	70-130	22		
Chloromethane	ug/kg	ND	47.3	51.7	42.6	49.2	90	95	70-130	14		
cis-1,2-Dichloroethene	ug/kg	ND	47.3	51.7	53.5	61.0	113	118	70-130	13		
cis-1,3-Dichloropropene	ug/kg	ND	47.3	51.7	57.1	55.1	121	107	70-130	4		
Dibromochloromethane	ug/kg	ND	47.3	51.7	57.1	59.6	121	115	70-130	4		
Dibromomethane	ug/kg	ND	47.3	51.7	66.7	70.9	141	137	70-130	6	M1	
Dichlorodifluoromethane	ug/kg	ND	47.3	51.7	47.9	55.8	101	108	70-130	15		
Diisopropyl ether	ug/kg	ND	47.3	51.7	37.9	40.3	80	78	70-130	6		
Ethylbenzene	ug/kg	ND	47.3	51.7	54.7	55.3	116	107	70-130	1		
Hexachloro-1,3-butadiene	ug/kg	ND	47.3	51.7	48.9	35.6	104	69	70-130	32	M1,R1	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Parameter	Units	1202085		1202086		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92201832001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Isopropylbenzene (Cumene)	ug/kg	ND	47.3	51.7	56.4	53.6	119	104	70-130	5		
m&p-Xylene	ug/kg	ND	94.5	103	107	108	114	104	70-130	0		
Methyl-tert-butyl ether	ug/kg	ND	47.3	51.7	40.3	46.1	85	89	70-130	14		
Methylene Chloride	ug/kg	ND	47.3	51.7	49.0	56.0	104	108	70-130	13		
n-Butylbenzene	ug/kg	ND	47.3	51.7	52.3	47.0	111	91	70-130	11		
n-Propylbenzene	ug/kg	ND	47.3	51.7	53.2	55.7	113	108	70-130	4		
Naphthalene	ug/kg	ND	47.3	51.7	56.3	50.7	115	95	70-130	11		
o-Xylene	ug/kg	ND	47.3	51.7	52.5	53.2	111	103	70-130	1		
p-Isopropyltoluene	ug/kg	ND	47.3	51.7	54.6	53.8	116	104	70-130	1		
sec-Butylbenzene	ug/kg	ND	47.3	51.7	52.4	51.2	111	99	70-130	2		
Styrene	ug/kg	ND	47.3	51.7	57.4	55.5	122	107	70-130	3		
tert-Butylbenzene	ug/kg	ND	47.3	51.7	54.5	57.1	115	110	70-130	5		
Tetrachloroethene	ug/kg	ND	47.3	51.7	63.8	63.7	135	123	70-130	0 M1		
Toluene	ug/kg	ND	47.3	51.7	56.5	59.3	119	115	52-163	5		
trans-1,2-Dichloroethene	ug/kg	ND	47.3	51.7	53.3	58.6	113	113	70-130	10		
trans-1,3-Dichloropropene	ug/kg	ND	47.3	51.7	56.3	55.8	119	108	70-130	1		
Trichloroethene	ug/kg	ND	47.3	51.7	67.0	69.9	142	135	49-167	4		
Trichlorofluoromethane	ug/kg	ND	47.3	51.7	49.5	54.6	105	106	70-130	10		
Vinyl acetate	ug/kg	ND	94.5	103	88.9	78.3	94	76	70-130	13		
Vinyl chloride	ug/kg	ND	47.3	51.7	56.0	64.1	118	124	70-130	14		
1,2-Dichloroethane-d4 (S)	%						92	95	70-132			
4-Bromofluorobenzene (S)	%						104	99	70-130			
Toluene-d8 (S)	%						96	95	70-130			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: MSV/26874

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 92201696022

METHOD BLANK: 1202534

Matrix: Solid

Associated Lab Samples: 92201696022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,1,1-Trichloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,1,2-Trichloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,1-Dichloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,1-Dichloroethene	ug/kg	ND	4.5	05/20/14 12:10	
1,1-Dichloropropene	ug/kg	ND	4.5	05/20/14 12:10	
1,2,3-Trichlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,2,3-Trichloropropane	ug/kg	ND	4.5	05/20/14 12:10	
1,2,4-Trichlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,2,4-Trimethylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.5	05/20/14 12:10	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.5	05/20/14 12:10	
1,2-Dichlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,2-Dichloroethane	ug/kg	ND	4.5	05/20/14 12:10	
1,2-Dichloropropane	ug/kg	ND	4.5	05/20/14 12:10	
1,3,5-Trimethylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,3-Dichlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
1,3-Dichloropropane	ug/kg	ND	4.5	05/20/14 12:10	
1,4-Dichlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
2,2-Dichloropropane	ug/kg	ND	4.5	05/20/14 12:10	
2-Butanone (MEK)	ug/kg	ND	90.6	05/20/14 12:10	
2-Chlorotoluene	ug/kg	ND	4.5	05/20/14 12:10	
2-Hexanone	ug/kg	ND	45.3	05/20/14 12:10	
4-Chlorotoluene	ug/kg	ND	4.5	05/20/14 12:10	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	45.3	05/20/14 12:10	
Acetone	ug/kg	ND	90.6	05/20/14 12:10	
Benzene	ug/kg	ND	4.5	05/20/14 12:10	
Bromobenzene	ug/kg	ND	4.5	05/20/14 12:10	
Bromochloromethane	ug/kg	ND	4.5	05/20/14 12:10	
Bromodichloromethane	ug/kg	ND	4.5	05/20/14 12:10	
Bromoform	ug/kg	ND	4.5	05/20/14 12:10	
Bromomethane	ug/kg	ND	9.1	05/20/14 12:10	
Carbon tetrachloride	ug/kg	ND	4.5	05/20/14 12:10	
Chlorobenzene	ug/kg	ND	4.5	05/20/14 12:10	
Chloroethane	ug/kg	ND	9.1	05/20/14 12:10	
Chloroform	ug/kg	ND	4.5	05/20/14 12:10	
Chloromethane	ug/kg	ND	9.1	05/20/14 12:10	
cis-1,2-Dichloroethene	ug/kg	ND	4.5	05/20/14 12:10	
cis-1,3-Dichloropropene	ug/kg	ND	4.5	05/20/14 12:10	
Dibromochloromethane	ug/kg	ND	4.5	05/20/14 12:10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

