

**GEL**

**Engineering of NC INC**

an affiliate of **The GEL Group INC**

## **PRELIMINARY SITE ASSESSMENT REPORT**

**25 Casey Road  
Robert Larry Pressley Property, Parcel 004  
Cullowhee, North Carolina  
State Project B-4159  
WBS Element #33507.1.1  
Jackson County**

North Carolina Department of Transportation  
Geotechnical Engineering Unit  
1589 Mail Service Center  
Raleigh, North Carolina 27699-1589

May 13, 2014

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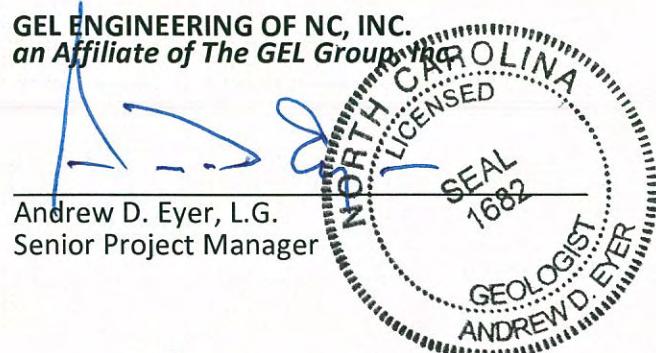
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## Signature Page

This document, entitled *Preliminary Site Assessment Report*, has been prepared for the Robert Larry Pressley Property (Parcel 004), located at 25 Casey Road in Cullowhee, North Carolina (State Project B-4159, WBS Element #33507.1.1, Jackson County). It has been prepared by GEL Engineering of NC, Inc. in accordance with the Notice to Proceed provided by the North Carolina Department of Transportation-GeoEnvironmental Section, Geotechnical Engineering Unit for the exclusive use of the North Carolina Department of Transportation. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned.



05-13-14

Date

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Robert Larry Pressley Property, Parcel 004  
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State Project B-4159, WBS Element #33507.1.1  
Jackson County**

### **Executive Summary**

The subject site is the western portion of the Robert Larry Pressley property (Parcel 004) located at 25 Casey Road in Cullowhee, North Carolina. The primary purpose of this investigation was to evaluate the presence or absence of underground storage tanks (USTs) and constituents of concern in soil within the accessible portions of the existing and proposed easements and NCDOT rights-of-way (ROWS) for Old Cullowhee Road and Casey Road within and adjacent to the western portion of Parcel 004 as a result of previous and/or current operations at the subject site.

Parcel 004 extends from Old Cullowhee Road in an easterly direction along both sides of Casey Road. Portions of the parcel also border Old Cullowhee Road and the Tuckasegee River. The investigation area contains a 2-story structure housing a residence and an auto repair business, and an auto body shop with a detached carport. The properties within the investigation area reportedly never stored or dispensed petroleum products.

Representatives of the North Carolina Department of Environment and Natural Resources (NCDENR) Asheville District office indicated that there are no files for the site in its database, including UST closure records. There is currently no visible evidence of existing USTs or vents at the site, and no NCDENR UST Incident number or Facility ID number has been assigned to the property.

GEL Engineering of NC, Inc. (GEL) performed a preliminary site assessment within the accessible portions of the existing and proposed easements and NCDOT ROWs in the western portion of Parcel 004 that included a geophysical investigation, and the collection and analysis of soil samples. No subsurface anomalies indicative of suspected or known USTs were identified within the investigation area.

## **Executive Summary (continued)**

Soil samples were collected for analysis from four borings constructed within the investigation area and analyzed for petroleum hydrocarbon constituents. Three of the samples were also analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Gasoline Range Organics (GRO) was not detected in any of the collected soil samples analyzed for the respective hydrocarbon constituents. Diesel Range Organics (DRO) was detected at a level exceeding the NCDENR DRO Action Level in the soil sample collected from boring S4-3. In addition, two SVOCs, benzo(a)anthracene and benzo(a)pyrene, were detected in sample S4-3 at levels exceeding their respective NCDENR Maximum Soil Contaminant Concentrations (MSCCs).

Based on the detection of an elevated DRO concentration in the soil sample, it is estimated that there is an approximate total volume of 83 cubic yards of impacted soil (DRO >10 mg/kg) in the vicinity of boring S4-3.

No additional environmental investigation of the soil at the site by NCDOT is recommended at this time. However, it is recommended that soils excavated in the vicinity of boring S4-3 as part of planned construction activities by NCDOT be handled appropriately and further characterized for petroleum constituents, as needed.

## **PRELIMINARY SITE ASSESSMENT REPORT**

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Jackson County**

### **1.0 Introduction**

This document presents the details of a geophysical survey and preliminary site assessment performed at a portion of the Robert Larry Pressley property (Parcel 004) located at 25 Casey Road in Cullowhee, North Carolina. The investigation was performed within the accessible portions of the existing and proposed easements and North Carolina NCDOT rights-of-way (ROWS) for Old Cullowhee Road and Casey Road within and adjacent to the western portion of Parcel 004.

Parcel 004 extends from Old Cullowhee Road in an easterly direction along both sides of Casey Road. Portions of the parcel also border Old Cullowhee Road and the Tuckasegee River. The parcel contains several structures, including residences, an auto repair business, and an auto body shop. The site location is shown on Figure 1, an excerpt from the United States Geological Survey (USGS) 7.5-minute quadrangle map of Sylva South, North Carolina. The preliminary site assessment was conducted by GEL Engineering of NC, Inc. (GEL) in accordance with the Notice to Proceed issued by NCDOT on December 16, 2013.

The primary purpose of this investigation was to evaluate the presence or absence of underground storage tanks (USTs) and/or constituents of concern in soil within accessible portions of the existing and proposed easements and NCDOT ROWs as a result of current and/or former operations.

### **2.0 Background**

NCDOT is planning road improvements to the area in the vicinity of Old Cullowhee Road in Cullowhee, North Carolina. NCDOT wanted to assess the areas within and adjacent to the western portion of Parcel 004 to evaluate the presence or absence of USTs and soil contamination related to the current and/or former on-site operations, and the impact (if any) of these operations on the proposed road improvements and use of existing and proposed easements. Figures 2 through 4 show the general site layout for Parcel 004.

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**fc: ncdt01413**

As shown in Figure 2, the investigation area specified by NCDOT included the western portion of Parcel 004 that is located within and adjacent to NCDOT's proposed ROWs, and includes existing and proposed public utility easements that transect Parcel 004 and include Casey Road, as shown in Figure 2. The investigation area contains a 2-story structure housing a residence and an auto repair business (Photographs 1 and 3 in Appendix I), and an auto body shop with a detached carport (Photograph 4). The properties within the investigation area reportedly never stored or dispensed petroleum products.

Representatives of the North Carolina Department of Environment and Natural Resources (NCDENR) Asheville District office indicated that there are no files for the site in its database, including UST closure records. There is currently no visible evidence of existing USTs or vents at the site, and NCDENR representatives indicated that no NCDENR UST Incident number or Facility ID number has been assigned to the property.

### **3.0 Local Geology and Surroundings**

Parcel 004 is located in a developed area of Cullowhee in Jackson County, North Carolina. Surrounding land uses include residential and commercial activities. The parcel abuts Casey Road, Old Cullowhee Road, and the Tuckasegee River.

This area is located in the Blue Ridge Belt within the Blue Ridge Physiographic of North Carolina. The land surface of the area is characterized by mountainous terrain. The Blue Ridge Belt is typified by a complex of sedimentary, metamorphic, and igneous rocks, including felsic gneiss and granite that are Late Proterozoic in age. The Cullowhee area is located adjacent to and within the Tuckasegee River floodplain.

The United States Department of Agriculture's *Web Soil Survey* (2014) (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>) maps the native soil in the investigation area as "Braddock-Urban Land Complex" (BrC), which is characterized as stream terraces consisting of clay and clay loam derived from old alluvium, and "Udorthents-Urban Land Complex" (UfB), which is characterized as floodplain physiography that is occasionally flooded and consists of loamy and clayey mine spoil or earthy fill derived from metasedimentary rocks. The soils encountered at the site during the preliminary site assessment for Parcel 004 consisted predominantly of red/brown sandy silt and gravels overlying saprolite and weathered gneiss bedrock.

Groundwater was not encountered in borings constructed as part of the preliminary site assessment. Previous depth to groundwater measurements made in monitoring wells located in the Cullowhee area indicate the water table in the area of the site is typically located at depths of at least 20 feet below ground surface (bgs). Based on the USGS topographic map presented as Figure 1, the site is located approximately 2140 feet above mean sea level. The topography in Figure 1 indicates that groundwater in the vicinity of Parcel 004 most likely flows in a northeasterly direction towards the Tuckasegee River. Storm water from the site, as well as from adjacent sites surrounding Parcel 004, flows in a northerly direction to the river.

#### **4.0 Subsurface Investigation**

To evaluate the presence or absence of USTs and/or impact to subsurface soil within the accessible portions of the existing and proposed easements and NCDOT ROWs in the western portion of Parcel 004, GEL performed a limited site assessment within the accessible portions of the highlighted area shown in Figure 2 that consisted of the following tasks:

- Performance of a geophysical investigation to identify the presence or absence of USTs and associated appurtenances within the accessible portions of the existing and proposed easements and ROWs.
- Soil vapor screening of soil samples collected from subsurface soil borings located within the accessible portions of the existing and proposed easements and ROWs to evaluate the potential presence or absence of soil impact from petroleum constituents of concern.
- Collection and laboratory analysis of soil samples from the subsurface borings.

The details of these tasks are discussed in the following sections.

##### **4.1 Geophysical Survey**

The geophysical survey included the deployment of ground penetrating radar (GPR) technology and time domain electromagnetic technology (TDEM) to the site. These technologies were used in concert with one another in order to identify subsurface metallic anomalies and, more specifically, to identify the potential presence of USTs within the investigation area. A brief description of each technology is presented in the

following paragraphs followed by a discussion of the results of the geophysical investigation.

#### **4.1.1 Ground Penetrating Radar Methodology**

A RAMAC digital radar control system configured with a 250 Megahertz (MHz) antenna array was used in this investigation. GPR is an electromagnetic geophysical method that detects interfaces between subsurface materials with differing dielectric constants. The GPR system consists of an antenna that houses the transmitter and receiver, a digital control unit that both generates and digitally records the GPR data, and a color video monitor to view data as they are collected in the field.

The transmitter radiates repetitive short-duration electromagnetic waves (at radar frequencies) into the earth from an antenna moving across the ground surface. These radar waves are reflected back to the receiver from the interface of materials with different dielectric constants. The intensity of the reflected signal is a function of the contrast in the dielectric constant between the materials, the conductivity of the material through which the wave is traveling, and the frequency of the signal. Subsurface features that commonly cause such reflections are: 1) natural geologic conditions, such as changes in sediment composition, bedding, and cementation horizons and voids; or 2) unnatural changes to the subsurface, such as disturbed soils, soil backfill, buried debris, tanks, pipelines, and utilities. The digital control unit processes the signal from the receiver and produces a continuous cross-section of the subsurface interface reflection events.

GPR data profiles are collected along transects, which are measured paths along which the GPR antenna is moved. During a survey, marks are placed in the data by the operator at designated points along the GPR transects or with a survey wheel odometer. These marks allow for a correlation between the GPR data and the position of the GPR antenna on the ground.

Depth of investigation of the GPR signal is highly site-specific and is limited by signal attenuation (absorption) in the subsurface materials. Signal attenuation is dependent on the electrical conductivity of the subsurface materials. Signal attenuation is greatest in materials with relatively high electrical conductivities, such as clays, brackish groundwater, or groundwater with a high dissolved solid content from natural or man-

made sources. Signal attenuation is lowest in relatively low-conductivity materials, such as dry sand or rock. Depth of investigation is also dependent on the antenna's transmitting frequency. Depth of investigation generally increases as transmitting frequency decreases; however, the ability to resolve smaller subsurface features is diminished as frequency is decreased.

The GPR antenna used at this site is internally shielded from aboveground interference sources. Accordingly, the GPR response is not affected by overhead power lines, metallic buildings, or nearby objects.

#### **4.1.2 Time Domain Electromagnetic Methodology**

The TDEM methods measure the electrical conductivity of subsurface materials. The conductivity is determined by inducing (from a transmitter) a time or frequency-varying magnetic field and measuring (with a receiver) the amplitude and phase shift of an induced secondary magnetic field. The secondary magnetic field is created by subsurface conductive materials behaving as an inductor as the primary magnetic field is passed through them.

The Geonics EM-61 system used in this investigation operates within these principles. However, the EM-61 TDEM system can discriminate between moderately conductive earth materials and very conductive metallic targets. The EM-61 consists of a portable coincident loop time domain transmitter and receiver with a 0.5-meter by 1.0-meter coil system. The EM-61 generates 150 pulses per second and measures the response from the ground after transmission or between pulses. The secondary EM responses from metallic targets are of longer duration than those created by conductive earth materials. By recording the later time EM arrivals, only the response from metallic targets is measured, rather than the field generated by the earth material.

#### **4.1.3 Field Procedures**

The GPR and TDEM field investigation was performed on December 18, 2013, within the accessible portions of the existing and proposed easements and ROWs in the western portion of Parcel 004, as shown in Figure 3. A GPR system time range setting of 90 nanoseconds (ns) was used during the entire investigation. This range was determined after a series of test lines were conducted to evaluate the GPR response in the local geologic section. Interpretation of the GPR data was conducted in the field and any

potential anomalies were marked in the field. GPR data processing typically included band pass filtering, background removal, horizontal smoothing, and gain adjustments. TDEM was also used to scan the project site. Any electromagnetic anomalies indicative of buried metallic objects were marked in the field.

It should be noted that NC 811 underground utility locations had been performed within the investigation area at Parcel 004 prior to the initiation of the preliminary site assessment field activities at the site and were marked with paint.

The TDEM and GPR data did not indicate the presence of "Known USTs," "Probable USTs," or "Possible USTs" in the subsurface of the investigation area. Additionally, there was no visual evidence of USTs in the investigation area. EM-61 signatures were identified within the investigation area, as shown mostly in red on Figure 3, which were the predominantly the result of parked cars and a metal canopy located in the investigation area.

#### **4.2 Subsurface Soil Investigation**

To evaluate the presence or absence of impact to subsurface soil by constituents of concern, GEL collected soil samples from four subsurface soil borings at Parcel 004, S4-1 through S4-4, on December 18, 2013 for analysis of total petroleum hydrocarbon indicator parameters. The soil borings were constructed within accessible portions of the existing and proposed easements and NCDOT ROWs within the designated investigation area at Parcel 004 (Figure 2), as shown on Figure 4 and in Photographs 1 through 4 in Appendix I. The northing and easting coordinates for the boring locations are listed in the table below.

**Summary of Location Data and PID Measurements  
for Soil Samples Collected for Analysis at Parcel 004**

Soil Boring	Depth Interval of Soil Sample Collected for Analysis (feet bgs)	PID Reading (ppm)	Northing	Easting
S4-1	7-8	0.0	595686.147	754191.227
S4-2	7-8	0.0	595616.559	754210.083
S4-3	5-6	0.0	595726.747	754224.175
S4-4	7-8	0.0	595792.637	754244.783

Notes:

- 1) Northings and Eastings are based on the NC State Plane Coordinate System
- 2) bgs = below ground surface
- 3) PID = photoionization detector
- 4) ppm = parts per million

All borings were advanced to a total depth of 8 feet below ground surface (bgs), except boring S4-3, which was terminated at 6 feet bgs due to probe refusal when bedrock was encountered. Soil samples were collected at depths of 3-4 feet and 7-8 feet from borings S4-1, S4-2, and S4-4, from depths of 3-4 feet and 5-6 feet from boring S4-3. All soil samples were inspected for indications of impact by constituents of concern, including petroleum hydrocarbons, such as odors, discoloration, or visible sheen. This sampling was accomplished using direct push technology (DPT) provided by Regional Probing Services. Soil boring lithologic logs are attached as Appendix II of this document. Groundwater was not encountered in any borings.

The soil samples were screened for the presence of organic vapors using a portable photoionization detector (PID). The PID measures the concentration of organic compounds in the vapor space above a soil sample resulting from volatilization of organic compounds contained in the soil. To screen the soils, each sample was placed in a clean, resealable polyethylene bag. The bag was sealed, and the sample was allowed to equilibrate for approximately 5 minutes, after which time a small opening was made in the bag. The probe of the PID was then inserted into the bag, and the airspace above the soil was screened for organic vapors.

No organic vapor concentrations were measured in any of the soil screening samples collected from the four borings. Therefore, to assess the subsurface soil quality, soil samples collected from the 7 to 8-foot depth interval in borings S4-1, S4-2, and S4-4, the

soil sample from the 5 to 6-foot depth interval in boring S4-3 were designated for analysis. One-half of each designated soil sample was submitted to each of two separate laboratories for analysis.

Following completion of the soil sampling activities, all borings were abandoned by filling the boreholes with soil cuttings and hydrated bentonite. Splits for each soil sample were submitted to QROS' analytical laboratory affiliate (KB Labs, Inc.) in Gainesville, Florida for analysis of petroleum hydrocarbon constituents using Ultra-violet Fluorescence Spectrometry. One of the samples, S4-2, was also analyzed for hydrocarbon constituents by Pace Analytical Services, Inc. (Pace) in Huntersville, North Carolina. To assess the potential soil impact from auto repair and auto body shop operations currently being conducted at the site, splits of the soil samples from borings S4-1, S4-3, and S4-4 were submitted to Pace for analysis of volatile organic compounds (VOCs) using EPA Method 8260B and semi-volatile organic compounds (SVOCs) using EPA Method 8270D. The analytical results are included on the Certificates of Analysis provided in Appendix III, and a summary of the analytical results is presented in Table 1.