METHOD BLANK: 1202534

Matrix: Solid

Associated Lab Samples: 92201696022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	4.5	05/20/14 12:10	
Dichlorodifluoromethane	ug/kg	ND	9.1	05/20/14 12:10	
Diisopropyl ether	ug/kg	ND	4.5	05/20/14 12:10	
Ethylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
Hexachloro-1,3-butadiene	ug/kg	ND	4.5	05/20/14 12:10	
Isopropylbenzene (Cumene)	ug/kg	ND	4.5	05/20/14 12:10	
m&p-Xylene	ug/kg	ND	9.1	05/20/14 12:10	
Methyl-tert-butyl ether	ug/kg	ND	4.5	05/20/14 12:10	
Methylene Chloride	ug/kg	ND	18.1	05/20/14 12:10	
n-Butylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
n-Propylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
Naphthalene	ug/kg	ND	4.5	05/20/14 12:10	
o-Xylene	ug/kg	ND	4.5	05/20/14 12:10	
p-Isopropyltoluene	ug/kg	ND	4.5	05/20/14 12:10	
sec-Butylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
Styrene	ug/kg	ND	4.5	05/20/14 12:10	
tert-Butylbenzene	ug/kg	ND	4.5	05/20/14 12:10	
Tetrachloroethene	ug/kg	ND	4.5	05/20/14 12:10	
Toluene	ug/kg	ND	4.5	05/20/14 12:10	
trans-1,2-Dichloroethene	ug/kg	ND	4.5	05/20/14 12:10	
trans-1,3-Dichloropropene	ug/kg	ND	4.5	05/20/14 12:10	
Trichloroethene	ug/kg	ND	4.5	05/20/14 12:10	
Trichlorofluoromethane	ug/kg	ND	4.5	05/20/14 12:10	
Vinyl acetate	ug/kg	ND	45.3	05/20/14 12:10	
Vinyl chloride	ug/kg	ND	9.1	05/20/14 12:10	
Xylene (Total)	ug/kg	ND	9.1	05/20/14 12:10	
1,2-Dichloroethane-d4 (S)	%	107	70-132	05/20/14 12:10	
4-Bromofluorobenzene (S)	%	99	70-130	05/20/14 12:10	
Toluene-d8 (S)	%	99	70-130	05/20/14 12:10	

LABORATORY CONTROL SAMPLE: 1202535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	44.8	47.4	106	70-131	
1,1,1-Trichloroethane	ug/kg	44.8	42.5	95	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	44.8	43.4	97	70-130	
1,1,2-Trichloroethane	ug/kg	44.8	43.0	96	70-132	
1,1-Dichloroethane	ug/kg	44.8	37.1	83	70-143	
1,1-Dichloroethene	ug/kg	44.8	40.1	89	70-137	
1,1-Dichloropropene	ug/kg	44.8	40.3	90	70-135	
1,2,3-Trichlorobenzene	ug/kg	44.8	42.7	95	69-153	
1,2,3-Trichloropropane	ug/kg	44.8	48.2	108	70-130	
1,2,4-Trichlorobenzene	ug/kg	44.8	42.7	95	55-171	
1,2,4-Trimethylbenzene	ug/kg	44.8	50.0	112	70-149	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1202535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/kg	44.8	46.2	103	68-141	
1,2-Dibromoethane (EDB)	ug/kg	44.8	42.9	96	70-130	
1,2-Dichlorobenzene	ug/kg	44.8	45.2	101	70-140	
1,2-Dichloroethane	ug/kg	44.8	46.5	104	70-137	
1,2-Dichloropropane	ug/kg	44.8	39.4	88	70-133	
1,3,5-Trimethylbenzene	ug/kg	44.8	49.2	110	70-143	
1,3-Dichlorobenzene	ug/kg	44.8	45.1	101	70-144	
1,3-Dichloropropane	ug/kg	44.8	43.7	98	70-132	
1,4-Dichlorobenzene	ug/kg	44.8	45.7	102	70-142	
2,2-Dichloropropane	ug/kg	44.8	41.6	93	68-152	
2-Butanone (MEK)	ug/kg	89.6	71.1J	79	70-149	
2-Chlorotoluene	ug/kg	44.8	45.6	102	70-141	
2-Hexanone	ug/kg	89.6	73.5	82	70-149	
4-Chlorotoluene	ug/kg	44.8	46.1	103	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	89.6	74.2	83	70-153	
Acetone	ug/kg	89.6	93.2	104	70-157	
Benzene	ug/kg	44.8	40.6	91	70-130	
Bromobenzene	ug/kg	44.8	45.4	101	70-141	
Bromochloromethane	ug/kg	44.8	43.0	96	70-149	
Bromodichloromethane	ug/kg	44.8	47.6	106	70-130	
Bromoform	ug/kg	44.8	54.0	121	70-131	
Bromomethane	ug/kg	44.8	39.1	87	64-136	
Carbon tetrachloride	ug/kg	44.8	47.1	105	70-154	
Chlorobenzene	ug/kg	44.8	43.0	96	70-135	
Chloroethane	ug/kg	44.8	36.2	81	68-151	
Chloroform	ug/kg	44.8	45.9	102	70-130	
Chloromethane	ug/kg	44.8	36.5	81	70-132	
cis-1,2-Dichloroethene	ug/kg	44.8	41.3	92	70-140	
cis-1,3-Dichloropropene	ug/kg	44.8	42.6	95	70-137	
Dibromochloromethane	ug/kg	44.8	49.1	110	70-130	
Dibromomethane	ug/kg	44.8	44.6	100	70-136	
Dichlorodifluoromethane	ug/kg	44.8	45.6	102	36-148	
Diisopropyl ether	ug/kg	44.8	31.9	71	70-139	
Ethylbenzene	ug/kg	44.8	46.3	103	70-137	
Hexachloro-1,3-butadiene	ug/kg	44.8	43.5	97	70-145	
Isopropylbenzene (Cumene)	ug/kg	44.8	47.3	105	70-141	
m&p-Xylene	ug/kg	89.6	93.2	104	70-140	
Methyl-tert-butyl ether	ug/kg	44.8	33.5	75	45-150	
Methylene Chloride	ug/kg	44.8	40.2	90	70-133	
n-Butylbenzene	ug/kg	44.8	49.2	110	65-155	
n-Propylbenzene	ug/kg	44.8	46.5	104	70-148	
Naphthalene	ug/kg	44.8	42.7	95	70-148	
o-Xylene	ug/kg	44.8	47.2	105	70-141	
p-Isopropyltoluene	ug/kg	44.8	47.2	105	70-148	
sec-Butylbenzene	ug/kg	44.8	44.7	100	70-145	
Styrene	ug/kg	44.8	46.1	103	70-138	
tert-Butylbenzene	ug/kg	44.8	46.8	104	70-143	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1202535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	44.8	46.5	104	70-140	
Toluene	ug/kg	44.8	43.7	97	70-130	
trans-1,2-Dichloroethene	ug/kg	44.8	40.1	89	70-136	
trans-1,3-Dichloropropene	ug/kg	44.8	45.3	101	70-138	
Trichloroethene	ug/kg	44.8	46.7	104	70-132	
Trichlorofluoromethane	ug/kg	44.8	45.6	102	69-134	
Vinyl acetate	ug/kg	89.6	37.7J	42	24-161	F3
Vinyl chloride	ug/kg	44.8	43.2	97	55-140	
Xylene (Total)	ug/kg	134	140	105	70-141	
1,2-Dichloroethane-d4 (S)	%			107	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1203338