The QROS and Pace results indicate GRO was not detected in any of the soil samples, but DRO was detected by QROS in the soil sample collected from boring S4-3 at a level of 62.8 milligrams per kilogram (mg/kg), which exceeds the NCDENR action level for DRO (10 mg/kg). In addition, the QROS results indicated a detected benzo(a)pyrene concentration of 0.37 mg/kg, which exceeds the NCDENR Maximum Soil Contaminant Concentration (MSCC) of 0.088 mg/kg for benzo(a)pyrene. In addition, concentrations of benzo(a)anthracene (0.472 mg/kg) and benzo(a)pyrene (0.69 mg/kg) detected in sample S4-3 by Pace exceeded the NCDENR MSCCs for the two SVOCs (0.35 mg/kg and 0.088 mg/kg, respectively). Seven other SVOCs were also detected in sample S4-3, but at levels below their respective MSCCs. One VOC, acetone, was detected in samples S4-3 and S4-4 at levels of 0.187 mg/kg and 0.104 mg/kg, respectively, which are significantly below the NCDENR MSCC of 24 mg/kg for acetone.

It is estimated that there is an approximate total volume of 83 cubic yards of impacted soil (DRO >10 mg/kg) in the vicinity of boring S4-3, based on the following assumed area within the investigation area (as shown on Figure 4) and assumed depth of impacted soil:

Boring S4-3 Area

- 375 square feet x 6 feet = 83 cubic yards

## 5.0 Conclusions and Recommendations

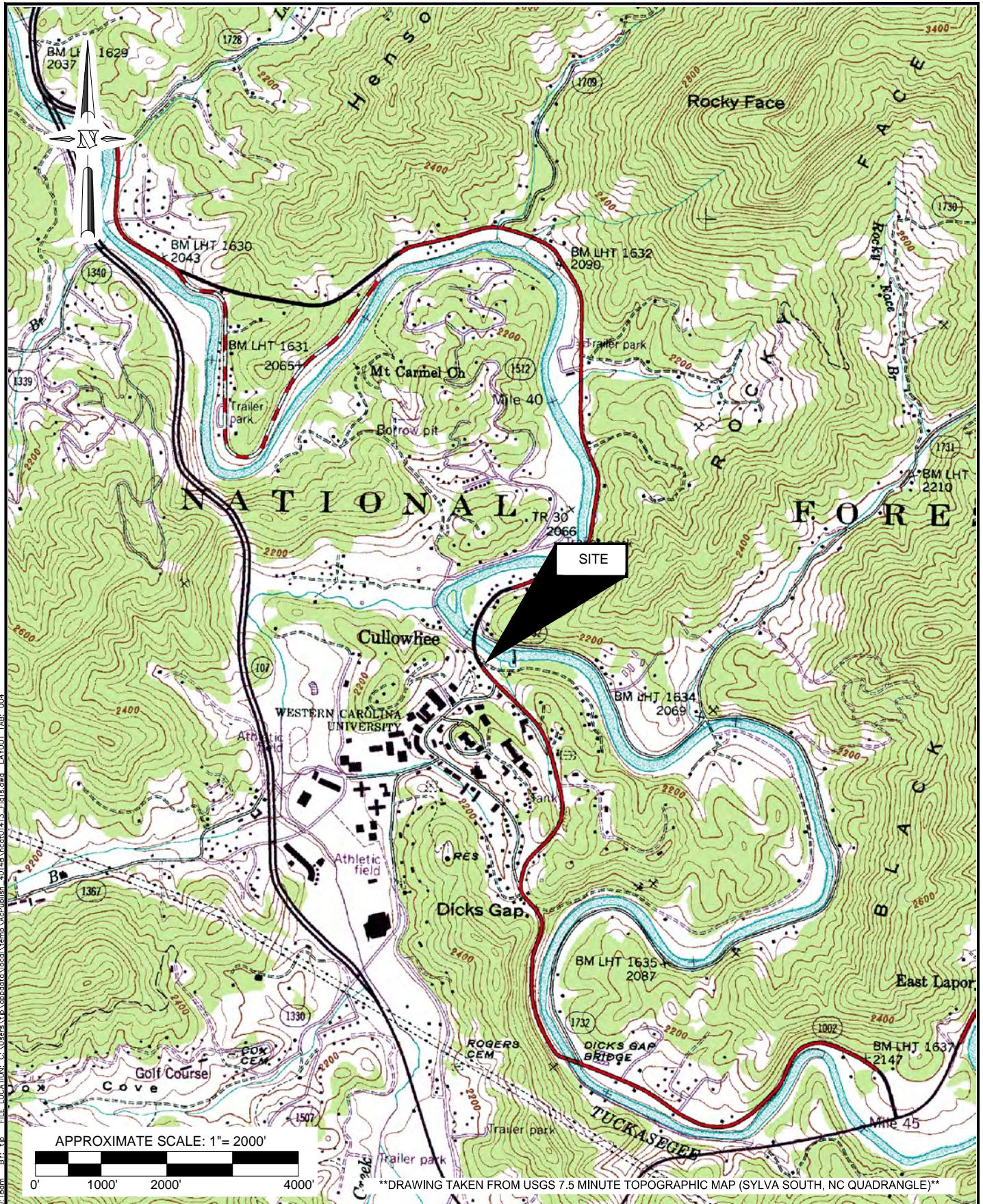
GEL performed a preliminary site assessment within the accessible portions of the existing and proposed easements and NCDOT ROWs at Parcel 004 that included a geophysical investigation and the collection and analysis of soil samples. No subsurface anomalies indicative of suspected or known USTs were identified within the investigation area.

Soil samples were collected for analysis from four borings constructed within the investigation area and analyzed for petroleum hydrocarbon constituents. Three of the samples were also analyzed for VOCs and SVOCs. GRO was not detected in any of the collected soil samples analyzed for the respective hydrocarbon constituents. DRO was detected at a level exceeding the NCDENR DRO Action Level in the soil sample collected from boring S4-3. In addition, two SVOCs, benzo(a)anthracene and benzo(a)pyrene, were detected in sample S4-3 at levels exceeding their respective NCDENR MSCCs.

Based on the detection of an elevated DRO concentration in the soil sample, it is estimated that there is an approximate total volume of 83 cubic yards of impacted soil (DRO >10 mg/kg) in the vicinity of boring S4-3.

No additional environmental investigation of the soil at the site by NCDOT is recommended at this time. However, it is recommended that soils excavated in the vicinity of boring S4-3 as part of planned construction activities by NCDOT be handled appropriately and further characterized for petroleum constituents, as needed.

## **FIGURES**



APPROXIMATE SCALE: 1"= 2000'

1000' 2000' 4000'

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problem solved

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PROJECT: ncdt01413

**PRELIMINARY SITE ASSESSMENT  
PARCEL 004  
CULLOWHEE, JACKSON COUNTY,  
NORTH CAROLINA  
TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1**

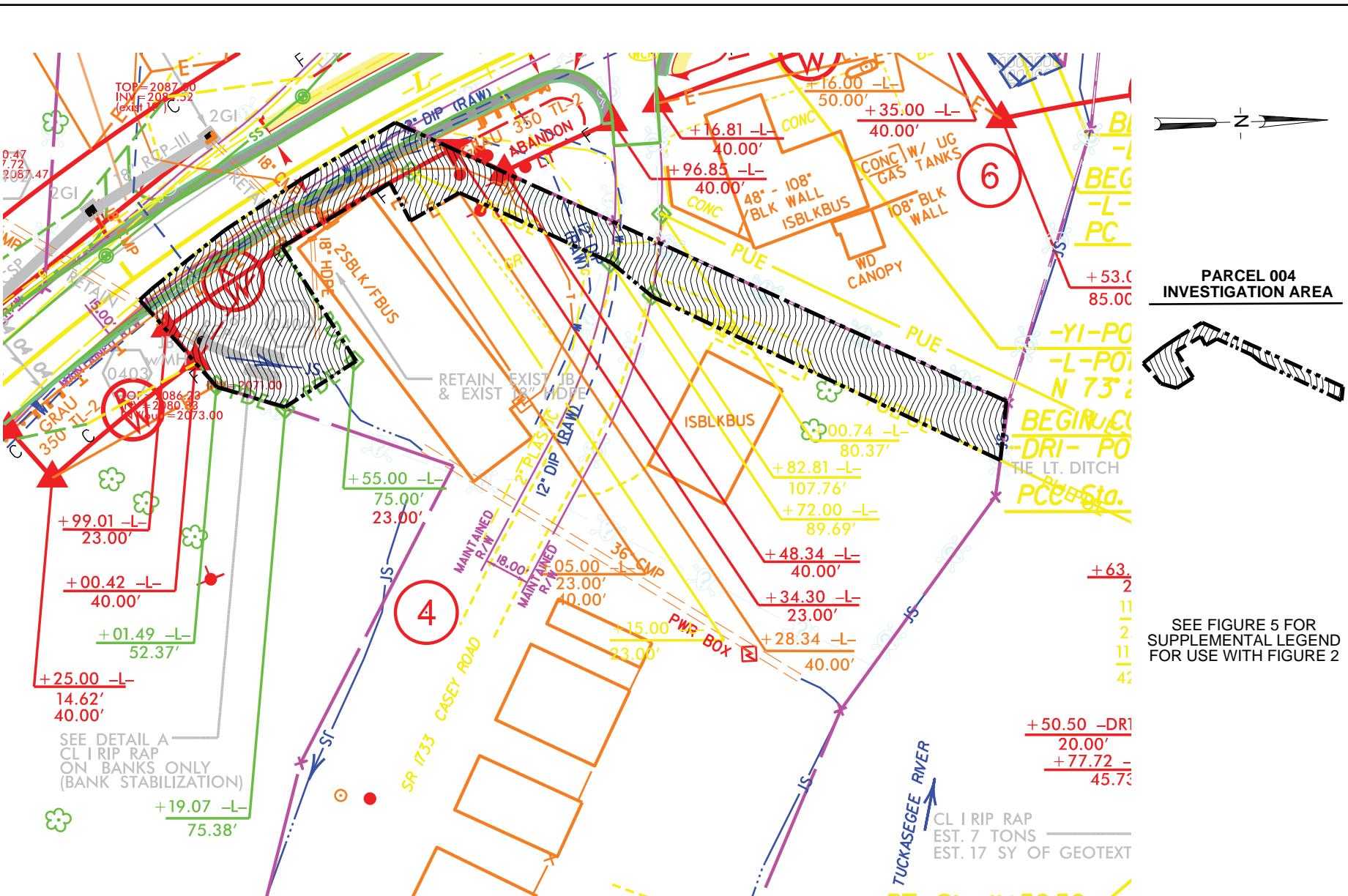
## SITE LOCATION MAP

## FIGURE

1

DATE: February 3, 2014

DRAWN: TJP APPRV: ADE



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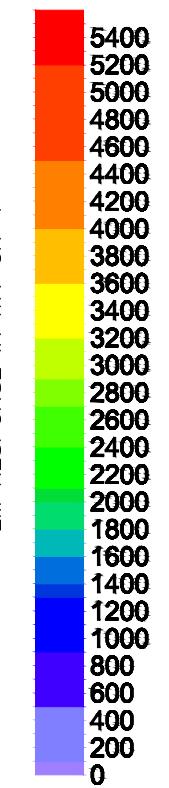
**GEL**

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DATE: April 2, 2014

DRAWN BY: ADE

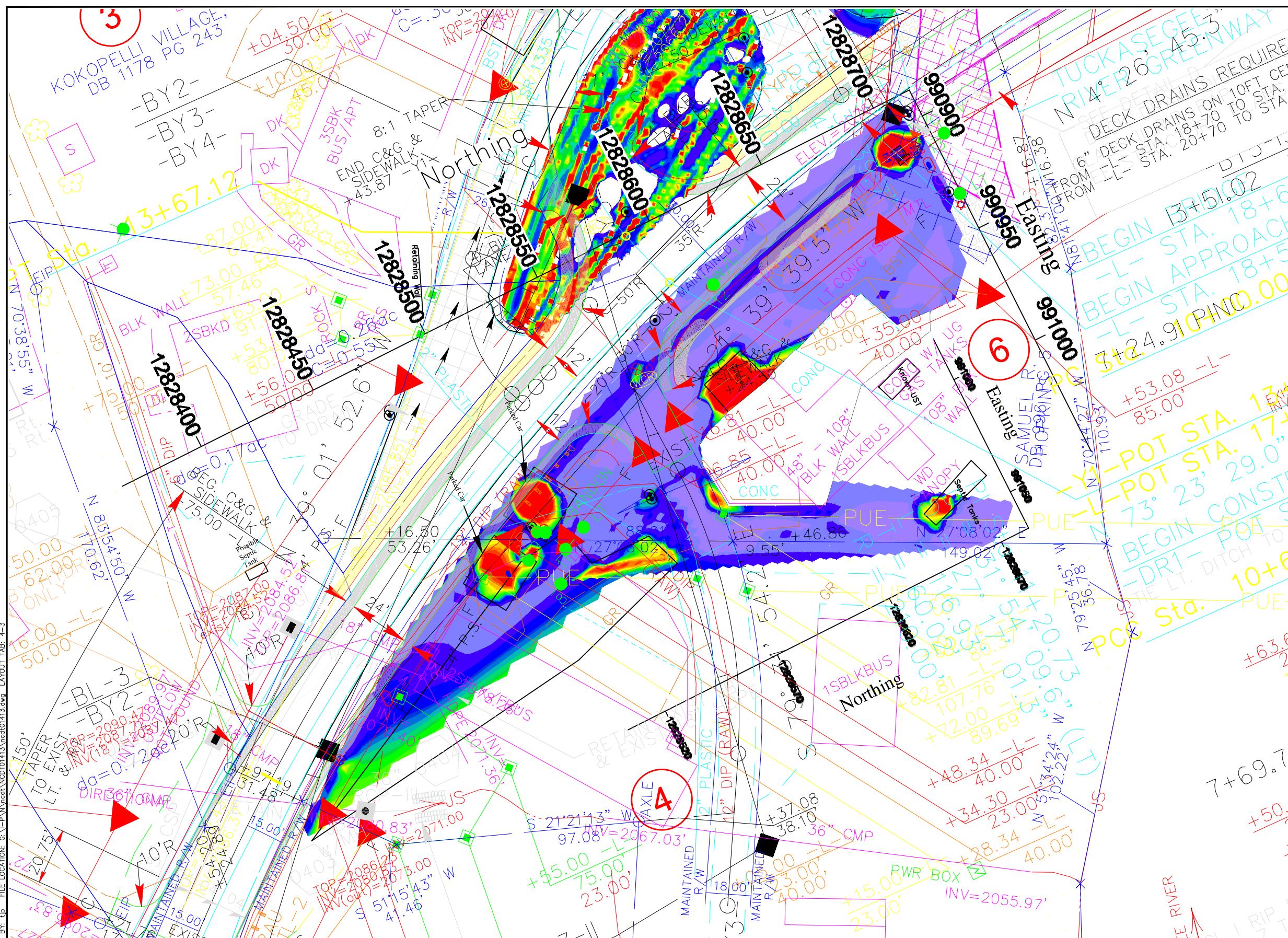
SEE FIGURE 5 FOR  
SUPPLEMENTAL LEGEND  
FOR USE WITH FIGURE 3



#### NOTES

1. UNDERGROUND FEATURES WERE LOCATED USING VISUAL EVIDENCE, GROUND PENETRATING RADAR (GPR), AND TIME DOMAIN ELECTROMAGNETIC (TDEM) METHODS. OTHER BURIED UTILITIES AND STRUCTURES MAY EXIST BUT WERE NOT DETECTED DUE TO LIMITATIONS OF THE GEOPHYSICAL METHODS, SITE ACCESS, AND/OR HIGH TARGET CONGESTION. THEREFORE, DUE CAUTION SHOULD BE USED WHEN PERFORMING SUBSURFACE EXCAVATION ACTIVITIES WHERE POTENTIAL CONFLICTS EXIST. GEL ENGINEERING OF NC, INC. IS NOT RESPONSIBLE FOR DAMAGES THAT MAY OCCUR. IDENTIFYING THE LOCATION OF SOME UTILITIES MAY ONLY BE POSSIBLE WITH VACUUM OR OTHER EXCAVATION METHODS.
2. FIELD SURVEY CONDUCTED ON 12.16-19.13.
3. DATA FROM GEONICS, LTD. EM-61 MKII AND MALA GEOSCIENCE GROUND PENETRATING RADAR.
4. BASE MAP PROVIDED BY NCDOT. GEL ENGINEERING OF NC IS NOT LIABLE FOR ACCURACY.