Parameter	Units	92201855005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	59.9	57.7	96	49-180	
Benzene	ug/kg	ND	59.9	62.9	101	50-166	
Chlorobenzene	ug/kg	ND	59.9	59.9	100	43-169	
Toluene	ug/kg	ND	59.9	59.0	98	52-163	
Trichloroethene	ug/kg	ND	59.9	58.6	98	49-167	
1,2-Dichloroethane-d4 (S)	%				122	70-132	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1203337

Parameter	Units	92201855003 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		
1,2-Dichloroethane	ug/kg	ND	ND		
1,2-Dichloropropane	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

SAMPLE DUPLICATE: 1203337

Parameter	Units	92201855003 Result	Dup Result	RPD	Qualifiers
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		
2-Butanone (MEK)	ug/kg	ND	17.8J		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	16.9J		
Acetone	ug/kg	200	317		45 A+
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	27.9	51.7		60
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

SAMPLE DUPLICATE: 1203337

Parameter	Units	92201855003 Result	Dup Result	RPD	Qualifiers
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	134	119	3	
4-Bromofluorobenzene (S)	%	104	104	15	
Toluene-d8 (S)	%	104	98	9	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

QC Batch: OEXT/27732 Analysis Method: EPA 8015 Modified  
QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV  
Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

METHOD BLANK: 1201280 Matrix: Solid  
Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	05/20/14 19:01	
n-Pentacosane (S)	%	82	41-119	05/20/14 19:01	

LABORATORY CONTROL SAMPLE: 1201281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	57.0	85	49-113	
n-Pentacosane (S)	%			77	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1201282 1201283

Parameter	Units	92201753001		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Diesel Components	mg/kg	36.8	92.8	92.8	86.8	96.9	54	65	10-146	11		
n-Pentacosane (S)	%						74	80	41-119			

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

QC Batch: OEXT/27755 Analysis Method: EPA 8270  
 QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave  
 Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013,  
 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

METHOD BLANK: 1201804 Matrix: Solid  
 Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013,  
 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	05/23/14 15:30	
1,2-Dichlorobenzene	ug/kg	ND	330	05/23/14 15:30	
1,3-Dichlorobenzene	ug/kg	ND	330	05/23/14 15:30	
1,4-Dichlorobenzene	ug/kg	ND	330	05/23/14 15:30	
1-Methylnaphthalene	ug/kg	ND	330	05/23/14 15:30	
2,4,5-Trichlorophenol	ug/kg	ND	330	05/23/14 15:30	
2,4,6-Trichlorophenol	ug/kg	ND	330	05/23/14 15:30	
2,4-Dichlorophenol	ug/kg	ND	330	05/23/14 15:30	
2,4-Dimethylphenol	ug/kg	ND	330	05/23/14 15:30	
2,4-Dinitrophenol	ug/kg	ND	1650	05/23/14 15:30	
2,4-Dinitrotoluene	ug/kg	ND	330	05/23/14 15:30	
2,6-Dinitrotoluene	ug/kg	ND	330	05/23/14 15:30	
2-Chloronaphthalene	ug/kg	ND	330	05/23/14 15:30	
2-Chlorophenol	ug/kg	ND	330	05/23/14 15:30	
2-Methylnaphthalene	ug/kg	ND	330	05/23/14 15:30	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	05/23/14 15:30	
2-Nitroaniline	ug/kg	ND	1650	05/23/14 15:30	
2-Nitrophenol	ug/kg	ND	330	05/23/14 15:30	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	05/23/14 15:30	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	05/23/14 15:30	
3-Nitroaniline	ug/kg	ND	1650	05/23/14 15:30	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	05/23/14 15:30	
4-Bromophenylphenyl ether	ug/kg	ND	330	05/23/14 15:30	
4-Chloro-3-methylphenol	ug/kg	ND	660	05/23/14 15:30	
4-Chloroaniline	ug/kg	ND	1650	05/23/14 15:30	
4-Chlorophenylphenyl ether	ug/kg	ND	330	05/23/14 15:30	
4-Nitroaniline	ug/kg	ND	660	05/23/14 15:30	
4-Nitrophenol	ug/kg	ND	1650	05/23/14 15:30	
Acenaphthene	ug/kg	ND	330	05/23/14 15:30	
Acenaphthylene	ug/kg	ND	330	05/23/14 15:30	
Aniline	ug/kg	ND	330	05/23/14 15:30	
Anthracene	ug/kg	ND	330	05/23/14 15:30	
Benzo(a)anthracene	ug/kg	ND	330	05/23/14 15:30	
Benzo(a)pyrene	ug/kg	ND	330	05/23/14 15:30	
Benzo(b)fluoranthene	ug/kg	ND	330	05/23/14 15:30	
Benzo(g,h,i)perylene	ug/kg	ND	330	05/23/14 15:30	
Benzo(k)fluoranthene	ug/kg	ND	330	05/23/14 15:30	
Benzoic Acid	ug/kg	ND	1650	05/23/14 15:30	
Benzyl alcohol	ug/kg	ND	660	05/23/14 15:30	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	05/23/14 15:30	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