APPROXIMATE SCALE: 1"= 40'



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PROJECT: ncdt01413

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NORTH CAROLINA  
TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1

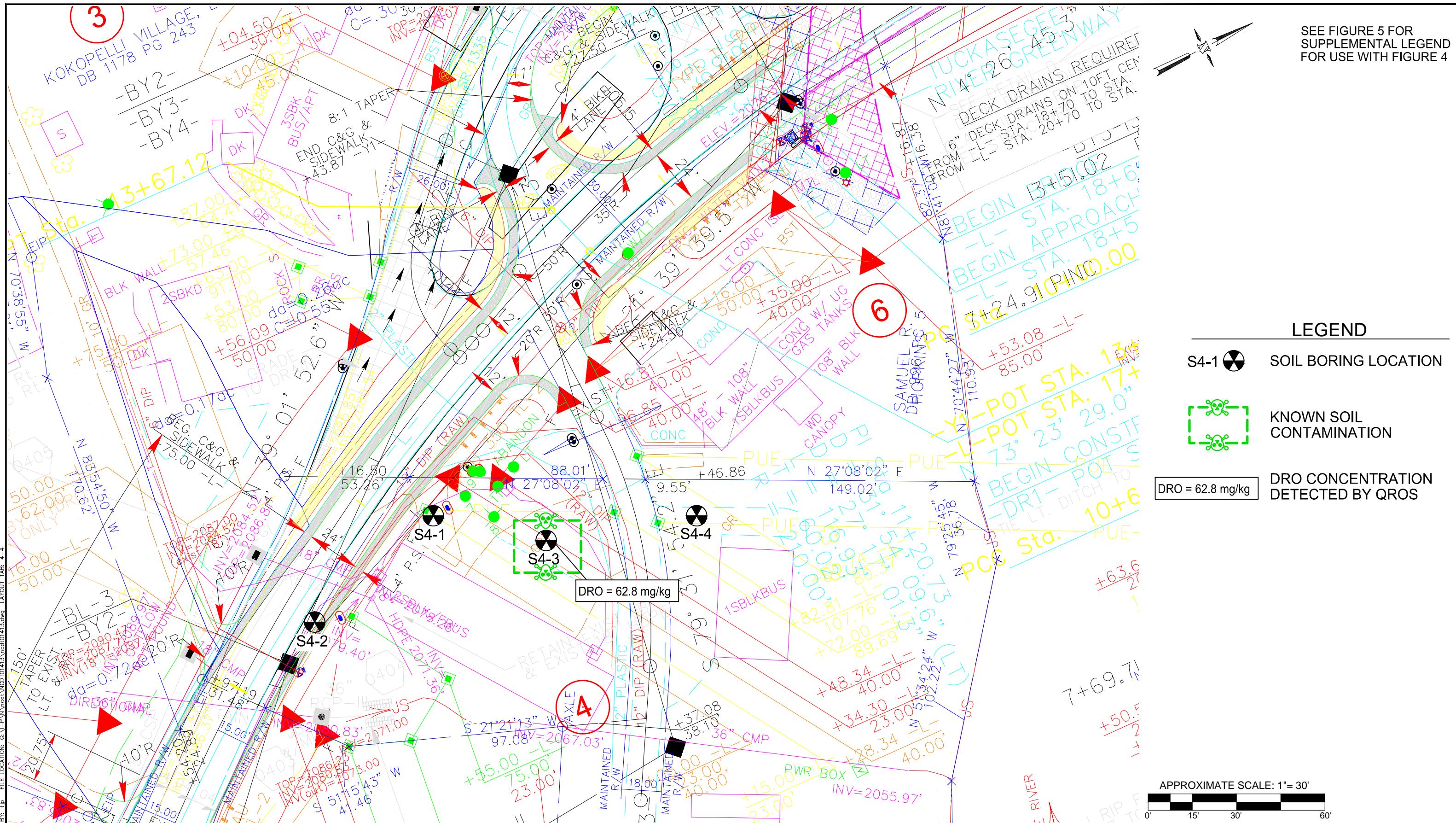
DATE: April 24, 2014

SITE MAP SHOWING RESULTS OF  
GEOPHYSICAL INVESTIGATION

FIGURE  
3

DRAWN BY: TJP

APPRV. BY: ADE



84/5/11  
Note: Not to Scale

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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. SHEET NO.  
P-50C 4

## CONVENTIONAL PLAN SHEET SYMBOLS

### BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin
- Property Corner
- Property Monument
- Parcel/Sequence Number
- Existing Fence Line
- 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: Area or Site
- Potential Soil Contamination: Area or Site

### BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or UG 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
- 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 RW Marker
- Proposed Control of Access Line with Concrete CA 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 Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement
- Proposed Permanent Easement with Iron Pin and Cap Marker

### ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal
- Single Tree
- Single Shrub
- Hedge
- Woods Line

### VEGETATION:

- 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
  - Paved Ditch Gutter
  - Storm Sewer Manhole
  - Storm Sewer

### UTILITIES:

- POWER:
  - Existing Power Pole
  - Proposed Power Pole
  - Existing Joint Use Pole
  - Proposed Joint Use Pole
  - Power Manhole
  - Power Line Tower
  - Power Transformer
  - UG Power Cable Hand Hole
  - H-Frame Pole
  - Recorded UG Power Line
  - Designated UG Power Line (S.U.E.)

### TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Booth
- Telephone Pedestal
- Telephone Cell Tower
- UG Telephone Cable Hand Hole
- Recorded UG Telephone Cable
- Designated UG Telephone Cable (S.U.E.)
- Recorded UG Telephone Conduit
- Designated UG Telephone Conduit (S.U.E.)
- Recorded UG Fiber Optics Cable
- Designated UG Fiber Optics Cable (S.U.E.)

### WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- Recorded UG Water Line
- Designated UG Water Line (S.U.E.)
- Above Ground Water Line

### TV:

- TV Satellite Dish
- TV Pedestal
- TV Tower
- UG TV Cable Hand Hole
- Recorded UG TV Cable
- Designated UG TV Cable (S.U.E.)
- Recorded UG Fiber Optic Cable
- Designated UG Fiber Optic Cable (S.U.E.)

### GAS:

- Gas Valve
- Gas Meter
- Recorded UG Gas Line
- Designated UG Gas Line (S.U.E.)
- Above Ground Gas Line

### SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- UG 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 UG Line
- UG Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- AG Tank; Water, Gas, Oil
- Geoenvironmental Boring
- UG Test Hole (S.U.E.)
- Abandoned According to Utility Records
- End of Information

NOTE: LEGEND WAS PROVIDED BY NCDOT

GEL ENGINEERING of NC, Inc. <i>an Affiliate of THE GEL GROUP, Inc.</i>	<b>GEL</b> Post Office Box 14262 Research Triangle Park, NC 27709 (919) 544-1100	PROJECT: nc01413	SUPPLEMENTAL LEGEND FOR USE WITH FIGURES 2, 3, AND 4	FIGURE 5
		PRELIMINARY SITE ASSESSMENT PARCEL 004 CULLOWHEE, JACKSON COUNTY, NORTH CAROLINA TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1		
DATE: April 2, 2014		DRAWN BY: ADE		

## **TABLES**

**TABLE 1**  
**SUMMARY OF ANALYTICAL RESULTS FOR COLLECTED SOIL SAMPLES**

Preliminary Site Assessment

Parcel 004, 25 Casey Road

Cullowhee, Jackson County, North Carolina

State Project No. B-4159, WBS Element #33507.1.1

Sample ID	Diesel Range Organics (DRO)		Gasoline Range Organics (GRO)		QROS Analytical Results				
	QROS	Pace	QROS	Pace	BTEX (C6-C9)	TPH (C5-C35)	Total Aromatics (C10-C35)	16 EPA PAHs	Benzo(a)pyrene
S-4-1	<0.6	NA	<0.6	NA	<0.6	<0.6	<0.57	<0.06	<0.028
S-4-2	7	<5.9	<0.6	<5.7	<0.6	7	5.27	0.44	0.06
S-4-3	62.8	NA	<2.4	NA	<2.4	62.8	48.6	2.29	0.37
S-4-4	5.2	NA	<0.5	NA	<0.5	5.2	3.47	0.28	<0.026
<i>NCDENR Action Level</i>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>					
<i>NCDENR MSCC</i>									<b>0.088</b>

Sample ID	Pace Detected SVOCs									Pace Detected VOCs
	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Pyrene	
S-4-1	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	<0.0848
S-4-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-4-3	0.472	0.69	0.63	0.61	0.588	0.642	0.919	0.528	0.772	0.187
S-4-4	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	0.104
<i>NCDENR MSCC</i>	<b>0.35</b>	<b>0.088</b>	<b>0.88</b>	<b>469</b>	<b>9</b>	<b>39</b>	<b>290</b>	<b>0.88</b>	<b>270</b>	<b>24</b>

1) All reported values are shown in milligrams per kilogram (mg/kg).

2) MSCC = NCDENR's Maximum Soil Contaminant Concentration Levels (April 2012); MSCC shown is the lowest of established Residential Soil Cleanup Levels and Soil-to-Groundwater Maximum Contaminant Concentration shown in the NCDENR MSCC Table for any given constituent.

3) NA = Not analyzed.

4) Reported values exceeding corresponding NCDENR Action Levels or MSCCs are highlighted in yellow.

## **APPENDICES**

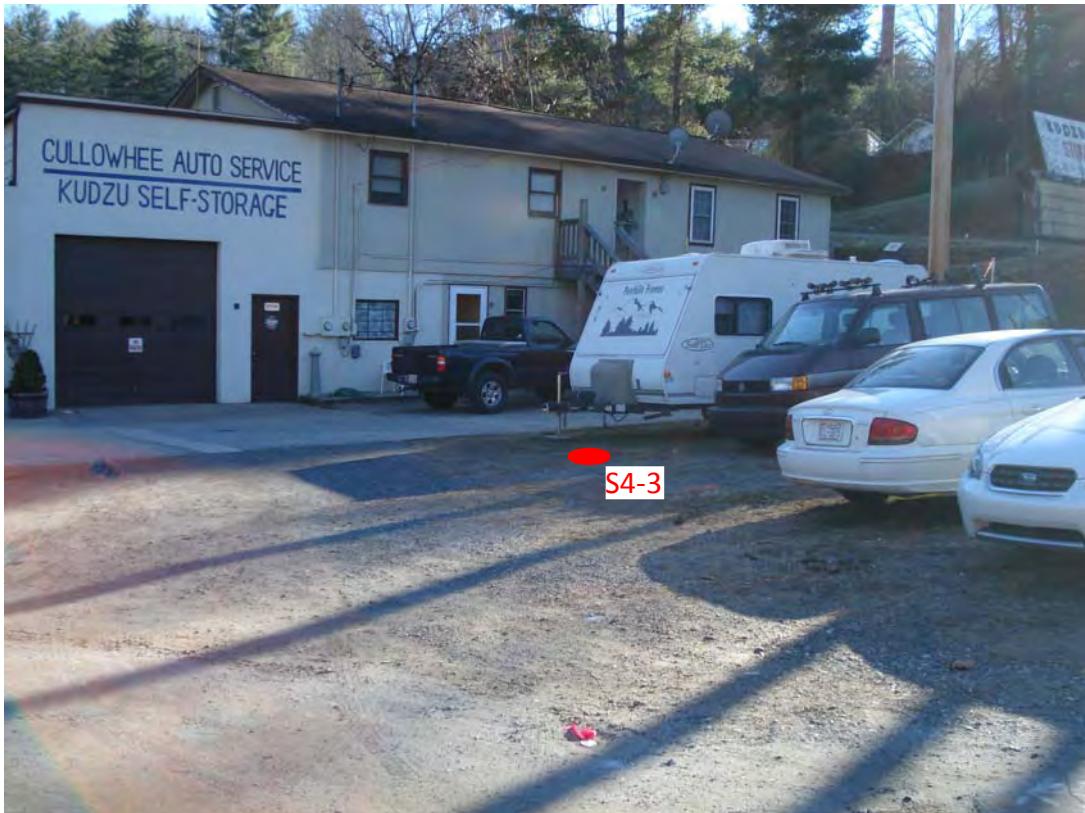
**APPENDIX I**  
**PHOTOGRAPHS**



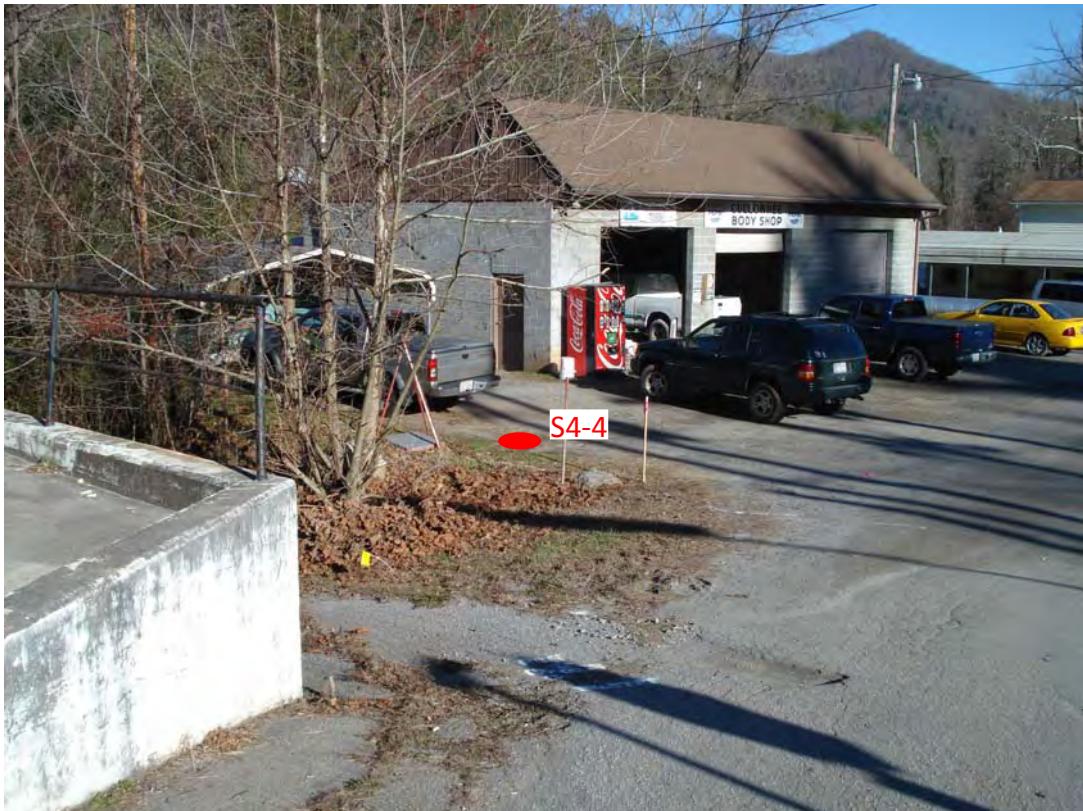
Photograph 1: View looking southeast from Old Cullowhee Road at soil boring location S4-1 at Parcel 004.



Photograph 2: View looking northeast from Old Cullowhee Road at soil boring location S4-2 at Parcel 004.



Photograph 3: View looking west at soil boring location S4-3 at Parcel 004.



Photograph 4: View looking east from at soil boring location S4-4 at Parcel 004.

**APPENDIX II**

**SOIL BORING LITHOLOGIC LOGS**

## SOIL BORING LOG

Boring/Well No.: **S4-1**

Date Started: 12/18/13

Date Completed: 12/18/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	0.0	Red Brown Sandy Silt; Moist; Weathered rock/Saprolite 3'-4'	ML
2	4.0' – 8.0'	--	0.0	Saprolite	
3					
4				Total depth = 8 feet below land surface	
5					
6					
7					
8					
9					
10					

Notes:

- 1) 4-foot continuous cores using DPT.
- 2) PID readings shown are for discrete samples collected at depth intervals of 3'– 4', and 7'– 8'

## SOIL BORING LOG

Boring/Well No.: **S4-2**

Date Started: 12/19/13

Date Completed: 12/19/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	0.0	Red Brown Sandy Silt with Gravel; Moist	ML
2	4.0' – 8.0'	--	0.0	Saprolite	
3					
4				Total depth = 8 feet below land surface	
5					
6					
7					
8					
9					
10					

Notes:

- 1) 4-foot continuous cores using DPT.
- 2) PID readings shown are for discrete samples collected at depth intervals of 3'– 4', and 7'– 8'

## SOIL BORING LOG

Boring/Well No.: **S4-3**

Date Started: 12/19/13

Date Completed: 12/19/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	0.0	Red Sandy Silt with Gravel; Moist; weathered rock throughout	ML
2	4.0' – 6.0'	--	0.0	Red Sandy Silt with Gravel; Moist; Gneiss at 5'; Refusal at 6'	ML
3					
4				Total depth = 6 feet below land surface	
5					
6					
7					
8					
9					
10					

Notes:

- 1) 4-foot continuous cores using DPT.
- 2) PID readings shown are for discrete samples collected at depth intervals of 3'– 4', and 5'– 6'

## SOIL BORING LOG

Boring/Well No.: **S4-4**

Date Started: 12/19/13

Date Completed: 12/19/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	0.0	Red Silty Clay; Tight; Micaceous; Moist	CL
2	4.0' – 8.0'	--	0.0	Gray Tan Sandy Silt; Moist	ML
3					
4				Total depth = 8 feet below land surface	
5					
6					
7					
8					
9					
10					

Notes:

- 1) 4-foot continuous cores using DPT.
- 2) PID readings shown are for discrete samples collected at depth intervals of 3'– 4', and 7'– 8'

**APPENDIX III**

**CERTIFICATES OF ANALYSIS AND  
CHAIN OF CUSTODY RECORD FOR SOIL SAMPLES**

## **KB Labs, Inc. Results**



## Hydrocarbon Analysis Results

Client: GEL

Address:

Samples taken

DECEMBER 17/18, 2013

Samples extracted

DECEMBER 17/18, 2013

Samples analysed

Friday, December 20, 2013

Contact: ANDREW EYER

Operator

CSB

Project: GEL B-4159 CULLOWHEE NC

Matrix	Sample ID	Dilution used	BTEX	GRO	DRO	TPH	Total Aromatics	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
			(C6 - C9)	(C5 - C10)	(C10 - C35)	(C5 - C35)	(C10-C35)			% light	% mid	% heavy	
s	S-4-1	11.4	<0.6	<0.6	<0.6	<0.6	< 0.57	< 0.06	< 0.028	0	0	100	Match not possible
s	S-6-4	44.8	<2.2	<2.2	60.5	60.5	44.64	1.11	< 0.112	54.6	41.1	4.3	V.Deg.PHC 98%
s	S-6-5	11.7	<0.6	<0.6	<0.6	<0.6	< 0.58	< 0.06	< 0.029	0	80.6	19.4	Deg.Fuel 27.2%
s	S-6-6 (Low Volume)	62.0	<3.1	<3.1	49.6	49.6	32.82	1.58	< 0.155	78.8	19.4	1.8	V.Deg.PHC 97.6%
s	S-6-7 reanalyze	1475.1	<37	<37	<37	<37	< 74	<7	<1	0	59.4	40.6	PAH
s	S-6-8	10.6	<0.5	<0.5	4.1	4.1	1.44	< 0.05	< 0.026	29.8	47.6	22.5	Degraded Fuel (est) 77.5%
s	S-6-9	11.6	<0.6	<0.6	<0.6	<0.6	< 0.58	< 0.06	< 0.029	0	0	100	Particulate
Initial Calibrator QC check			Fail		Low Range Calibrator Final check					Low		0.057	
					High Range Calibrator Final check					High		1.852	

Results generated by a QED HC-1 analyser

Fingerprints provide a tentative hydrocarbon identification based on operator selected library matches

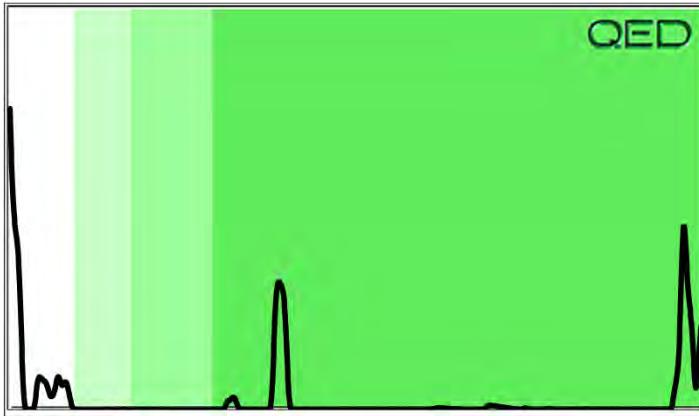
Concentration values in mg/kg for soil samples and mg/L for water samples  
Fingerprint match abbreviations Est = Specific calibrator not used, result estimated (PFM)= Poor library fingerprint match

Soil values are not corrected for moisture or stone content

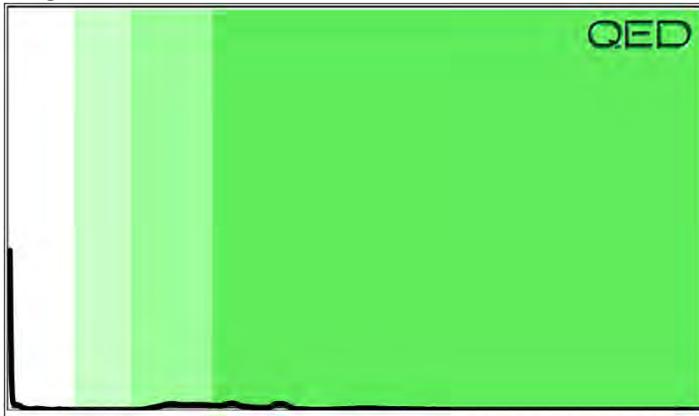
(SBS)= site specific background subtracted (LBS)= Library background subtracted

% = match confidence

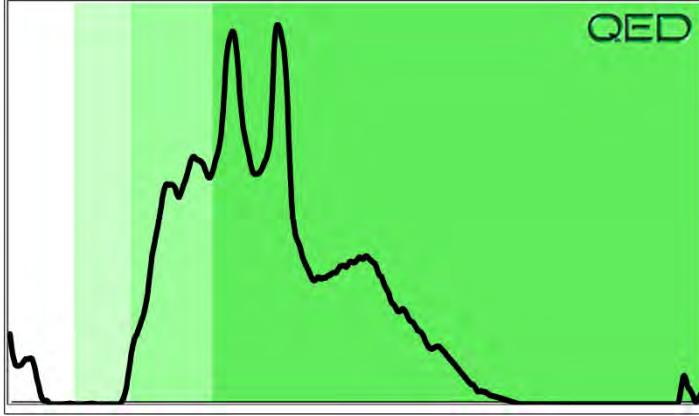
Match not possible



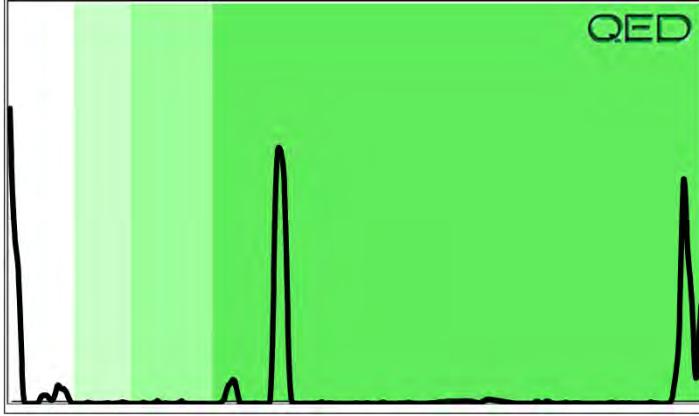
Deg.Fuel 27.2%



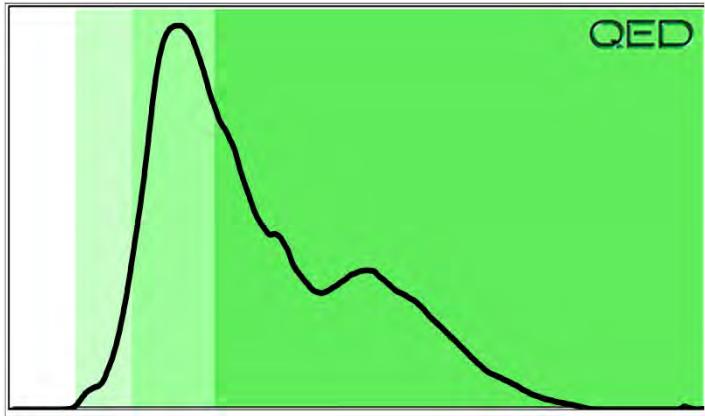
PAH



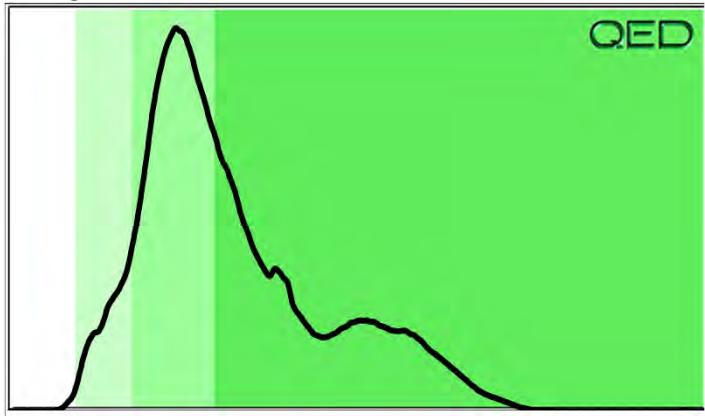
Particulate



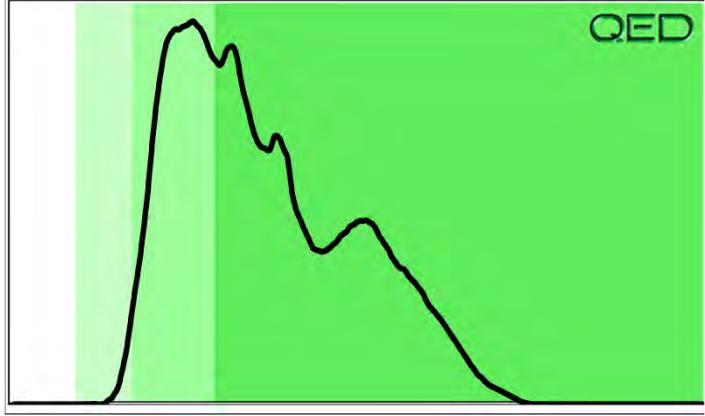
V.Deg.PHC 98%



V.Deg.PHC 97.6%



Degraded Fuel (est) 77.5%





## Hydrocarbon Analysis Results

**Client:** GEL

**Address:**

## Samples taken

Thursday, December 19, 2013

**Contact:** Andrew Eyer

## Operator

CSB

**Project:** B-4159 Cullowhee, NC

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	S-4-4	10.6	<0.5	<0.5	5.2	5.2	3.47	0.28	< 0.026	79	19.6	1.4	V.Deg.PHC 92%
s	S-4-3	48.7	<2.4	<2.4	62.8	62.8	48.6	2.29	0.37	45	36.8	18.2	V.Deg.PHC 73.4%
s	S-4-2	11.5	<0.6	<0.6	7	7	5.27	0.44	0.06	34.9	32.2	32.9	V.Deg.PHC 56.2%
s	S-5-1	19.8	<1	<1	28.3	28.3	20.98	0.83	0.11	53.6	30.1	16.4	V.Deg.PHC 77.2%
s	S-5-2	10.8	<0.5	<0.5	<0.5	<0.5	< 0.54	< 0.05	< 0.027	0	47.4	52.6	Deg.Fuel 695.8%
s	S-5-3	11.1	<0.6	<0.6	<0.6	<0.6	< 0.56	< 0.06	< 0.028	0	0	100	Match not possible
s	S-3-1	9.1	<0.5	<0.5	<0.5	<0.5	< 0.45	< 0.05	< 0.023	0	0	100	Match not possible
s	S-3-2	11.0	<0.6	<0.6	6.5	6.5	2.4	< 0.06	< 0.028	46.5	40.8	12.6	Degraded Fuel (est) 87%
s	S-3-3	11.4	<0.6	<0.6	18.3	18.3	13.38	0.31	< 0.028	56.8	39.8	3.5	V.Deg.PHC 99.2%
s	S-3-4	10.8	<0.5	<0.5	<0.5	<0.5	< 0.54	< 0.05	< 0.027	0	0	100	Match not possible

Results generated by a QED HC-1 analyser

Fingerprints provide a tentative hydrocarbon identification based on operator selected library matches.

Concentration values in mg/kg for soil samples and mg/L for water samples.

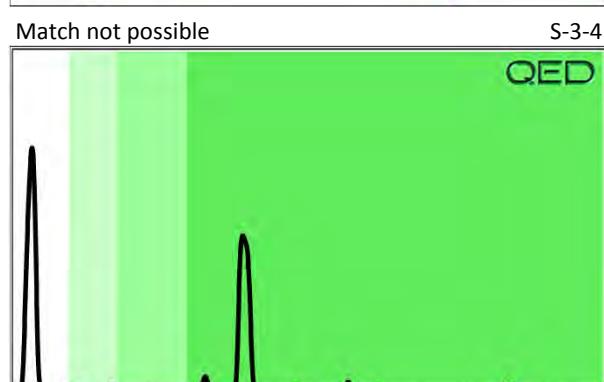
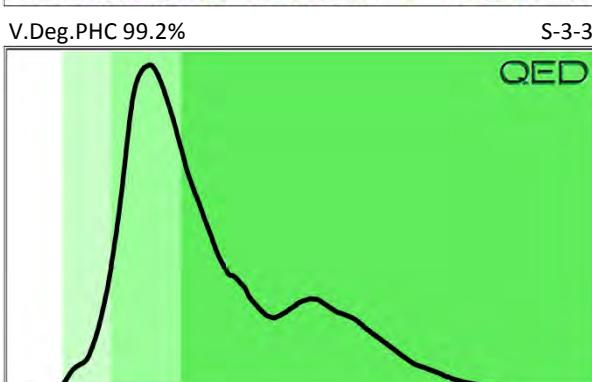
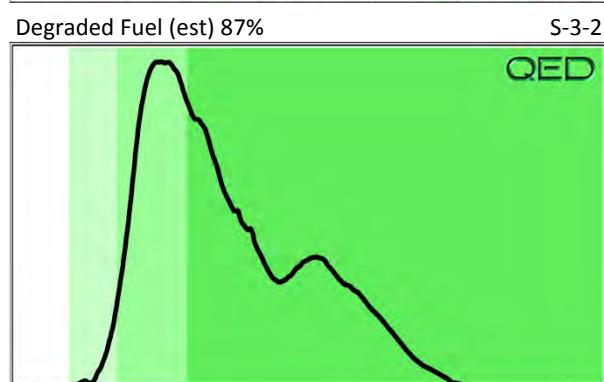
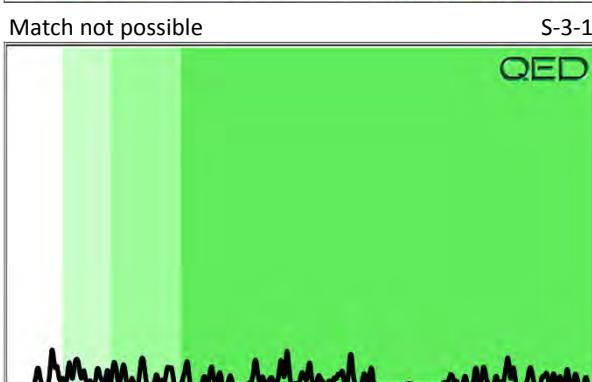
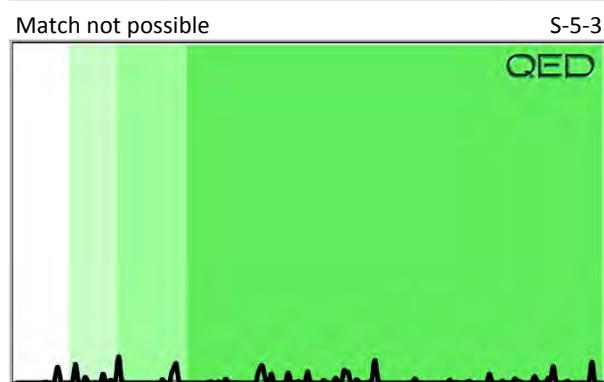
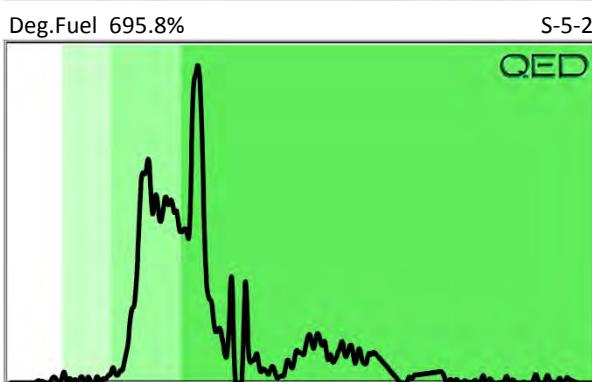
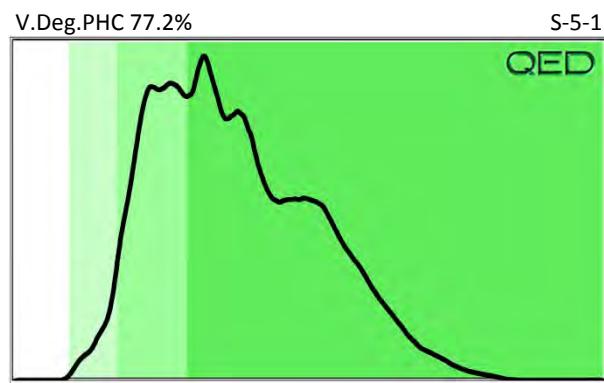
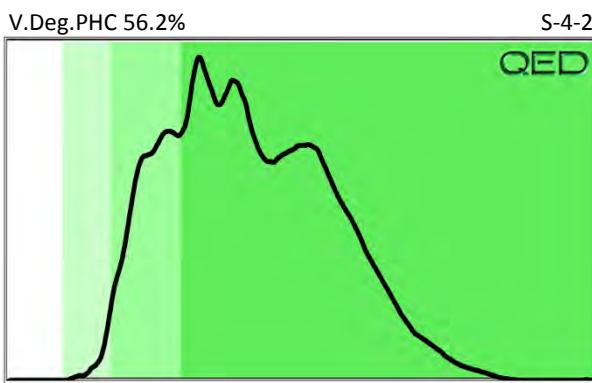
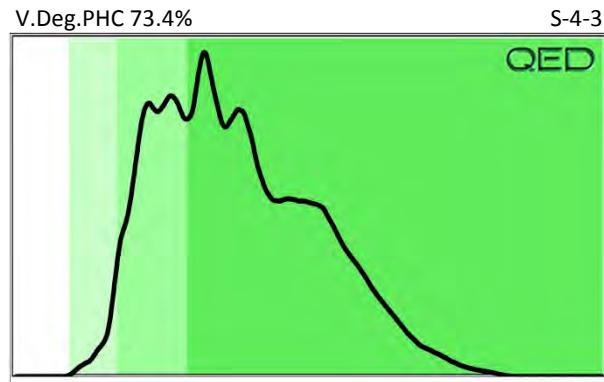
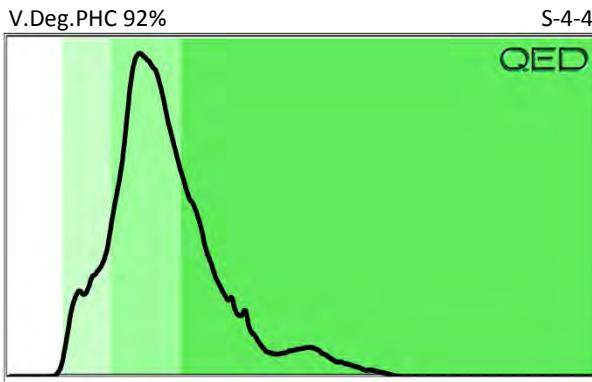
## Fingerprint match abbreviations

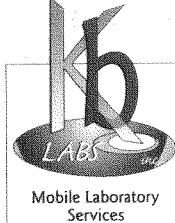
Est = Specific calibrator not used, result estimated (PFM)= Poor library fingerprint match

Soil values are not corrected for moisture or stone content

(SBS)= site specific background subtracted (LBS)= Library background subtracted

% = match confidence





# CHAIN-OF-CUSTODY RECORD

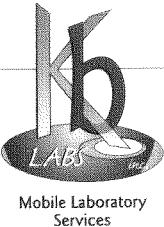
6821 SW Archer Road  
Gainesville, FL 32608  
TEL (352) 367-0073 · FAX (352) 378-6491