METHOD BLANK: 1201804

Matrix: Solid

Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Chloroethyl) ether	ug/kg	ND	330	05/23/14 15:30	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	05/23/14 15:30	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	05/23/14 15:30	
Butylbenzylphthalate	ug/kg	ND	330	05/23/14 15:30	
Chrysene	ug/kg	ND	330	05/23/14 15:30	
Di-n-butylphthalate	ug/kg	ND	330	05/23/14 15:30	
Di-n-octylphthalate	ug/kg	ND	330	05/23/14 15:30	
Dibenz(a,h)anthracene	ug/kg	ND	330	05/23/14 15:30	
Dibenzofuran	ug/kg	ND	330	05/23/14 15:30	
Diethylphthalate	ug/kg	ND	330	05/23/14 15:30	
Dimethylphthalate	ug/kg	ND	330	05/23/14 15:30	
Fluoranthene	ug/kg	ND	330	05/23/14 15:30	
Fluorene	ug/kg	ND	330	05/23/14 15:30	
Hexachloro-1,3-butadiene	ug/kg	ND	330	05/23/14 15:30	
Hexachlorobenzene	ug/kg	ND	330	05/23/14 15:30	
Hexachlorocyclopentadiene	ug/kg	ND	330	05/23/14 15:30	
Hexachloroethane	ug/kg	ND	330	05/23/14 15:30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	05/23/14 15:30	
Isophorone	ug/kg	ND	330	05/23/14 15:30	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	05/23/14 15:30	
N-Nitrosodimethylamine	ug/kg	ND	330	05/23/14 15:30	
N-Nitrosodiphenylamine	ug/kg	ND	330	05/23/14 15:30	
Naphthalene	ug/kg	ND	330	05/23/14 15:30	
Nitrobenzene	ug/kg	ND	330	05/23/14 15:30	
Pentachlorophenol	ug/kg	ND	1650	05/23/14 15:30	
Phenanthrene	ug/kg	ND	330	05/23/14 15:30	
Phenol	ug/kg	ND	330	05/23/14 15:30	
Pyrene	ug/kg	ND	330	05/23/14 15:30	
2,4,6-Tribromophenol (S)	%	73	27-110	05/23/14 15:30	
2-Fluorobiphenyl (S)	%	68	30-110	05/23/14 15:30	
2-Fluorophenol (S)	%	60	13-110	05/23/14 15:30	
Nitrobenzene-d5 (S)	%	59	23-110	05/23/14 15:30	
Phenol-d6 (S)	%	64	22-110	05/23/14 15:30	
Terphenyl-d14 (S)	%	78	28-110	05/23/14 15:30	

LABORATORY CONTROL SAMPLE: 1201805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1270	76	39-101	
1,2-Dichlorobenzene	ug/kg	1670	1260	76	36-110	
1,3-Dichlorobenzene	ug/kg	1670	1210	73	35-110	
1,4-Dichlorobenzene	ug/kg	1670	1270	76	35-110	
1-Methylnaphthalene	ug/kg	1670	1340	80	45-105	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-Trichlorophenol	ug/kg	1670	1340	81	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	1240	74	45-111	
2,4-Dichlorophenol	ug/kg	1670	1400	84	51-116	
2,4-Dimethylphenol	ug/kg	1670	1330	80	42-103	
2,4-Dinitrophenol	ug/kg	8330	6010	72	28-103	
2,4-Dinitrotoluene	ug/kg	1670	1480	89	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1460	88	48-112	
2-Chloronaphthalene	ug/kg	1670	1270	76	44-105	
2-Chlorophenol	ug/kg	1670	1340	80	36-110	
2-Methylnaphthalene	ug/kg	1670	1380	83	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	1410	85	39-101	
2-Nitroaniline	ug/kg	3330	2690	81	44-111	
2-Nitrophenol	ug/kg	1670	1270	76	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1440	86	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2290	69	10-150	
3-Nitroaniline	ug/kg	3330	2760	83	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2750	82	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1340	80	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2980	89	43-127	
4-Chloroaniline	ug/kg	3330	2880	86	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1330	80	44-115	
4-Nitroaniline	ug/kg	3330	2750	82	37-111	
4-Nitrophenol	ug/kg	8330	6190	74	21-152	
Acenaphthene	ug/kg	1670	1240	75	38-117	
Acenaphthylene	ug/kg	1670	1260	76	46-107	
Aniline	ug/kg	1670	1150	69	29-110	
Anthracene	ug/kg	1670	1280	77	50-110	
Benzo(a)anthracene	ug/kg	1670	1270	76	47-116	
Benzo(a)pyrene	ug/kg	1670	1310	79	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1240	74	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1210	72	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1310	79	45-117	
Benzoic Acid	ug/kg	8330	5270	63	16-110	
Benzyl alcohol	ug/kg	3330	2950	89	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	1160	70	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	1150	69	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	1040	63	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1220	73	35-116	
Butylbenzylphthalate	ug/kg	1670	1210	73	38-110	
Chrysene	ug/kg	1670	1310	79	49-110	
Di-n-butylphthalate	ug/kg	1670	1200	72	43-109	
Di-n-octylphthalate	ug/kg	1670	1060	64	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1240	75	43-116	
Dibenzofuran	ug/kg	1670	1400	84	45-106	
Diethylphthalate	ug/kg	1670	1240	74	41-114	
Dimethylphthalate	ug/kg	1670	1260	75	43-110	
Fluoranthene	ug/kg	1670	1250	75	50-114	

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

LABORATORY CONTROL SAMPLE: 1201805

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	1670	1320	79	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	1250	75	28-111	
Hexachlorobenzene	ug/kg	1670	1400	84	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	1240	75	18-119	
Hexachloroethane	ug/kg	1670	1190	71	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	959	58	42-115	
Isophorone	ug/kg	1670	1350	81	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	1110	66	43-104	
N-Nitrosodimethylamine	ug/kg	1670	1010	61	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1110	66	48-113	
Naphthalene	ug/kg	1670	1230	74	41-110	
Nitrobenzene	ug/kg	1670	1280	77	38-110	
Pentachlorophenol	ug/kg	3330	2300	69	32-128	
Phenanthrene	ug/kg	1670	1270	76	50-110	
Phenol	ug/kg	1670	1470	88	28-106	
Pyrene	ug/kg	1670	1320	79	45-114	
2,4,6-Tribromophenol (S)	%			93	27-110	
2-Fluorobiphenyl (S)	%			78	30-110	
2-Fluorophenol (S)	%			74	13-110	
Nitrobenzene-d5 (S)	%			69	23-110	
Phenol-d6 (S)	%			83	22-110	
Terphenyl-d14 (S)	%			86	28-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1201806 1201807