6701 Conference Drive  
Raleigh, NC 27607  
TEL (352) 538-6507

MOBILE UNIT #

CLIENT NAME	PROJECT NAME & ADDRESS						SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION		
	SAMPLERS	CONTACT PERSON	BATCH # (Lab Use Only)							C Chilled	H HCL	O Other (see Remarks)
SAMPLE FIELD ID.\ NUMBER	DATE SAMPLED	TIME SAMPLED	COMP.	GRAB	DATE REC'D	TIME REC'D	STATION LOCATION / No. Weight	COMMENT / SAMPLE PRE FIX				
S-12-3	12/17/13	1310		X			11.77	S	1	✓		48 hr TA
S-12-5		1509		X			13.6	S	1	✓		48 hr TA
S-12-6		1540		X			11.45	S	1	✓		48 hr TA
S-12-7		1555		X			11.7	S	1	✓		48 hr TA
S-12-8		1610		X			11.59	S	1	✓		48 hr TA
S-12-9 Low volume		1625		X			7.17(10)	S	1	✓		48hr TA
S-8-1 Low volume		1635		X			(10)	S	1	✓		48hr TA
S-8-2	12/18/13	0855		X			14.06	S	1	✓		48hr TA
S-8-5 Low volume		0925		X			(10)	S	1	✓		48hr TA
S-8-4		1000		X			10.49	S	1	✓		48hr TA
S-8-3 Low volume		1025		X			(10)	S	1	✓		48hr TA
S-6-1 Low volume		1150		X			(10)	S	1	✓		48hr TA
S-6-2		1220		X			12.2	S	1	✓		48hr TA
S-6-3 Low volume		1235		X			(10)	S	1	✓		48hr TA
S-4-1		1505		X			12.32	S	1	✓		48hr TA
Precleaned Containers Relinquished by: (Signature) <i>Stacy D Jr</i>	Date / Time 12/19/13 1400	Received by: (Signature)	Date / Time	Remarks and Observations								
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time 12/20/13									

Matrix Types    S Soil    SW Surface Water    GW Ground Water    SG Soil Gas



# CHAIN-OF-CUSTODY RECORD

2

6821 SW Archer Road  
Gainesville, FL 32608  
TEL (352) 367-0073 · FAX (352) 378-6491

6701 Conference Drive  
Raleigh, NC 27607  
TEL (352) 538-6507

**MOBILE UNIT #**

CLIENT NAME	PROJECT NAME & ADDRESS						SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION					
	SAMPLERS	CONTACT PERSON	BATCH # (Lab Use Only)							C Chilled	H HCL	Ot Other (see Remarks)			
SAMPLE FIELD ID\ NUMBER	DATE SAMPLED	TIME SAMPLED	COMP.	GRAB	DATE REC'D	TIME REC'D	STATION LOCATION / NO.	Weight	gVK	COMMENT / SAMPLE PRE FIX					
S-6-4	12/18/13	1520	X					13.83	S 1 ✓	48 hr TA					
S-6-5		1545	X					11.99	S 1 ✓	48 hr TA					
S-6-6 Low volume		1555	X					(10)	S 1 ✓	48 hr TA					
S-6-7		1620	X					13.03	S 1 ✓	48 hr TA					
S-6-8		1645	X					13.25	S 1 ✓	48 hr TA					
S-6-9		1700	X					12.06	S 1 ✓	48 hr TA					
S-4-4	12/19/13	0850	X					13.25	S 1 ✓	48hr TA					
S-4-3		0925	X					12.74	S 1 ✓	48hr TA					
S-4-2		0940	X					12.15	S 1 ✓	48hr TA					
S-5-1		1005	X					13.12	S 1 ✓	48hr TA					
S-5-2		1030	X					13	S 1 ✓	48 hr TA					
S-5-3		1055	X					12.59	S 1 ✓	48hr TA					
S-3-1		1110	X					15.46	S 1 ✓	48hr TA					
S-3-2		1120	X					12.48	S 1 ✓	48hr TA					
S-3-3		1130	X					12.29	S 1 ✓	48hr TA					
Precleaned Containers Relinquished by: (Signature) <i>Steve Rulz</i>	Date / Time 12/19/13 1400	Received by: (Signature)	Date / Time	Remarks and Observations											
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time 12/20/13												

Matrix Types    S Soil    SW Surface Water    GW Ground Water    SG Soil Gas

## **Pace Analytical Services Results**

January 07, 2014

Andrew Eyer  
GEL Engineering of NC  
PO Box 14262  
Research Triangle, NC 27709

RE: Project: B-4159 WBS33507.1.1  
Pace Project No.: 92184127

Dear Andrew Eyer:

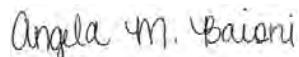
Enclosed are the analytical results for sample(s) received by the laboratory on December 19, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless 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.

The laboratory report is being reissued on January 7, 2014. The sample ID for 92184127002 were revised, per client request.

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

Sincerely,



Angela Baioni

angela.baioni@pacelabs.com  
Project Manager

Enclosures

cc: Chemical Testing Engineer, NCDOT



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: B-4159 WBS33507.1.1  
Pace Project No.: 92184127

---

### 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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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: B-4159 WBS33507.1.1  
 Pace Project No.: 92184127

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92184127001	S-8-4	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127002	S-8-3	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127003	S-4-1	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127004	S-6-5	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127005	S-6-6	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127006	S-6-7	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127007	S-6-9	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127008	S-6-1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127009	S-6-2	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127010	S-6-3	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127011	S-6-4	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184127012	S-6-8	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-4**      **Lab ID: 92184127001**      Collected: 12/18/13 10:00      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	83-32-9	
Acenaphthylene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	208-96-8	
Aniline	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	62-53-3	
Anthracene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	120-12-7	
Benzo(a)anthracene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	56-55-3	
Benzo(a)pyrene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	207-08-9	
Benzoic Acid	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	65-85-0	
Benzyl alcohol	ND ug/kg		756	1	12/20/13 10:30	12/23/13 18:46	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	101-55-3	
Butylbenzylphthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		756	1	12/20/13 10:30	12/23/13 18:46	59-50-7	
4-Chloroaniline	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	108-60-1	
2-Chloronaphthalene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	91-58-7	
2-Chlorophenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	7005-72-3	
Chrysene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	53-70-3	
Dibenzofuran	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	91-94-1	
2,4-Dichlorophenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	120-83-2	
Diethylphthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	84-66-2	
2,4-Dimethylphenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	105-67-9	
Dimethylphthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	131-11-3	
Di-n-butylphthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		756	1	12/20/13 10:30	12/23/13 18:46	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	606-20-2	
Di-n-octylphthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	117-81-7	
Fluoranthene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	206-44-0	
Fluorene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	87-68-3	
Hexachlorobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	77-47-4	
Hexachloroethane	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-4**      **Lab ID: 92184127001**      Collected: 12/18/13 10:00      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	78-59-1	
1-Methylnaphthalene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	90-12-0	
2-Methylnaphthalene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46		
Naphthalene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	91-20-3	
2-Nitroaniline	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	88-74-4	
3-Nitroaniline	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	99-09-2	
4-Nitroaniline	ND ug/kg		756	1	12/20/13 10:30	12/23/13 18:46	100-01-6	
Nitrobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	98-95-3	
2-Nitrophenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	88-75-5	
4-Nitrophenol	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	86-30-6	
Pentachlorophenol	ND ug/kg		1890	1	12/20/13 10:30	12/23/13 18:46	87-86-5	
Phenanthrene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	85-01-8	
Phenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	108-95-2	
Pyrene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		378	1	12/20/13 10:30	12/23/13 18:46	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	41 %		23-110	1	12/20/13 10:30	12/23/13 18:46	4165-60-0	
2-Fluorobiphenyl (S)	47 %		30-110	1	12/20/13 10:30	12/23/13 18:46	321-60-8	
Terphenyl-d14 (S)	57 %		28-110	1	12/20/13 10:30	12/23/13 18:46	1718-51-0	
Phenol-d6 (S)	47 %		22-110	1	12/20/13 10:30	12/23/13 18:46	13127-88-3	
2-Fluorophenol (S)	47 %		13-110	1	12/20/13 10:30	12/23/13 18:46	367-12-4	
2,4,6-Tribromophenol (S)	43 %		27-110	1	12/20/13 10:30	12/23/13 18:46	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		103	1		12/24/13 03:48	67-64-1	
Benzene	ND ug/kg		5.2	1		12/24/13 03:48	71-43-2	
Bromobenzene	ND ug/kg		5.2	1		12/24/13 03:48	108-86-1	
Bromochloromethane	ND ug/kg		5.2	1		12/24/13 03:48	74-97-5	
Bromodichloromethane	ND ug/kg		5.2	1		12/24/13 03:48	75-27-4	
Bromoform	ND ug/kg		5.2	1		12/24/13 03:48	75-25-2	
Bromomethane	ND ug/kg		10.3	1		12/24/13 03:48	74-83-9	
2-Butanone (MEK)	ND ug/kg		103	1		12/24/13 03:48	78-93-3	
n-Butylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	104-51-8	
sec-Butylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	135-98-8	
tert-Butylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	98-06-6	
Carbon tetrachloride	ND ug/kg		5.2	1		12/24/13 03:48	56-23-5	
Chlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	108-90-7	
Chloroethane	ND ug/kg		10.3	1		12/24/13 03:48	75-00-3	
Chloroform	ND ug/kg		5.2	1		12/24/13 03:48	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

---

**Sample: S-8-4**      **Lab ID: 92184127001**      Collected: 12/18/13 10:00      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		10.3	1		12/24/13 03:48	74-87-3	
2-Chlorotoluene	ND ug/kg		5.2	1		12/24/13 03:48	95-49-8	
4-Chlorotoluene	ND ug/kg		5.2	1		12/24/13 03:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.2	1		12/24/13 03:48	96-12-8	
Dibromochloromethane	ND ug/kg		5.2	1		12/24/13 03:48	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.2	1		12/24/13 03:48	106-93-4	
Dibromomethane	ND ug/kg		5.2	1		12/24/13 03:48	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10.3	1		12/24/13 03:48	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.2	1		12/24/13 03:48	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.2	1		12/24/13 03:48	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.2	1		12/24/13 03:48	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.2	1		12/24/13 03:48	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.2	1		12/24/13 03:48	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.2	1		12/24/13 03:48	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.2	1		12/24/13 03:48	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.2	1		12/24/13 03:48	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.2	1		12/24/13 03:48	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.2	1		12/24/13 03:48	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.2	1		12/24/13 03:48	10061-02-6	
Diisopropyl ether	ND ug/kg		5.2	1		12/24/13 03:48	108-20-3	
Ethylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.2	1		12/24/13 03:48	87-68-3	
2-Hexanone	ND ug/kg		51.5	1		12/24/13 03:48	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.2	1		12/24/13 03:48	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.2	1		12/24/13 03:48	99-87-6	
Methylene Chloride	ND ug/kg		20.6	1		12/24/13 03:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		51.5	1		12/24/13 03:48	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.2	1		12/24/13 03:48	1634-04-4	
Naphthalene	ND ug/kg		5.2	1		12/24/13 03:48	91-20-3	
n-Propylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	103-65-1	
Styrene	ND ug/kg		5.2	1		12/24/13 03:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.2	1		12/24/13 03:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.2	1		12/24/13 03:48	79-34-5	
Tetrachloroethene	ND ug/kg		5.2	1		12/24/13 03:48	127-18-4	
Toluene	ND ug/kg		5.2	1		12/24/13 03:48	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.2	1		12/24/13 03:48	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.2	1		12/24/13 03:48	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.2	1		12/24/13 03:48	79-00-5	
Trichloroethene	ND ug/kg		5.2	1		12/24/13 03:48	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.2	1		12/24/13 03:48	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.2	1		12/24/13 03:48	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	95-63-6	

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Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-4**      Lab ID: **92184127001**      Collected: 12/18/13 10:00      Received: 12/19/13 14:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		5.2	1		12/24/13 03:48	108-67-8	
Vinyl acetate	ND ug/kg		51.5	1		12/24/13 03:48	108-05-4	
Vinyl chloride	ND ug/kg		10.3	1		12/24/13 03:48	75-01-4	
Xylene (Total)	ND ug/kg		10.3	1		12/24/13 03:48	1330-20-7	
m&p-Xylene	ND ug/kg		10.3	1		12/24/13 03:48	179601-23-1	
o-Xylene	ND ug/kg		5.2	1		12/24/13 03:48	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	97 %		70-130	1		12/24/13 03:48	2037-26-5	
4-Bromofluorobenzene (S)	93 %		70-130	1		12/24/13 03:48	460-00-4	
1,2-Dichloroethane-d4 (S)	111 %		70-132	1		12/24/13 03:48	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	12.7 %		0.10	1		12/20/13 16:54		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-8-3**      Lab ID: **92184127002**      Collected: 12/18/13 10:25      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	83-32-9	
Acenaphthylene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	208-96-8	
Aniline	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	62-53-3	
Anthracene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	120-12-7	
Benzo(a)anthracene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	56-55-3	
Benzo(a)pyrene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	207-08-9	
Benzoic Acid	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	65-85-0	
Benzyl alcohol	ND ug/kg		904	1	12/20/13 10:30	12/23/13 19:18	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	101-55-3	
Butylbenzylphthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		904	1	12/20/13 10:30	12/23/13 19:18	59-50-7	
4-Chloroaniline	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	108-60-1	
2-Chloronaphthalene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	91-58-7	
2-Chlorophenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	7005-72-3	
Chrysene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	53-70-3	
Dibenzofuran	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	91-94-1	
2,4-Dichlorophenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	120-83-2	
Diethylphthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	84-66-2	
2,4-Dimethylphenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	105-67-9	
Dimethylphthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	131-11-3	
Di-n-butylphthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		904	1	12/20/13 10:30	12/23/13 19:18	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	606-20-2	
Di-n-octylphthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	117-81-7	
Fluoranthene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	206-44-0	
Fluorene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	87-68-3	
Hexachlorobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	77-47-4	
Hexachloroethane	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-3**      **Lab ID: 92184127002**      Collected: 12/18/13 10:25      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	78-59-1	
1-Methylnaphthalene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	90-12-0	
2-Methylnaphthalene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18		
Naphthalene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	91-20-3	
2-Nitroaniline	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	88-74-4	
3-Nitroaniline	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	99-09-2	
4-Nitroaniline	ND ug/kg		904	1	12/20/13 10:30	12/23/13 19:18	100-01-6	
Nitrobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	98-95-3	
2-Nitrophenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	88-75-5	
4-Nitrophenol	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	86-30-6	
Pentachlorophenol	ND ug/kg		2260	1	12/20/13 10:30	12/23/13 19:18	87-86-5	
Phenanthrene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	85-01-8	
Phenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	108-95-2	
Pyrene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		452	1	12/20/13 10:30	12/23/13 19:18	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	57 %		23-110	1	12/20/13 10:30	12/23/13 19:18	4165-60-0	
2-Fluorobiphenyl (S)	53 %		30-110	1	12/20/13 10:30	12/23/13 19:18	321-60-8	
Terphenyl-d14 (S)	69 %		28-110	1	12/20/13 10:30	12/23/13 19:18	1718-51-0	
Phenol-d6 (S)	50 %		22-110	1	12/20/13 10:30	12/23/13 19:18	13127-88-3	
2-Fluorophenol (S)	49 %		13-110	1	12/20/13 10:30	12/23/13 19:18	367-12-4	
2,4,6-Tribromophenol (S)	51 %		27-110	1	12/20/13 10:30	12/23/13 19:18	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	218 ug/kg		107	1		12/24/13 19:14	67-64-1	A+
Benzene	ND ug/kg		5.4	1		12/24/13 19:14	71-43-2	
Bromobenzene	ND ug/kg		5.4	1		12/24/13 19:14	108-86-1	
Bromochloromethane	ND ug/kg		5.4	1		12/24/13 19:14	74-97-5	
Bromodichloromethane	ND ug/kg		5.4	1		12/24/13 19:14	75-27-4	
Bromoform	ND ug/kg		5.4	1		12/24/13 19:14	75-25-2	
Bromomethane	ND ug/kg		10.7	1		12/24/13 19:14	74-83-9	
2-Butanone (MEK)	ND ug/kg		107	1		12/24/13 19:14	78-93-3	
n-Butylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	104-51-8	
sec-Butylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	135-98-8	
tert-Butylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	98-06-6	
Carbon tetrachloride	ND ug/kg		5.4	1		12/24/13 19:14	56-23-5	
Chlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	108-90-7	
Chloroethane	ND ug/kg		10.7	1		12/24/13 19:14	75-00-3	
Chloroform	ND ug/kg		5.4	1		12/24/13 19:14	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-3                          Lab ID: 92184127002                  Collected: 12/18/13 10:25                  Received: 12/19/13 14:00                  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						
Chloromethane	ND ug/kg		10.7	1		12/24/13 19:14	74-87-3	
2-Chlorotoluene	ND ug/kg		5.4	1		12/24/13 19:14	95-49-8	
4-Chlorotoluene	ND ug/kg		5.4	1		12/24/13 19:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.4	1		12/24/13 19:14	96-12-8	
Dibromochloromethane	ND ug/kg		5.4	1		12/24/13 19:14	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.4	1		12/24/13 19:14	106-93-4	
Dibromomethane	ND ug/kg		5.4	1		12/24/13 19:14	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10.7	1		12/24/13 19:14	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.4	1		12/24/13 19:14	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.4	1		12/24/13 19:14	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.4	1		12/24/13 19:14	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.4	1		12/24/13 19:14	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.4	1		12/24/13 19:14	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.4	1		12/24/13 19:14	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.4	1		12/24/13 19:14	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.4	1		12/24/13 19:14	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.4	1		12/24/13 19:14	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.4	1		12/24/13 19:14	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.4	1		12/24/13 19:14	10061-02-6	
Diisopropyl ether	ND ug/kg		5.4	1		12/24/13 19:14	108-20-3	
Ethylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.4	1		12/24/13 19:14	87-68-3	
2-Hexanone	ND ug/kg		53.7	1		12/24/13 19:14	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.4	1		12/24/13 19:14	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.4	1		12/24/13 19:14	99-87-6	
Methylene Chloride	ND ug/kg		21.5	1		12/24/13 19:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		53.7	1		12/24/13 19:14	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.4	1		12/24/13 19:14	1634-04-4	
Naphthalene	ND ug/kg		5.4	1		12/24/13 19:14	91-20-3	
n-Propylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	103-65-1	
Styrene	ND ug/kg		5.4	1		12/24/13 19:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.4	1		12/24/13 19:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.4	1		12/24/13 19:14	79-34-5	
Tetrachloroethene	ND ug/kg		5.4	1		12/24/13 19:14	127-18-4	
Toluene	ND ug/kg		5.4	1		12/24/13 19:14	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.4	1		12/24/13 19:14	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.4	1		12/24/13 19:14	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.4	1		12/24/13 19:14	79-00-5	
Trichloroethene	ND ug/kg		5.4	1		12/24/13 19:14	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.4	1		12/24/13 19:14	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.4	1		12/24/13 19:14	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-8-3**      Lab ID: **92184127002**      Collected: 12/18/13 10:25      Received: 12/19/13 14:00      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							
1,3,5-Trimethylbenzene	ND ug/kg		5.4	1		12/24/13 19:14	108-67-8	
Vinyl acetate	ND ug/kg		53.7	1		12/24/13 19:14	108-05-4	
Vinyl chloride	ND ug/kg		10.7	1		12/24/13 19:14	75-01-4	
Xylene (Total)	ND ug/kg		10.7	1		12/24/13 19:14	1330-20-7	
m&p-Xylene	ND ug/kg		10.7	1		12/24/13 19:14	179601-23-1	
o-Xylene	ND ug/kg		5.4	1		12/24/13 19:14	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		12/24/13 19:14	2037-26-5	
4-Bromofluorobenzene (S)	92 %		70-130	1		12/24/13 19:14	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		70-132	1		12/24/13 19:14	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>27.0 %</b>		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-4-1**      Lab ID: **92184127003**      Collected: 12/18/13 15:05      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	83-32-9	
Acenaphthylene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	208-96-8	
Aniline	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	62-53-3	
Anthracene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	120-12-7	
Benzo(a)anthracene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	56-55-3	
Benzo(a)pyrene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	207-08-9	
Benzoic Acid	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	65-85-0	
Benzyl alcohol	ND ug/kg		739	1	12/20/13 10:30	12/23/13 19:50	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	101-55-3	
Butylbenzylphthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		739	1	12/20/13 10:30	12/23/13 19:50	59-50-7	
4-Chloroaniline	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	108-60-1	
2-Chloronaphthalene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	91-58-7	
2-Chlorophenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	7005-72-3	
Chrysene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	53-70-3	
Dibenzofuran	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	91-94-1	
2,4-Dichlorophenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	120-83-2	
Diethylphthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	84-66-2	
2,4-Dimethylphenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	105-67-9	
Dimethylphthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	131-11-3	
Di-n-butylphthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		739	1	12/20/13 10:30	12/23/13 19:50	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	606-20-2	
Di-n-octylphthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	117-81-7	
Fluoranthene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	206-44-0	
Fluorene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	87-68-3	
Hexachlorobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	77-47-4	
Hexachloroethane	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-4-1**      Lab ID: **92184127003**      Collected: 12/18/13 15:05      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	78-59-1	
1-Methylnaphthalene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	90-12-0	
2-Methylnaphthalene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50		
Naphthalene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	91-20-3	
2-Nitroaniline	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	88-74-4	
3-Nitroaniline	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	99-09-2	
4-Nitroaniline	ND ug/kg		739	1	12/20/13 10:30	12/23/13 19:50	100-01-6	
Nitrobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	98-95-3	
2-Nitrophenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	88-75-5	
4-Nitrophenol	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	86-30-6	
Pentachlorophenol	ND ug/kg		1850	1	12/20/13 10:30	12/23/13 19:50	87-86-5	
Phenanthrene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	85-01-8	
Phenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	108-95-2	
Pyrene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		369	1	12/20/13 10:30	12/23/13 19:50	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	65 %		23-110	1	12/20/13 10:30	12/23/13 19:50	4165-60-0	
2-Fluorobiphenyl (S)	67 %		30-110	1	12/20/13 10:30	12/23/13 19:50	321-60-8	
Terphenyl-d14 (S)	79 %		28-110	1	12/20/13 10:30	12/23/13 19:50	1718-51-0	
Phenol-d6 (S)	51 %		22-110	1	12/20/13 10:30	12/23/13 19:50	13127-88-3	
2-Fluorophenol (S)	42 %		13-110	1	12/20/13 10:30	12/23/13 19:50	367-12-4	
2,4,6-Tribromophenol (S)	28 %		27-110	1	12/20/13 10:30	12/23/13 19:50	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		84.8	1		12/24/13 19:33	67-64-1	
Benzene	ND ug/kg		4.2	1		12/24/13 19:33	71-43-2	
Bromobenzene	ND ug/kg		4.2	1		12/24/13 19:33	108-86-1	
Bromochloromethane	ND ug/kg		4.2	1		12/24/13 19:33	74-97-5	
Bromodichloromethane	ND ug/kg		4.2	1		12/24/13 19:33	75-27-4	
Bromoform	ND ug/kg		4.2	1		12/24/13 19:33	75-25-2	
Bromomethane	ND ug/kg		8.5	1		12/24/13 19:33	74-83-9	
2-Butanone (MEK)	ND ug/kg		84.8	1		12/24/13 19:33	78-93-3	
n-Butylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	104-51-8	
sec-Butylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	135-98-8	
tert-Butylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	98-06-6	
Carbon tetrachloride	ND ug/kg		4.2	1		12/24/13 19:33	56-23-5	
Chlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	108-90-7	
Chloroethane	ND ug/kg		8.5	1		12/24/13 19:33	75-00-3	
Chloroform	ND ug/kg		4.2	1		12/24/13 19:33	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-4-1**      Lab ID: **92184127003**      Collected: 12/18/13 15:05      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		8.5	1		12/24/13 19:33	74-87-3	
2-Chlorotoluene	ND ug/kg		4.2	1		12/24/13 19:33	95-49-8	
4-Chlorotoluene	ND ug/kg		4.2	1		12/24/13 19:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.2	1		12/24/13 19:33	96-12-8	
Dibromochloromethane	ND ug/kg		4.2	1		12/24/13 19:33	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.2	1		12/24/13 19:33	106-93-4	
Dibromomethane	ND ug/kg		4.2	1		12/24/13 19:33	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.5	1		12/24/13 19:33	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.2	1		12/24/13 19:33	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.2	1		12/24/13 19:33	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.2	1		12/24/13 19:33	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.2	1		12/24/13 19:33	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.2	1		12/24/13 19:33	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.2	1		12/24/13 19:33	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.2	1		12/24/13 19:33	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.2	1		12/24/13 19:33	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.2	1		12/24/13 19:33	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.2	1		12/24/13 19:33	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.2	1		12/24/13 19:33	10061-02-6	
Diisopropyl ether	ND ug/kg		4.2	1		12/24/13 19:33	108-20-3	
Ethylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.2	1		12/24/13 19:33	87-68-3	
2-Hexanone	ND ug/kg		42.4	1		12/24/13 19:33	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.2	1		12/24/13 19:33	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.2	1		12/24/13 19:33	99-87-6	
Methylene Chloride	ND ug/kg		17.0	1		12/24/13 19:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		42.4	1		12/24/13 19:33	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.2	1		12/24/13 19:33	1634-04-4	
Naphthalene	ND ug/kg		4.2	1		12/24/13 19:33	91-20-3	
n-Propylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	103-65-1	
Styrene	ND ug/kg		4.2	1		12/24/13 19:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.2	1		12/24/13 19:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.2	1		12/24/13 19:33	79-34-5	
Tetrachloroethene	ND ug/kg		4.2	1		12/24/13 19:33	127-18-4	
Toluene	ND ug/kg		4.2	1		12/24/13 19:33	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.2	1		12/24/13 19:33	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.2	1		12/24/13 19:33	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.2	1		12/24/13 19:33	79-00-5	
Trichloroethene	ND ug/kg		4.2	1		12/24/13 19:33	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.2	1		12/24/13 19:33	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.2	1		12/24/13 19:33	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-4-1**      Lab ID: **92184127003**      Collected: 12/18/13 15:05      Received: 12/19/13 14:00      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							
1,3,5-Trimethylbenzene	ND ug/kg		4.2	1		12/24/13 19:33	108-67-8	
Vinyl acetate	ND ug/kg		42.4	1		12/24/13 19:33	108-05-4	
Vinyl chloride	ND ug/kg		8.5	1		12/24/13 19:33	75-01-4	
Xylene (Total)	ND ug/kg		8.5	1		12/24/13 19:33	1330-20-7	
m&p-Xylene	ND ug/kg		8.5	1		12/24/13 19:33	179601-23-1	
o-Xylene	ND ug/kg		4.2	1		12/24/13 19:33	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/24/13 19:33	2037-26-5	
4-Bromofluorobenzene (S)	94 %		70-130	1		12/24/13 19:33	460-00-4	
1,2-Dichloroethane-d4 (S)	122 %		70-132	1		12/24/13 19:33	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>10.7 %</b>		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-5**      Lab ID: **92184127004**      Collected: 12/18/13 15:45      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	83-32-9	
Acenaphthylene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	208-96-8	
Aniline	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	62-53-3	
Anthracene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	120-12-7	
Benzo(a)anthracene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	56-55-3	
Benzo(a)pyrene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	207-08-9	
Benzoic Acid	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	65-85-0	
Benzyl alcohol	ND ug/kg		779	1	12/20/13 10:30	12/23/13 20:21	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	101-55-3	
Butylbenzylphthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		779	1	12/20/13 10:30	12/23/13 20:21	59-50-7	
4-Chloroaniline	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	108-60-1	
2-Chloronaphthalene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	91-58-7	
2-Chlorophenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	7005-72-3	
Chrysene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	53-70-3	
Dibenzofuran	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	91-94-1	
2,4-Dichlorophenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	120-83-2	
Diethylphthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	84-66-2	
2,4-Dimethylphenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	105-67-9	
Dimethylphthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	131-11-3	
Di-n-butylphthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		779	1	12/20/13 10:30	12/23/13 20:21	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	606-20-2	
Di-n-octylphthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	117-81-7	
Fluoranthene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	206-44-0	
Fluorene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	87-68-3	
Hexachlorobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	77-47-4	
Hexachloroethane	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-5      Lab ID: 92184127004      Collected: 12/18/13 15:45      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	78-59-1	
1-Methylnaphthalene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	90-12-0	
2-Methylnaphthalene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21		
Naphthalene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	91-20-3	
2-Nitroaniline	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	88-74-4	
3-Nitroaniline	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	99-09-2	
4-Nitroaniline	ND ug/kg		779	1	12/20/13 10:30	12/23/13 20:21	100-01-6	
Nitrobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	98-95-3	
2-Nitrophenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	88-75-5	
4-Nitrophenol	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	86-30-6	
Pentachlorophenol	ND ug/kg		1950	1	12/20/13 10:30	12/23/13 20:21	87-86-5	
Phenanthrene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	85-01-8	
Phenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	108-95-2	
Pyrene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		390	1	12/20/13 10:30	12/23/13 20:21	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	72 %		23-110	1	12/20/13 10:30	12/23/13 20:21	4165-60-0	
2-Fluorobiphenyl (S)	73 %		30-110	1	12/20/13 10:30	12/23/13 20:21	321-60-8	
Terphenyl-d14 (S)	73 %		28-110	1	12/20/13 10:30	12/23/13 20:21	1718-51-0	
Phenol-d6 (S)	67 %		22-110	1	12/20/13 10:30	12/23/13 20:21	13127-88-3	
2-Fluorophenol (S)	68 %		13-110	1	12/20/13 10:30	12/23/13 20:21	367-12-4	
2,4,6-Tribromophenol (S)	54 %		27-110	1	12/20/13 10:30	12/23/13 20:21	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		86.3	1		12/24/13 19:53	67-64-1	
Benzene	ND ug/kg		4.3	1		12/24/13 19:53	71-43-2	
Bromobenzene	ND ug/kg		4.3	1		12/24/13 19:53	108-86-1	
Bromochloromethane	ND ug/kg		4.3	1		12/24/13 19:53	74-97-5	
Bromodichloromethane	ND ug/kg		4.3	1		12/24/13 19:53	75-27-4	
Bromoform	ND ug/kg		4.3	1		12/24/13 19:53	75-25-2	
Bromomethane	ND ug/kg		8.6	1		12/24/13 19:53	74-83-9	
2-Butanone (MEK)	ND ug/kg		86.3	1		12/24/13 19:53	78-93-3	
n-Butylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	104-51-8	
sec-Butylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	135-98-8	
tert-Butylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	98-06-6	
Carbon tetrachloride	ND ug/kg		4.3	1		12/24/13 19:53	56-23-5	
Chlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	108-90-7	
Chloroethane	ND ug/kg		8.6	1		12/24/13 19:53	75-00-3	
Chloroform	ND ug/kg		4.3	1		12/24/13 19:53	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-5**      **Lab ID: 92184127004**      Collected: 12/18/13 15:45      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		8.6	1		12/24/13 19:53	74-87-3	
2-Chlorotoluene	ND ug/kg		4.3	1		12/24/13 19:53	95-49-8	
4-Chlorotoluene	ND ug/kg		4.3	1		12/24/13 19:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.3	1		12/24/13 19:53	96-12-8	
Dibromochloromethane	ND ug/kg		4.3	1		12/24/13 19:53	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.3	1		12/24/13 19:53	106-93-4	
Dibromomethane	ND ug/kg		4.3	1		12/24/13 19:53	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.6	1		12/24/13 19:53	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.3	1		12/24/13 19:53	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.3	1		12/24/13 19:53	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.3	1		12/24/13 19:53	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.3	1		12/24/13 19:53	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.3	1		12/24/13 19:53	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.3	1		12/24/13 19:53	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.3	1		12/24/13 19:53	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.3	1		12/24/13 19:53	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.3	1		12/24/13 19:53	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.3	1		12/24/13 19:53	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.3	1		12/24/13 19:53	10061-02-6	
Diisopropyl ether	ND ug/kg		4.3	1		12/24/13 19:53	108-20-3	
Ethylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.3	1		12/24/13 19:53	87-68-3	
2-Hexanone	ND ug/kg		43.1	1		12/24/13 19:53	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.3	1		12/24/13 19:53	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.3	1		12/24/13 19:53	99-87-6	
Methylene Chloride	ND ug/kg		17.3	1		12/24/13 19:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		43.1	1		12/24/13 19:53	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.3	1		12/24/13 19:53	1634-04-4	
Naphthalene	ND ug/kg		4.3	1		12/24/13 19:53	91-20-3	
n-Propylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	103-65-1	
Styrene	ND ug/kg		4.3	1		12/24/13 19:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.3	1		12/24/13 19:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.3	1		12/24/13 19:53	79-34-5	
Tetrachloroethene	ND ug/kg		4.3	1		12/24/13 19:53	127-18-4	
Toluene	ND ug/kg		4.3	1		12/24/13 19:53	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.3	1		12/24/13 19:53	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.3	1		12/24/13 19:53	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.3	1		12/24/13 19:53	79-00-5	
Trichloroethene	ND ug/kg		4.3	1		12/24/13 19:53	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.3	1		12/24/13 19:53	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.3	1		12/24/13 19:53	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-5**      Lab ID: **92184127004**      Collected: 12/18/13 15:45      Received: 12/19/13 14:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		4.3	1		12/24/13 19:53	108-67-8	
Vinyl acetate	ND ug/kg		43.1	1		12/24/13 19:53	108-05-4	
Vinyl chloride	ND ug/kg		8.6	1		12/24/13 19:53	75-01-4	
Xylene (Total)	ND ug/kg		8.6	1		12/24/13 19:53	1330-20-7	
m&p-Xylene	ND ug/kg		8.6	1		12/24/13 19:53	179601-23-1	
o-Xylene	ND ug/kg		4.3	1		12/24/13 19:53	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		12/24/13 19:53	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		12/24/13 19:53	460-00-4	
1,2-Dichloroethane-d4 (S)	111 %		70-132	1		12/24/13 19:53	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	15.3 %		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-6**      Lab ID: **92184127005**      Collected: 12/18/13 15:55      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	83-32-9	
Acenaphthylene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	208-96-8	
Aniline	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	62-53-3	
Anthracene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	120-12-7	
Benzo(a)anthracene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	56-55-3	
Benzo(a)pyrene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	207-08-9	
Benzoic Acid	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	65-85-0	
Benzyl alcohol	ND ug/kg		2790	1	12/24/13 10:53	12/26/13 21:36	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	101-55-3	
Butylbenzylphthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		2790	1	12/24/13 10:53	12/26/13 21:36	59-50-7	
4-Chloroaniline	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	108-60-1	
2-Chloronaphthalene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	91-58-7	
2-Chlorophenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	7005-72-3	
Chrysene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	53-70-3	
Dibenzofuran	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	91-94-1	
2,4-Dichlorophenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	120-83-2	
Diethylphthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	84-66-2	
2,4-Dimethylphenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	105-67-9	
Dimethylphthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	131-11-3	
Di-n-butylphthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		2790	1	12/24/13 10:53	12/26/13 21:36	534-52-1	
2,4-Dinitrophenol	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	606-20-2	
Di-n-octylphthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	117-81-7	
Fluoranthene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	206-44-0	
Fluorene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	87-68-3	
Hexachlorobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	77-47-4	
Hexachloroethane	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-6**      Lab ID: **92184127005**      Collected: 12/18/13 15:55      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	78-59-1	
1-Methylnaphthalene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	90-12-0	
2-Methylnaphthalene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36		
Naphthalene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	91-20-3	
2-Nitroaniline	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	88-74-4	
3-Nitroaniline	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	99-09-2	
4-Nitroaniline	ND ug/kg		2790	1	12/24/13 10:53	12/26/13 21:36	100-01-6	
Nitrobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	98-95-3	
2-Nitrophenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	88-75-5	
4-Nitrophenol	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	86-30-6	
Pentachlorophenol	ND ug/kg		6990	1	12/24/13 10:53	12/26/13 21:36	87-86-5	
Phenanthrene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	85-01-8	
Phenol	<b>1430</b> ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	108-95-2	
Pyrene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		1400	1	12/24/13 10:53	12/26/13 21:36	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	4 %		23-110	1	12/24/13 10:53	12/26/13 21:36	4165-60-0	S2
2-Fluorobiphenyl (S)	0 %		30-110	1	12/24/13 10:53	12/26/13 21:36	321-60-8	S2
Terphenyl-d14 (S)	3 %		28-110	1	12/24/13 10:53	12/26/13 21:36	1718-51-0	S2
Phenol-d6 (S)	8 %		22-110	1	12/24/13 10:53	12/26/13 21:36	13127-88-3	S2
2-Fluorophenol (S)	1 %		13-110	1	12/24/13 10:53	12/26/13 21:36	367-12-4	S2
2,4,6-Tribromophenol (S)	2 %		27-110	1	12/24/13 10:53	12/26/13 21:36	118-79-6	S2
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		593	1		12/24/13 20:13	67-64-1	
Benzene	ND ug/kg		29.6	1		12/24/13 20:13	71-43-2	
Bromobenzene	ND ug/kg		29.6	1		12/24/13 20:13	108-86-1	
Bromochloromethane	ND ug/kg		29.6	1		12/24/13 20:13	74-97-5	
Bromodichloromethane	ND ug/kg		29.6	1		12/24/13 20:13	75-27-4	
Bromoform	ND ug/kg		29.6	1		12/24/13 20:13	75-25-2	
Bromomethane	ND ug/kg		59.3	1		12/24/13 20:13	74-83-9	
2-Butanone (MEK)	ND ug/kg		593	1		12/24/13 20:13	78-93-3	
n-Butylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	104-51-8	
sec-Butylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	135-98-8	
tert-Butylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	98-06-6	
Carbon tetrachloride	ND ug/kg		29.6	1		12/24/13 20:13	56-23-5	
Chlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	108-90-7	
Chloroethane	ND ug/kg		59.3	1		12/24/13 20:13	75-00-3	
Chloroform	ND ug/kg		29.6	1		12/24/13 20:13	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-6**      **Lab ID: 92184127005**      Collected: 12/18/13 15:55      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		59.3	1		12/24/13 20:13	74-87-3	
2-Chlorotoluene	ND ug/kg		29.6	1		12/24/13 20:13	95-49-8	
4-Chlorotoluene	ND ug/kg		29.6	1		12/24/13 20:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		29.6	1		12/24/13 20:13	96-12-8	
Dibromochloromethane	ND ug/kg		29.6	1		12/24/13 20:13	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		29.6	1		12/24/13 20:13	106-93-4	
Dibromomethane	ND ug/kg		29.6	1		12/24/13 20:13	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	106-46-7	
Dichlorodifluoromethane	ND ug/kg		59.3	1		12/24/13 20:13	75-71-8	1g
1,1-Dichloroethane	ND ug/kg		29.6	1		12/24/13 20:13	75-34-3	
1,2-Dichloroethane	ND ug/kg		29.6	1		12/24/13 20:13	107-06-2	
1,1-Dichloroethene	ND ug/kg		29.6	1		12/24/13 20:13	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		29.6	1		12/24/13 20:13	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		29.6	1		12/24/13 20:13	156-60-5	
1,2-Dichloropropane	ND ug/kg		29.6	1		12/24/13 20:13	78-87-5	
1,3-Dichloropropane	ND ug/kg		29.6	1		12/24/13 20:13	142-28-9	
2,2-Dichloropropane	ND ug/kg		29.6	1		12/24/13 20:13	594-20-7	
1,1-Dichloropropene	ND ug/kg		29.6	1		12/24/13 20:13	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		29.6	1		12/24/13 20:13	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		29.6	1		12/24/13 20:13	10061-02-6	
Diisopropyl ether	ND ug/kg		29.6	1		12/24/13 20:13	108-20-3	
Ethylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		29.6	1		12/24/13 20:13	87-68-3	
2-Hexanone	ND ug/kg		296	1		12/24/13 20:13	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		29.6	1		12/24/13 20:13	98-82-8	
p-Isopropyltoluene	ND ug/kg		29.6	1		12/24/13 20:13	99-87-6	
Methylene Chloride	ND ug/kg		119	1		12/24/13 20:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		296	1		12/24/13 20:13	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		29.6	1		12/24/13 20:13	1634-04-4	
Naphthalene	ND ug/kg		29.6	1		12/24/13 20:13	91-20-3	
n-Propylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	103-65-1	
Styrene	ND ug/kg		29.6	1		12/24/13 20:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		29.6	1		12/24/13 20:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		29.6	1		12/24/13 20:13	79-34-5	
Tetrachloroethene	ND ug/kg		29.6	1		12/24/13 20:13	127-18-4	
Toluene	ND ug/kg		29.6	1		12/24/13 20:13	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		29.6	1		12/24/13 20:13	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		29.6	1		12/24/13 20:13	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		29.6	1		12/24/13 20:13	79-00-5	
Trichloroethene	ND ug/kg		29.6	1		12/24/13 20:13	79-01-6	
Trichlorofluoromethane	ND ug/kg		29.6	1		12/24/13 20:13	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		29.6	1		12/24/13 20:13	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	95-63-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-6** Lab ID: **92184127005** Collected: 12/18/13 15:55 Received: 12/19/13 14:00 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							
1,3,5-Trimethylbenzene	ND ug/kg		29.6	1		12/24/13 20:13	108-67-8	
Vinyl acetate	ND ug/kg		296	1		12/24/13 20:13	108-05-4	
Vinyl chloride	ND ug/kg		59.3	1		12/24/13 20:13	75-01-4	
Xylene (Total)	ND ug/kg		59.3	1		12/24/13 20:13	1330-20-7	
m&p-Xylene	ND ug/kg		59.3	1		12/24/13 20:13	179601-23-1	
o-Xylene	ND ug/kg		29.6	1		12/24/13 20:13	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	91 %		70-130	1		12/24/13 20:13	2037-26-5	
4-Bromofluorobenzene (S)	72 %		70-130	1		12/24/13 20:13	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		70-132	1		12/24/13 20:13	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>76.4 %</b>		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-7**      Lab ID: **92184127006**      Collected: 12/18/13 16:20      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	83-32-9	
Acenaphthylene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	208-96-8	
Aniline	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	62-53-3	
Anthracene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	120-12-7	
Benzo(a)anthracene	<b>625</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	56-55-3	
Benzo(a)pyrene	<b>673</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	50-32-8	
Benzo(b)fluoranthene	<b>516</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	191-24-2	
Benzo(k)fluoranthene	<b>493</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	207-08-9	
Benzoic Acid	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	65-85-0	
Benzyl alcohol	ND ug/kg		838	1	12/20/13 10:30	12/23/13 21:24	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	101-55-3	
Butylbenzylphthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		838	1	12/20/13 10:30	12/23/13 21:24	59-50-7	
4-Chloroaniline	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	108-60-1	
2-Chloronaphthalene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	91-58-7	
2-Chlorophenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	7005-72-3	
Chrysene	<b>648</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	53-70-3	
Dibenzofuran	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	91-94-1	
2,4-Dichlorophenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	120-83-2	
Diethylphthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	84-66-2	
2,4-Dimethylphenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	105-67-9	
Dimethylphthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	131-11-3	
Di-n-butylphthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		838	1	12/20/13 10:30	12/23/13 21:24	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	606-20-2	
Di-n-octylphthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	117-81-7	
Fluoranthene	<b>1320</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	206-44-0	
Fluorene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	87-68-3	
Hexachlorobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	77-47-4	
Hexachloroethane	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-7**      Lab ID: **92184127006**      Collected: 12/18/13 16:20      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	78-59-1	
1-Methylnaphthalene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	90-12-0	
2-Methylnaphthalene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24		
Naphthalene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	91-20-3	
2-Nitroaniline	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	88-74-4	
3-Nitroaniline	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	99-09-2	
4-Nitroaniline	ND ug/kg		838	1	12/20/13 10:30	12/23/13 21:24	100-01-6	
Nitrobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	98-95-3	
2-Nitrophenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	88-75-5	
4-Nitrophenol	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	86-30-6	
Pentachlorophenol	ND ug/kg		2090	1	12/20/13 10:30	12/23/13 21:24	87-86-5	
Phenanthrene	<b>688</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	85-01-8	
Phenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	108-95-2	
Pyrene	<b>981</b> ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		419	1	12/20/13 10:30	12/23/13 21:24	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	76 %		23-110	1	12/20/13 10:30	12/23/13 21:24	4165-60-0	
2-Fluorobiphenyl (S)	61 %		30-110	1	12/20/13 10:30	12/23/13 21:24	321-60-8	
Terphenyl-d14 (S)	57 %		28-110	1	12/20/13 10:30	12/23/13 21:24	1718-51-0	
Phenol-d6 (S)	70 %		22-110	1	12/20/13 10:30	12/23/13 21:24	13127-88-3	
2-Fluorophenol (S)	72 %		13-110	1	12/20/13 10:30	12/23/13 21:24	367-12-4	
2,4,6-Tribromophenol (S)	72 %		27-110	1	12/20/13 10:30	12/23/13 21:24	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	<b>119</b> ug/kg		84.4	1		12/24/13 20:32	67-64-1	1g
Benzene	ND ug/kg		4.2	1		12/24/13 20:32	71-43-2	
Bromobenzene	ND ug/kg		4.2	1		12/24/13 20:32	108-86-1	
Bromochloromethane	ND ug/kg		4.2	1		12/24/13 20:32	74-97-5	
Bromodichloromethane	ND ug/kg		4.2	1		12/24/13 20:32	75-27-4	
Bromoform	ND ug/kg		4.2	1		12/24/13 20:32	75-25-2	
Bromomethane	ND ug/kg		8.4	1		12/24/13 20:32	74-83-9	
2-Butanone (MEK)	ND ug/kg		84.4	1		12/24/13 20:32	78-93-3	
n-Butylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	104-51-8	
sec-Butylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	135-98-8	
tert-Butylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	98-06-6	
Carbon tetrachloride	ND ug/kg		4.2	1		12/24/13 20:32	56-23-5	
Chlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	108-90-7	
Chloroethane	ND ug/kg		8.4	1		12/24/13 20:32	75-00-3	
Chloroform	ND ug/kg		4.2	1		12/24/13 20:32	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-7**      Lab ID: **92184127006**      Collected: 12/18/13 16:20      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		8.4	1		12/24/13 20:32	74-87-3	
2-Chlorotoluene	ND ug/kg		4.2	1		12/24/13 20:32	95-49-8	
4-Chlorotoluene	ND ug/kg		4.2	1		12/24/13 20:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.2	1		12/24/13 20:32	96-12-8	
Dibromochloromethane	ND ug/kg		4.2	1		12/24/13 20:32	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.2	1		12/24/13 20:32	106-93-4	
Dibromomethane	ND ug/kg		4.2	1		12/24/13 20:32	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.4	1		12/24/13 20:32	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.2	1		12/24/13 20:32	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.2	1		12/24/13 20:32	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.2	1		12/24/13 20:32	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.2	1		12/24/13 20:32	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.2	1		12/24/13 20:32	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.2	1		12/24/13 20:32	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.2	1		12/24/13 20:32	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.2	1		12/24/13 20:32	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.2	1		12/24/13 20:32	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.2	1		12/24/13 20:32	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.2	1		12/24/13 20:32	10061-02-6	
Diisopropyl ether	ND ug/kg		4.2	1		12/24/13 20:32	108-20-3	
Ethylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.2	1		12/24/13 20:32	87-68-3	
2-Hexanone	ND ug/kg		42.2	1		12/24/13 20:32	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.2	1		12/24/13 20:32	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.2	1		12/24/13 20:32	99-87-6	
Methylene Chloride	ND ug/kg		16.9	1		12/24/13 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		42.2	1		12/24/13 20:32	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.2	1		12/24/13 20:32	1634-04-4	
Naphthalene	ND ug/kg		4.2	1		12/24/13 20:32	91-20-3	
n-Propylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	103-65-1	
Styrene	ND ug/kg		4.2	1		12/24/13 20:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.2	1		12/24/13 20:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.2	1		12/24/13 20:32	79-34-5	
Tetrachloroethene	ND ug/kg		4.2	1		12/24/13 20:32	127-18-4	
Toluene	ND ug/kg		4.2	1		12/24/13 20:32	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.2	1		12/24/13 20:32	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.2	1		12/24/13 20:32	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.2	1		12/24/13 20:32	79-00-5	
Trichloroethene	ND ug/kg		4.2	1		12/24/13 20:32	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.2	1		12/24/13 20:32	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.2	1		12/24/13 20:32	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-7** Lab ID: **92184127006** Collected: 12/18/13 16:20 Received: 12/19/13 14:00 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							
1,3,5-Trimethylbenzene	ND ug/kg		4.2	1		12/24/13 20:32	108-67-8	
Vinyl acetate	ND ug/kg		42.2	1		12/24/13 20:32	108-05-4	
Vinyl chloride	ND ug/kg		8.4	1		12/24/13 20:32	75-01-4	
Xylene (Total)	ND ug/kg		8.4	1		12/24/13 20:32	1330-20-7	
m&p-Xylene	ND ug/kg		8.4	1		12/24/13 20:32	179601-23-1	
o-Xylene	ND ug/kg		4.2	1		12/24/13 20:32	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		12/24/13 20:32	2037-26-5	
4-Bromofluorobenzene (S)	89 %		70-130	1		12/24/13 20:32	460-00-4	
1,2-Dichloroethane-d4 (S)	110 %		70-132	1		12/24/13 20:32	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>21.2 %</b>		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-9      Lab ID: 92184127007      Collected: 12/18/13 17:00      Received: 12/19/13 14:00      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						
Acenaphthene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	83-32-9	
Acenaphthylene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	208-96-8	
Aniline	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	62-53-3	
Anthracene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	120-12-7	
Benzo(a)anthracene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	56-55-3	
Benzo(a)pyrene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	207-08-9	
Benzoic Acid	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	65-85-0	
Benzyl alcohol	ND ug/kg		984	1	12/20/13 10:30	12/23/13 21:56	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	101-55-3	
Butylbenzylphthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		984	1	12/20/13 10:30	12/23/13 21:56	59-50-7	
4-Chloroaniline	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	108-60-1	
2-Chloronaphthalene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	91-58-7	
2-Chlorophenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	7005-72-3	
Chrysene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	53-70-3	
Dibenzofuran	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	91-94-1	
2,4-Dichlorophenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	120-83-2	
Diethylphthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	84-66-2	
2,4-Dimethylphenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	105-67-9	
Dimethylphthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	131-11-3	
Di-n-butylphthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		984	1	12/20/13 10:30	12/23/13 21:56	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	606-20-2	
Di-n-octylphthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	117-81-7	
Fluoranthene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	206-44-0	
Fluorene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	87-68-3	
Hexachlorobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	77-47-4	
Hexachloroethane	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-9**      Lab ID: **92184127007**      Collected: 12/18/13 17:00      Received: 12/19/13 14:00      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						
Isophorone	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	78-59-1	
1-Methylnaphthalene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	90-12-0	
2-Methylnaphthalene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56		
Naphthalene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	91-20-3	
2-Nitroaniline	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	88-74-4	
3-Nitroaniline	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	99-09-2	
4-Nitroaniline	ND ug/kg		984	1	12/20/13 10:30	12/23/13 21:56	100-01-6	
Nitrobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	98-95-3	
2-Nitrophenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	88-75-5	
4-Nitrophenol	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	86-30-6	
Pentachlorophenol	ND ug/kg		2460	1	12/20/13 10:30	12/23/13 21:56	87-86-5	
Phenanthrene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	85-01-8	
Phenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	108-95-2	
Pyrene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		492	1	12/20/13 10:30	12/23/13 21:56	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	38 %		23-110	1	12/20/13 10:30	12/23/13 21:56	4165-60-0	
2-Fluorobiphenyl (S)	35 %		30-110	1	12/20/13 10:30	12/23/13 21:56	321-60-8	
Terphenyl-d14 (S)	46 %		28-110	1	12/20/13 10:30	12/23/13 21:56	1718-51-0	
Phenol-d6 (S)	42 %		22-110	1	12/20/13 10:30	12/23/13 21:56	13127-88-3	
2-Fluorophenol (S)	40 %		13-110	1	12/20/13 10:30	12/23/13 21:56	367-12-4	
2,4,6-Tribromophenol (S)	34 %		27-110	1	12/20/13 10:30	12/23/13 21:56	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		122	1		12/24/13 20:52	67-64-1	
Benzene	ND ug/kg		6.1	1		12/24/13 20:52	71-43-2	
Bromobenzene	ND ug/kg		6.1	1		12/24/13 20:52	108-86-1	
Bromochloromethane	ND ug/kg		6.1	1		12/24/13 20:52	74-97-5	
Bromodichloromethane	ND ug/kg		6.1	1		12/24/13 20:52	75-27-4	
Bromoform	ND ug/kg		6.1	1		12/24/13 20:52	75-25-2	
Bromomethane	ND ug/kg		12.2	1		12/24/13 20:52	74-83-9	
2-Butanone (MEK)	ND ug/kg		122	1		12/24/13 20:52	78-93-3	
n-Butylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	104-51-8	
sec-Butylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	135-98-8	
tert-Butylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	98-06-6	
Carbon tetrachloride	ND ug/kg		6.1	1		12/24/13 20:52	56-23-5	
Chlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	108-90-7	
Chloroethane	ND ug/kg		12.2	1		12/24/13 20:52	75-00-3	
Chloroform	ND ug/kg		6.1	1		12/24/13 20:52	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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**Sample: S-6-9**      **Lab ID: 92184127007**      Collected: 12/18/13 17:00      Received: 12/19/13 14:00      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						
Chloromethane	ND ug/kg		12.2	1		12/24/13 20:52	74-87-3	
2-Chlorotoluene	ND ug/kg		6.1	1		12/24/13 20:52	95-49-8	
4-Chlorotoluene	ND ug/kg		6.1	1		12/24/13 20:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		6.1	1		12/24/13 20:52	96-12-8	
Dibromochloromethane	ND ug/kg		6.1	1		12/24/13 20:52	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		6.1	1		12/24/13 20:52	106-93-4	
Dibromomethane	ND ug/kg		6.1	1		12/24/13 20:52	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	106-46-7	
Dichlorodifluoromethane	ND ug/kg		12.2	1		12/24/13 20:52	75-71-8	
1,1-Dichloroethane	ND ug/kg		6.1	1		12/24/13 20:52	75-34-3	
1,2-Dichloroethane	ND ug/kg		6.1	1		12/24/13 20:52	107-06-2	
1,1-Dichloroethene	ND ug/kg		6.1	1		12/24/13 20:52	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		6.1	1		12/24/13 20:52	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		6.1	1		12/24/13 20:52	156-60-5	
1,2-Dichloropropane	ND ug/kg		6.1	1		12/24/13 20:52	78-87-5	
1,3-Dichloropropane	ND ug/kg		6.1	1		12/24/13 20:52	142-28-9	
2,2-Dichloropropane	ND ug/kg		6.1	1		12/24/13 20:52	594-20-7	
1,1-Dichloropropene	ND ug/kg		6.1	1		12/24/13 20:52	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		6.1	1		12/24/13 20:52	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		6.1	1		12/24/13 20:52	10061-02-6	
Diisopropyl ether	ND ug/kg		6.1	1		12/24/13 20:52	108-20-3	
Ethylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		6.1	1		12/24/13 20:52	87-68-3	
2-Hexanone	ND ug/kg		60.9	1		12/24/13 20:52	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		6.1	1		12/24/13 20:52	98-82-8	
p-Isopropyltoluene	ND ug/kg		6.1	1		12/24/13 20:52	99-87-6	
Methylene Chloride	ND ug/kg		24.4	1		12/24/13 20:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		60.9	1		12/24/13 20:52	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		6.1	1		12/24/13 20:52	1634-04-4	
Naphthalene	ND ug/kg		6.1	1		12/24/13 20:52	91-20-3	
n-Propylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	103-65-1	
Styrene	ND ug/kg		6.1	1		12/24/13 20:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		6.1	1		12/24/13 20:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		6.1	1		12/24/13 20:52	79-34-5	
Tetrachloroethene	ND ug/kg		6.1	1		12/24/13 20:52	127-18-4	
Toluene	ND ug/kg		6.1	1		12/24/13 20:52	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		6.1	1		12/24/13 20:52	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		6.1	1		12/24/13 20:52	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		6.1	1		12/24/13 20:52	79-00-5	
Trichloroethene	ND ug/kg		6.1	1		12/24/13 20:52	79-01-6	
Trichlorofluoromethane	ND ug/kg		6.1	1		12/24/13 20:52	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		6.1	1		12/24/13 20:52	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-9** Lab ID: **92184127007** Collected: 12/18/13 17:00 Received: 12/19/13 14:00 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							
1,3,5-Trimethylbenzene	ND ug/kg		6.1	1		12/24/13 20:52	108-67-8	
Vinyl acetate	ND ug/kg		60.9	1		12/24/13 20:52	108-05-4	
Vinyl chloride	ND ug/kg		12.2	1		12/24/13 20:52	75-01-4	
Xylene (Total)	ND ug/kg		12.2	1		12/24/13 20:52	1330-20-7	
m&p-Xylene	ND ug/kg		12.2	1		12/24/13 20:52	179601-23-1	
o-Xylene	ND ug/kg		6.1	1		12/24/13 20:52	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		12/24/13 20:52	2037-26-5	
4-Bromofluorobenzene (S)	102 %		70-130	1		12/24/13 20:52	460-00-4	
1,2-Dichloroethane-d4 (S)	116 %		70-132	1		12/24/13 20:52	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>32.9 %</b>		0.10	1		12/20/13 16:54		