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result					
1,2,4-Trichlorobenzene	ug/kg	ND	1820	1820	1290	1240	71	68	18-119	4
1,2-Dichlorobenzene	ug/kg	ND	1820	1820	1310	1270	72	70	50-110	2
1,3-Dichlorobenzene	ug/kg	ND	1820	1820	1260	1230	69	68	27-110	3
1,4-Dichlorobenzene	ug/kg	ND	1820	1820	1310	1260	72	70	28-110	4
1-Methylnaphthalene	ug/kg	ND	1820	1820	1310	1260	72	70	24-116	4
2,4,5-Trichlorophenol	ug/kg	ND	1820	1820	1330	1310	73	72	28-110	1
2,4,6-Trichlorophenol	ug/kg	ND	1820	1820	1240	1180	68	65	17-117	5
2,4-Dichlorophenol	ug/kg	ND	1820	1820	1410	1340	78	74	21-128	5
2,4-Dimethylphenol	ug/kg	ND	1820	1820	1380	1310	76	72	10-120	5
2,4-Dinitrophenol	ug/kg	ND	9070	9070	5760	5730	63	63	10-107	0
2,4-Dinitrotoluene	ug/kg	ND	1820	1820	1420	1390	78	77	36-109	1
2,6-Dinitrotoluene	ug/kg	ND	1820	1820	1410	1390	78	77	32-110	1
2-Chloronaphthalene	ug/kg	ND	1820	1820	1290	1230	71	68	30-107	4
2-Chlorophenol	ug/kg	ND	1820	1820	1380	1280	76	71	14-106	7
2-Methylnaphthalene	ug/kg	ND	1820	1820	1350	1300	75	71	10-135	4
2-Methylphenol(o-Cresol)	ug/kg	ND	1820	1820	1380	1360	76	75	10-124	2
2-Nitroaniline	ug/kg	ND	3620	3620	2640	2600	73	72	26-116	2
2-Nitrophenol	ug/kg	ND	1820	1820	1280	1220	71	67	28-103	5

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Parameter	Units	1201806		1201807		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92201696002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	1820	1820	1410	1390	78	77	10-109	1		
3,3'-Dichlorobenzidine	ug/kg	ND	3620	3620	2300	2320	63	64	10-150	1		
3-Nitroaniline	ug/kg	ND	3620	3620	2690	2670	74	74	22-110	1		
4,6-Dinitro-2-methylphenol	ug/kg	ND	3620	3620	2750	2690	76	74	13-121	2		
4-Bromophenylphenyl ether	ug/kg	ND	1820	1820	1290	1270	71	70	31-109	1		
4-Chloro-3-methylphenol	ug/kg	ND	3620	3620	2850	2830	78	78	13-128	1		
4-Chloroaniline	ug/kg	ND	3620	3620	2810	2710	77	75	18-102	3		
4-Chlorophenylphenyl ether	ug/kg	ND	1820	1820	1270	1240	70	68	29-112	3		
4-Nitroaniline	ug/kg	ND	3620	3620	2670	2670	73	74	16-111	0		
4-Nitrophenol	ug/kg	ND	9070	9070	5920	5910	65	65	14-135	0		
Acenaphthene	ug/kg	ND	1820	1820	1210	1180	67	65	26-114	2		
Acenaphthylene	ug/kg	ND	1820	1820	1240	1200	68	66	32-108	3		
Aniline	ug/kg	ND	1820	1820	1100	1080	61	59	10-107	2		
Anthracene	ug/kg	ND	1820	1820	1260	1240	70	68	32-111	2		
Benzo(a)anthracene	ug/kg	ND	1820	1820	1220	1200	67	66	25-117	1		
Benzo(a)pyrene	ug/kg	ND	1820	1820	1270	1250	70	69	25-106	1		
Benzo(b)fluoranthene	ug/kg	ND	1820	1820	1230	1190	68	66	24-110	3		
Benzo(g,h,i)perylene	ug/kg	ND	1820	1820	1130	1220	62	67	19-112	7		
Benzo(k)fluoranthene	ug/kg	ND	1820	1820	1220	1220	68	67	24-114	0		
Benzoic Acid	ug/kg	ND	9070	9070	4390	4770	48	53	10-110	8		
Benzyl alcohol	ug/kg	ND	3620	3620	2870	2800	79	77	24-106	3		
bis(2-Chloroethoxy)methane	ug/kg	ND	1820	1820	1170	1120	65	62	13-119	4		
bis(2-Chloroethyl) ether	ug/kg	ND	1820	1820	1180	1120	65	62	10-134	5		
bis(2-Chloroisopropyl) ether	ug/kg	ND	1820	1820	1050	1010	58	56	10-113	3		
bis(2-Ethylhexyl)phthalate	ug/kg	ND	1820	1820	1170	1140	65	63	10-125	3		
Butylbenzylphthalate	ug/kg	ND	1820	1820	1180	1150	65	63	18-110	3		
Chrysene	ug/kg	ND	1820	1820	1240	1240	69	68	30-110	1		
Di-n-butylphthalate	ug/kg	ND	1820	1820	1170	1150	65	63	19-112	2		
Di-n-octylphthalate	ug/kg	ND	1820	1820	1030	1020	57	56	17-105	1		
Dibenz(a,h)anthracene	ug/kg	ND	1820	1820	1160	1260	64	69	23-111	8		
Dibenzofuran	ug/kg	ND	1820	1820	1360	1340	75	74	35-103	1		
Diethylphthalate	ug/kg	ND	1820	1820	1190	1190	66	65	27-113	1		
Dimethylphthalate	ug/kg	ND	1820	1820	1220	1190	68	66	26-111	3		
Fluoranthene	ug/kg	ND	1820	1820	1240	1230	68	68	33-109	1		
Fluorene	ug/kg	ND	1820	1820	1270	1260	70	70	32-113	0		
Hexachloro-1,3-butadiene	ug/kg	ND	1820	1820	1260	1200	70	66	16-116	5		
Hexachlorobenzene	ug/kg	ND	1820	1820	1400	1370	77	75	27-120	3		
Hexachlorocyclopentadiene	ug/kg	ND	1820	1820	1230	1170	68	65	10-108	4		
Hexachloroethane	ug/kg	ND	1820	1820	1240	1190	68	66	10-117	4		
Indeno(1,2,3-cd)pyrene	ug/kg	ND	1820	1820	906	957	50	53	10-122	6		
Isophorone	ug/kg	ND	1820	1820	1330	1280	74	70	28-114	4		
N-Nitroso-di-n-propylamine	ug/kg	ND	1820	1820	1070	1040	59	57	27-113	2		
N-Nitrosodimethylamine	ug/kg	ND	1820	1820	1030	995	57	55	10-109	3		
N-Nitrosodiphenylamine	ug/kg	ND	1820	1820	1120	1090	62	60	10-128	2		
Naphthalene	ug/kg	ND	1820	1820	1240	1190	68	66	25-110	4		