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-1**      Lab ID: **92184127008**      Collected: 12/18/13 11:50      Received: 12/19/13 14:00      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>10.3</b> mg/kg		6.2	1	12/20/13 13:12	12/24/13 11:43	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	88 %		41-119	1	12/20/13 13:12	12/24/13 11:43	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	<b>16.4</b> mg/kg		5.6	1	12/30/13 14:50	12/31/13 00:16	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	104 %		70-167	1	12/30/13 14:50	12/31/13 00:16	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>19.9</b> %		0.10	1			12/20/13 16:54	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-2**      Lab ID: **92184127009**      Collected: 12/18/13 12:20      Received: 12/19/13 14:00      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>7.5</b> mg/kg		5.8	1	12/20/13 13:12	12/24/13 11:43	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	81 %		41-119	1	12/20/13 13:12	12/24/13 11:43	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	5.9	1	12/30/13 14:50	12/31/13 00:39	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	105 %		70-167	1	12/30/13 14:50	12/31/13 00:39	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>14.2</b> %		0.10	1			12/20/13 16:55	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-3** Lab ID: **92184127010** Collected: 12/18/13 12:35 Received: 12/19/13 14:00 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>79.5</b> mg/kg		5.9	1	12/20/13 13:12	12/24/13 12:06	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	87 %		41-119	1	12/20/13 13:12	12/24/13 12:06	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	5.3	1	12/30/13 14:50	12/31/13 01:03	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	104 %		70-167	1	12/30/13 14:50	12/31/13 01:03	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>15.0</b> %		0.10	1			12/20/13 16:55	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-4**      Lab ID: **92184127011**      Collected: 12/18/13 15:20      Received: 12/19/13 14:00      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>8.5</b> mg/kg		6.1	1	12/20/13 13:12	12/24/13 12:06	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	84 %		41-119	1	12/20/13 13:12	12/24/13 12:06	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	5.9	1	12/30/13 14:50	12/31/13 01:26	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	105 %		70-167	1	12/30/13 14:50	12/31/13 01:26	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>18.0</b> %		0.10	1			12/20/13 16:55	