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Parameter	Units	1201806		1201807		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92201696002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Nitrobenzene	ug/kg	ND	1820	1820	1300	1230	72	68	18-114	6		
Pentachlorophenol	ug/kg	ND	3620	3620	2440	2350	67	65	10-122	4		
Phenanthrene	ug/kg	ND	1820	1820	1260	1220	70	67	30-114	3		
Phenol	ug/kg	ND	1820	1820	1430	1380	79	76	11-102	4		
Pyrene	ug/kg	ND	1820	1820	1270	1240	70	69	25-116	2		
2,4,6-Tribromophenol (S)	%						86	84	27-110			
2-Fluorobiphenyl (S)	%						70	67	30-110			
2-Fluorophenol (S)	%						68	65	13-110			
Nitrobenzene-d5 (S)	%						64	61	23-110			
Phenol-d6 (S)	%						73	70	22-110			
Terphenyl-d14 (S)	%						69	68	28-110			

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

QC Batch: OEXT/27754 Analysis Method: MADEP EPH  
QC Batch Method: MADEP EPH Analysis Description: MADEP EPH NC Soil  
Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

METHOD BLANK: 1201798 Matrix: Solid  
Associated Lab Samples: 92201696002, 92201696004, 92201696006, 92201696007, 92201696009, 92201696011, 92201696013, 92201696015, 92201696017, 92201696018, 92201696020, 92201696023, 92201696025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aliphatic (C09-C18)	mg/kg	ND	10.0	05/20/14 07:53	N2
Aliphatic (C19-C36)	mg/kg	ND	10.0	05/20/14 07:53	N2
Aromatic (C11-C22)	mg/kg	ND	10.0	05/20/14 06:16	N2
2-Bromonaphthalene (S)	%	92	40-140	05/20/14 06:16	
2-Fluorobiphenyl (S)	%	79	40-140	05/20/14 06:16	
Nonatriacontane (S)	%	86	40-140	05/20/14 07:53	
o-Terphenyl (S)	%	77	40-140	05/20/14 06:16	

Parameter	Units	LABORATORY CONTROL SAMPLE & LCSD: 1201799 1201800						RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits			
Aliphatic (C09-C18)	mg/kg	10	ND	ND	78	88	40-140		50	N2
Aliphatic (C19-C36)	mg/kg	13.3	12.1	13.5	91	101	40-140	11	50	N2
Aromatic (C11-C22)	mg/kg	28.3	19.7	18.3	70	65	40-140	8	50	N2
2-Bromonaphthalene (S)	%				79	74	40-140			
2-Fluorobiphenyl (S)	%				77	67	40-140			
Nonatriacontane (S)	%				85	89	40-140			
o-Terphenyl (S)	%				75	71	40-140			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

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QC Batch:	PMST/6585	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	92201696025		

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SAMPLE DUPLICATE: 1202662

Parameter	Units	92201267003 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.4	30.4	35	R1

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SAMPLE DUPLICATE: 1202663

Parameter	Units	92201832001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	19.4	19.1	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-C Pace Analytical Services - Charlotte

### ANALYTE QUALIFIERS

A+ The reaction of the soil preservative, sodium bisulfate, is known to react with humic acid in soils to produce ketones. Based upon method blank results, the laboratory feels the ketones in this sample are a result of that reaction.

F3 The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.

IO The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N2 The lab does not hold TNI accreditation for this parameter.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92201696002	B-18-01A (5-7 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696004	B-18-02A (4-5 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696006	B-18-03A (4-5 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696007	B-18-04A (1-3 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696009	B-18-05 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696011	B-18-06 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696013	B-18-07 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696015	B-18-08 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696017	Dup-1	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696018	B-18-09 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696020	B-18-10 (1-2 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696023	B-18-11 (5-7 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696025	B-18-12 (5-7 ft)	EPA 3546	OEXT/27732	EPA 8015 Modified	GCSV/17641
92201696002	B-18-01A (5-7 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696004	B-18-02A (4-5 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696006	B-18-03A (4-5 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696007	B-18-04A (1-3 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696009	B-18-05 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696011	B-18-06 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696013	B-18-07 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696015	B-18-08 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696017	Dup-1	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696018	B-18-09 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696020	B-18-10 (1-2 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696023	B-18-11 (5-7 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696025	B-18-12 (5-7 ft)	MADEP EPH	OEXT/27754	MADEP EPH	GCSV/17651
92201696002	B-18-01A (5-7 ft)	EPA 5035A/5030B	GCV/8131	EPA 8015 Modified	GCV/8133
92201696004	B-18-02A (4-5 ft)	EPA 5035A/5030B	GCV/8131	EPA 8015 Modified	GCV/8133
92201696006	B-18-03A (4-5 ft)	EPA 5035A/5030B	GCV/8131	EPA 8015 Modified	GCV/8133
92201696007	B-18-04A (1-3 ft)	EPA 5035A/5030B	GCV/8131	EPA 8015 Modified	GCV/8133
92201696009	B-18-05 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696011	B-18-06 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696013	B-18-07 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696015	B-18-08 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696017	Dup-1	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696018	B-18-09 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696020	B-18-10 (1-2 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696023	B-18-11 (5-7 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696025	B-18-12 (5-7 ft)	EPA 5035A/5030B	GCV/8139	EPA 8015 Modified	GCV/8141
92201696001	B-18-01A (1-3 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696002	B-18-01A (5-7 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696003	B-18-02A (1-2 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696004	B-18-02A (4-5 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696005	B-18-03A (1-2 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696006	B-18-03A (4-5 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696007	B-18-04A (1-3 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fayetteville, B-4490 33727.1.1

Pace Project No.: 92201696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92201696008	B-18-04A (5-7 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696009	B-18-05 (1-2 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696010	B-18-05 (4-5 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696011	B-18-06 (1-2 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696012	B-18-06 (4-5 ft)	MADEP VPH	GCV/8096	MADEP VPH	GCV/8107
92201696013	B-18-07 (1-2 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696014	B-18-07 (4-5 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696015	B-18-08 (1-2 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696016	B-18-08 (4-5 ft)	MADEP VPH	GCV/8095	MADEP VPH	GCV/8098
92201696017	Dup-1	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696018	B-18-09 (1-2 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696019	B-18-09 (4-5 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696020	B-18-10 (1-2 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696021	B-18-10 (4-5 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696022	B-18-11 (1-3 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696023	B-18-11 (5-7 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696024	B-18-12 (1-3 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696025	B-18-12 (5-7 ft)	MADEP VPH	GCV/8112	MADEP VPH	GCV/8114
92201696001	B-18-01A (1-3 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696002	B-18-01A (5-7 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696003	B-18-02A (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696004	B-18-02A (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696005	B-18-03A (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696006	B-18-03A (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696007	B-18-04A (1-3 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696008	B-18-04A (5-7 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696009	B-18-05 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696010	B-18-05 (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696011	B-18-06 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696012	B-18-06 (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696013	B-18-07 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696014	B-18-07 (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696015	B-18-08 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696016	B-18-08 (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696017	Dup-1	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696018	B-18-09 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696019	B-18-09 (4-5 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696020	B-18-10 (1-2 ft)	EPA 3050	MPRP/16021	EPA 6010	ICP/14487
92201696021	B-18-10 (4-5 ft)	EPA 3050	MPRP/16030	EPA 6010	ICP/14494
92201696022	B-18-11 (1-3 ft)	EPA 3050	MPRP/16030	EPA 6010	ICP/14494
92201696023	B-18-11 (5-7 ft)	EPA 3050	MPRP/16030	EPA 6010	ICP/14494
92201696024	B-18-12 (1-3 ft)	EPA 3050	MPRP/16030	EPA 6010	ICP/14494
92201696025	B-18-12 (5-7 ft)	EPA 3050	MPRP/16030	EPA 6010	ICP/14494
92201696002	B-18-01A (5-7 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696004	B-18-02A (4-5 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696006	B-18-03A (4-5 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92201696007	B-18-04A (1-3 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696009	B-18-05 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696011	B-18-06 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696013	B-18-07 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696015	B-18-08 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696017	Dup-1	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696018	B-18-09 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696020	B-18-10 (1-2 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696023	B-18-11 (5-7 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696025	B-18-12 (5-7 ft)	EPA 3546	OEXT/27755	EPA 8270	MSSV/9152
92201696001	B-18-01A (1-3 ft)	EPA 8260	MSV/26859		
92201696002	B-18-01A (5-7 ft)	EPA 8260	MSV/26859		
92201696003	B-18-02A (1-2 ft)	EPA 8260	MSV/26859		
92201696004	B-18-02A (4-5 ft)	EPA 8260	MSV/26859		
92201696005	B-18-03A (1-2 ft)	EPA 8260	MSV/26859		
92201696006	B-18-03A (4-5 ft)	EPA 8260	MSV/26859		
92201696007	B-18-04A (1-3 ft)	EPA 8260	MSV/26859		
92201696008	B-18-04A (5-7 ft)	EPA 8260	MSV/26859		
92201696009	B-18-05 (1-2 ft)	EPA 8260	MSV/26859		
92201696010	B-18-05 (4-5 ft)	EPA 8260	MSV/26859		
92201696011	B-18-06 (1-2 ft)	EPA 8260	MSV/26860		
92201696012	B-18-06 (4-5 ft)	EPA 8260	MSV/26860		
92201696013	B-18-07 (1-2 ft)	EPA 8260	MSV/26860		
92201696014	B-18-07 (4-5 ft)	EPA 8260	MSV/26860		
92201696015	B-18-08 (1-2 ft)	EPA 8260	MSV/26860		
92201696016	B-18-08 (4-5 ft)	EPA 8260	MSV/26860		
92201696017	Dup-1	EPA 8260	MSV/26860		
92201696018	B-18-09 (1-2 ft)	EPA 8260	MSV/26860		
92201696019	B-18-09 (4-5 ft)	EPA 8260	MSV/26860		
92201696020	B-18-10 (1-2 ft)	EPA 8260	MSV/26860		
92201696021	B-18-10 (4-5 ft)	EPA 8260	MSV/26860		
92201696022	B-18-11 (1-3 ft)	EPA 8260	MSV/26874		
92201696023	B-18-11 (5-7 ft)	EPA 8260	MSV/26866		
92201696024	B-18-12 (1-3 ft)	EPA 8260	MSV/26866		
92201696025	B-18-12 (5-7 ft)	EPA 8260	MSV/26866		
92201696001	B-18-01A (1-3 ft)	ASTM D2974-87	PMST/6581		
92201696002	B-18-01A (5-7 ft)	ASTM D2974-87	PMST/6581		
92201696003	B-18-02A (1-2 ft)	ASTM D2974-87	PMST/6581		
92201696004	B-18-02A (4-5 ft)	ASTM D2974-87	PMST/6581		
92201696005	B-18-03A (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696006	B-18-03A (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696007	B-18-04A (1-3 ft)	ASTM D2974-87	PMST/6582		
92201696008	B-18-04A (5-7 ft)	ASTM D2974-87	PMST/6582		
92201696009	B-18-05 (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696010	B-18-05 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696011	B-18-06 (1-2 ft)	ASTM D2974-87	PMST/6582		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fayetteville, B-4490 33727.1.1  
Pace Project No.: 92201696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92201696012	B-18-06 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696013	B-18-07 (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696014	B-18-07 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696015	B-18-08 (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696016	B-18-08 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696017	Dup-1	ASTM D2974-87	PMST/6582		
92201696018	B-18-09 (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696019	B-18-09 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696020	B-18-10 (1-2 ft)	ASTM D2974-87	PMST/6582		
92201696021	B-18-10 (4-5 ft)	ASTM D2974-87	PMST/6582		
92201696022	B-18-11 (1-3 ft)	ASTM D2974-87	PMST/6582		
92201696023	B-18-11 (5-7 ft)	ASTM D2974-87	PMST/6582		
92201696024	B-18-12 (1-3 ft)	ASTM D2974-87	PMST/6582		
92201696025	B-18-12 (5-7 ft)	ASTM D2974-87	PMST/6585		

### REPORT OF LABORATORY ANALYSIS

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Document Name:  
**Sample Condition Upon Receipt (SCUR)**  
 Document Number:  
**F-CHR-CS-003-rev.14**

Document Revised: April 07, 2014  
 Page 1 of 2  
 Issuing Authority:  
 Pace Huntersville Quality Office

Client Name: Schubel Eng.

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used: IR Gun T1102 **T1401** Type of Ice: **Wet** Blue None  Samples on ice, cooling process has begun

Temp Correction Factor **T1102: No Correction** **T1301: No Correction**

Corrected Cooler Temp.: 1.8 °C Biological Tissue is Frozen: Yes No **N/A**

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 05/16/14

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>Sample #7 <del>is</del> kit one Organic Free Dialb ok</u>
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

SCURF Review:	<u>23</u>	Date:	<u>5/16/14</u>
SRF Review:	<u>1/2</u>	Date:	<u>5/17/14</u>

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92201696





**CHAIN-OF-CUSTODY / Analytical Request Document**  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

92201696

Section A Required Client Information: Company: **Schmidt Engineers** Report To: **Eric Bradley** Section B Required Project Information: Report To: **Eric Bradley** Section C Invoice Information: Attention: **MBS 33727.1.1** Page: **1806112** of **1806112**

Address: **11 Oak Branch Blvd** Copy To: **Eric Bradley** Company Name: **MBS 33727.1.1** Address: **MBS 33727.1.1** Requested Due Date/TAT: **11/21/13** Project Number: **11871013.33** Requested Analysis Filtered (Y/N): **Y** Site Location: **UST** Regulatory Agency: **NPDES** Ground Water:  Drinking Water:  Other:

ITEM #	Section D Required Client Information	Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB							
1	B-18-014 (1-3 FT)	Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air AR TS OT	S	G-15-114-114	1140	1140	1140	Unpreserved	H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other	Diesel Gas 8260 8270 EPH VPH Metals (Cr+Pb)	X	001	
2	B-18-014 (3-7 FT)				1140	1140	1140				X	002	
3	B-18-02A (1-2 FT)				12:05	12:05	12:05				X	003	
4	B-18-02A (4-5 FT)				12:25	12:25	12:25				X	004	
5	B-18-03A (1-2 FT)				11:05	11:05	11:05				X	005	
6	B-18-03A (4-5 FT)				11:05	11:05	11:05				X	006	
7	B-18-04A (1-3 FT)				1:05	1:05	1:05				X	007	
8	B-18-04A (5-7 FT)				1:25	1:25	1:25				X	008	
9	B-18-05 (1-2 FT)				1:25	1:25	1:25				X	009	
10	B-18-05 (4-5 FT)				1:25	1:25	1:25				X	010	
11	B-18-06 (1-2 FT)				1:50	1:50	1:50				X	011	
12	B-18-06 (4-5 FT)				1:50	1:50	1:50				X	012	

ADDITIONAL COMMENTS: **Relinquished by Affiliation** DATE: **5/24/14** TIME: **4:00 PM** ACCEPTED BY / AFFILIATION: **ACE** DATE: **5/16/14** TIME: **0945** SAMPLE CONDITIONS: **1.8** Temp in °C: **Y** Received on Ice (Y/N): **Y** Custody Sealed Cooler (Y/N): **Y** Samples Intact (Y/N): **Y**

**ORIGINAL**

\*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

**CHAIN-OF-CUSTODY / Analytical Request Document**  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

92201690

**Section A** Required Client Information: Company: Schepel Surveys Report To: Ben Bradley **Section B** Invoice Information: Invoice Number: 1821013.33 **Section C** Regulatory Agency: NPDES GROUND WATER DRINKING WATER

Address: 1 Oak Branch Dr Copy To: Ben Bradley Attention: Ben Bradley Company Name: WRS 33721.1.1 Email To: Ben Bradley Purchase Order No.: 1821013.33 Address: WRS 33721.1.1 Reference: WRS 33721.1.1 Project Name: WRS 33721.1.1 Manager: WRS 33721.1.1 Pace Profile #: WRS 33721.1.1 Site Location: UST STATE: NC

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					DATE	TIME			COMPOSITE START	COMPOSITE END/GRAB	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH				
1	B-18-07 (1-2 ft)		S6		5-15	2:05												013	
2	B-18-07 (4-5 ft)				2:05													014	
3	B-18-08 (1-2 ft)				2:20													015	
4	B-18-08 (4-5 ft)				1:20													016	
5	Dup-1																	017	
6	B-18-09 (1-2 ft)				2:45													019	
7	B-18-09 (4-5 ft)				2:45													019	
8	B-18-10 (1-2 ft)				2:55													020	
9	B-18-10 (4-5 ft)				2:55													021	
10	B-18-11 (1-3 ft)				3:05													022	
11	B-18-11 (5-7 ft)				3:05													023	
12																			

ADDITIONAL COMMENTS: Benjamin F. Murphy RELINQUISHED BY / AFFILIATION: ST-14 DATE: 4:00 TIME: AM ACCEPTED BY / AFFILIATION: NAKE DATE: 5/10/14 TIME: 0945 SAMPLE CONDITIONS: 1.8 Y N Y

SAMPLER NAME AND SIGNATURE: Benjamin F. Murphy DATE SIGNED: MM/DD/YY

PRINT Name of SAMPLER: ST-14 SIGNATURE of SAMPLER: NAKE

Temp in °C: 1.8 Received on Ice (Y/N): Y Custody Sealed Cooler (Y/N): N Samples Intact (Y/N): Y

**ORIGINAL**

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.  
F-ALL-Q-020rev.07, 15-May-2007