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## ANALYTICAL RESULTS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**Sample: S-6-8**      Lab ID: **92184127012**      Collected: 12/18/13 16:45      Received: 12/19/13 14:00      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	12/20/13 13:12	12/24/13 12:29	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	95 %		41-119	1	12/20/13 13:12	12/24/13 12:29	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.7	1	12/30/13 14:50	12/31/13 01:49	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	101 %		70-167	1	12/30/13 14:50	12/31/13 01:49	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	20.5 %		0.10	1			12/20/13 16:55	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch:	GCV/7658	Analysis Method:	EPA 8015 Modified
QC Batch Method:	EPA 5035A/5030B	Analysis Description:	Gasoline Range Organics
Associated Lab Samples:	92184127008, 92184127009, 92184127010, 92184127011, 92184127012		

METHOD BLANK: 1114325 Matrix: Solid

Associated Lab Samples: 92184127008, 92184127009, 92184127010, 92184127011, 92184127012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	12/30/13 20:25	
4-Bromofluorobenzene (S)	%	103	70-167	12/30/13 20:25	

LABORATORY CONTROL SAMPLE: 1114326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	49.7	49.5	100	70-165	
4-Bromofluorobenzene (S)	%			103	70-167	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1114327 1114328

Parameter	Units	92184283001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gasoline Range Organics	mg/kg	ND	34.7	34.7	38.2	38.4	110	111	47-187	1	
4-Bromofluorobenzene (S)	%						107	102	70-167		

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch:	MSV/25343	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184127001		

METHOD BLANK: 1111846                                  Matrix: Solid

Associated Lab Samples: 92184127001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,1,1-Trichloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,1,2-Trichloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,1-Dichloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,1-Dichloroethene	ug/kg	ND	4.9	12/23/13 17:21	
1,1-Dichloropropene	ug/kg	ND	4.9	12/23/13 17:21	
1,2,3-Trichlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,2,3-Trichloropropane	ug/kg	ND	4.9	12/23/13 17:21	
1,2,4-Trichlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,2,4-Trimethylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.9	12/23/13 17:21	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.9	12/23/13 17:21	
1,2-Dichlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,2-Dichloroethane	ug/kg	ND	4.9	12/23/13 17:21	
1,2-Dichloropropane	ug/kg	ND	4.9	12/23/13 17:21	
1,3,5-Trimethylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,3-Dichlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
1,3-Dichloropropane	ug/kg	ND	4.9	12/23/13 17:21	
1,4-Dichlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
2,2-Dichloropropane	ug/kg	ND	4.9	12/23/13 17:21	
2-Butanone (MEK)	ug/kg	ND	97.8	12/23/13 17:21	
2-Chlorotoluene	ug/kg	ND	4.9	12/23/13 17:21	
2-Hexanone	ug/kg	ND	48.9	12/23/13 17:21	
4-Chlorotoluene	ug/kg	ND	4.9	12/23/13 17:21	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	48.9	12/23/13 17:21	
Acetone	ug/kg	ND	97.8	12/23/13 17:21	
Benzene	ug/kg	ND	4.9	12/23/13 17:21	
Bromobenzene	ug/kg	ND	4.9	12/23/13 17:21	
Bromochloromethane	ug/kg	ND	4.9	12/23/13 17:21	
Bromodichloromethane	ug/kg	ND	4.9	12/23/13 17:21	
Bromoform	ug/kg	ND	4.9	12/23/13 17:21	
Bromomethane	ug/kg	ND	9.8	12/23/13 17:21	
Carbon tetrachloride	ug/kg	ND	4.9	12/23/13 17:21	
Chlorobenzene	ug/kg	ND	4.9	12/23/13 17:21	
Chloroethane	ug/kg	ND	9.8	12/23/13 17:21	
Chloroform	ug/kg	ND	4.9	12/23/13 17:21	
Chloromethane	ug/kg	ND	9.8	12/23/13 17:21	
cis-1,2-Dichloroethene	ug/kg	ND	4.9	12/23/13 17:21	
cis-1,3-Dichloropropene	ug/kg	ND	4.9	12/23/13 17:21	
Dibromochloromethane	ug/kg	ND	4.9	12/23/13 17:21	
Dibromomethane	ug/kg	ND	4.9	12/23/13 17:21	
Dichlorodifluoromethane	ug/kg	ND	9.8	12/23/13 17:21	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

METHOD BLANK: 1111846

Matrix: Solid

Associated Lab Samples: 92184127001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	4.9	12/23/13 17:21	
Ethylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
Hexachloro-1,3-butadiene	ug/kg	ND	4.9	12/23/13 17:21	
Isopropylbenzene (Cumene)	ug/kg	ND	4.9	12/23/13 17:21	
m&p-Xylene	ug/kg	ND	9.8	12/23/13 17:21	
Methyl-tert-butyl ether	ug/kg	ND	4.9	12/23/13 17:21	
Methylene Chloride	ug/kg	ND	19.6	12/23/13 17:21	
n-Butylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
n-Propylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
Naphthalene	ug/kg	ND	4.9	12/23/13 17:21	
o-Xylene	ug/kg	ND	4.9	12/23/13 17:21	
p-Isopropyltoluene	ug/kg	ND	4.9	12/23/13 17:21	
sec-Butylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
Styrene	ug/kg	ND	4.9	12/23/13 17:21	
tert-Butylbenzene	ug/kg	ND	4.9	12/23/13 17:21	
Tetrachloroethene	ug/kg	ND	4.9	12/23/13 17:21	
Toluene	ug/kg	ND	4.9	12/23/13 17:21	
trans-1,2-Dichloroethene	ug/kg	ND	4.9	12/23/13 17:21	
trans-1,3-Dichloropropene	ug/kg	ND	4.9	12/23/13 17:21	
Trichloroethene	ug/kg	ND	4.9	12/23/13 17:21	
Trichlorofluoromethane	ug/kg	ND	4.9	12/23/13 17:21	
Vinyl acetate	ug/kg	ND	48.9	12/23/13 17:21	
Vinyl chloride	ug/kg	ND	9.8	12/23/13 17:21	
Xylene (Total)	ug/kg	ND	9.8	12/23/13 17:21	
1,2-Dichloroethane-d4 (S)	%	122	70-132	12/23/13 17:21	
4-Bromofluorobenzene (S)	%	102	70-130	12/23/13 17:21	
Toluene-d8 (S)	%	100	70-130	12/23/13 17:21	

LABORATORY CONTROL SAMPLE: 1111847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.4	53.7	107	70-131	
1,1,1-Trichloroethane	ug/kg	50.4	58.9	117	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	50.4	60.8	121	70-130	
1,1,2-Trichloroethane	ug/kg	50.4	54.2	107	70-132	
1,1-Dichloroethane	ug/kg	50.4	56.1	111	70-143	
1,1-Dichloroethene	ug/kg	50.4	55.6	110	70-137	
1,1-Dichloropropene	ug/kg	50.4	57.0	113	70-135	
1,2,3-Trichlorobenzene	ug/kg	50.4	50.5	100	69-153	
1,2,3-Trichloropropane	ug/kg	50.4	62.0	123	70-130	
1,2,4-Trichlorobenzene	ug/kg	50.4	47.4	94	55-171	
1,2,4-Trimethylbenzene	ug/kg	50.4	53.5	106	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	50.4	60.2	120	68-141	
1,2-Dibromoethane (EDB)	ug/kg	50.4	58.7	116	70-130	
1,2-Dichlorobenzene	ug/kg	50.4	49.7	99	70-140	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1111847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	50.4	65.5	130	70-137	
1,2-Dichloropropane	ug/kg	50.4	52.3	104	70-133	
1,3,5-Trimethylbenzene	ug/kg	50.4	52.3	104	70-143	
1,3-Dichlorobenzene	ug/kg	50.4	47.5	94	70-144	
1,3-Dichloropropane	ug/kg	50.4	60.1	119	70-132	
1,4-Dichlorobenzene	ug/kg	50.4	48.3	96	70-142	
2,2-Dichloropropane	ug/kg	50.4	56.6	112	68-152	
2-Butanone (MEK)	ug/kg	101	114	113	70-149	
2-Chlorotoluene	ug/kg	50.4	49.5	98	70-141	
2-Hexanone	ug/kg	101	114	113	70-149	
4-Chlorotoluene	ug/kg	50.4	52.0	103	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	109	108	70-153	
Acetone	ug/kg	101	120	119	70-157	
Benzene	ug/kg	50.4	51.7	103	70-130	
Bromobenzene	ug/kg	50.4	54.1	107	70-141	
Bromochloromethane	ug/kg	50.4	51.9	103	70-149	
Bromodichloromethane	ug/kg	50.4	54.4	108	70-130	
Bromoform	ug/kg	50.4	53.4	106	70-131	
Bromomethane	ug/kg	50.4	65.6	130	64-136	
Carbon tetrachloride	ug/kg	50.4	52.3	104	70-154	
Chlorobenzene	ug/kg	50.4	52.9	105	70-135	
Chloroethane	ug/kg	50.4	57.1	113	68-151	
Chloroform	ug/kg	50.4	56.8	113	70-130	
Chloromethane	ug/kg	50.4	59.2	117	70-132	
cis-1,2-Dichloroethene	ug/kg	50.4	56.6	112	70-140	
cis-1,3-Dichloropropene	ug/kg	50.4	53.0	105	70-137	
Dibromochloromethane	ug/kg	50.4	56.1	111	70-130	
Dibromomethane	ug/kg	50.4	55.1	109	70-136	
Dichlorodifluoromethane	ug/kg	50.4	54.7	109	36-148	
Diisopropyl ether	ug/kg	50.4	51.4	102	70-139	
Ethylbenzene	ug/kg	50.4	52.0	103	70-137	
Hexachloro-1,3-butadiene	ug/kg	50.4	52.2	103	70-145	
Isopropylbenzene (Cumene)	ug/kg	50.4	54.3	108	70-141	
m&p-Xylene	ug/kg	101	107	106	70-140	
Methyl-tert-butyl ether	ug/kg	50.4	61.2	121	45-150	
Methylene Chloride	ug/kg	50.4	53.8	107	70-133	
n-Butylbenzene	ug/kg	50.4	50.4	100	65-155	
n-Propylbenzene	ug/kg	50.4	51.6	102	70-148	
Naphthalene	ug/kg	50.4	51.9	103	70-148	
o-Xylene	ug/kg	50.4	53.0	105	70-141	
p-Isopropyltoluene	ug/kg	50.4	50.0	99	70-148	
sec-Butylbenzene	ug/kg	50.4	52.8	105	70-145	
Styrene	ug/kg	50.4	53.2	106	70-138	
tert-Butylbenzene	ug/kg	50.4	51.2	102	70-143	
Tetrachloroethene	ug/kg	50.4	49.7	99	70-140	
Toluene	ug/kg	50.4	49.5	98	70-130	
trans-1,2-Dichloroethene	ug/kg	50.4	54.8	109	70-136	
trans-1,3-Dichloropropene	ug/kg	50.4	55.3	110	70-138	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**LABORATORY CONTROL SAMPLE:** 1111847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	50.4	46.5	92	70-132	
Trichlorofluoromethane	ug/kg	50.4	65.5	130	69-134	
Vinyl acetate	ug/kg	101	106	105	24-161	
Vinyl chloride	ug/kg	50.4	55.7	110	55-140	
Xylene (Total)	ug/kg	151	160	106	70-141	
1,2-Dichloroethane-d4 (S)	%			125	70-132	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			98	70-130	

**MATRIX SPIKE SAMPLE:** 1112266

Parameter	Units	92184090001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	42.9	37.1	86	49-180	
Benzene	ug/kg	ND	42.9	37.3	87	50-166	
Chlorobenzene	ug/kg	ND	42.9	35.2	82	43-169	
Toluene	ug/kg	ND	42.9	32.4	74	52-163	
Trichloroethene	ug/kg	ND	42.9	32.3	75	49-167	
1,2-Dichloroethane-d4 (S)	%				104	70-132	
4-Bromofluorobenzene (S)	%				96	70-130	
Toluene-d8 (S)	%				99	70-130	

**SAMPLE DUPLICATE:** 1112265

Parameter	Units	92184006024 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		
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		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

SAMPLE DUPLICATE: 1112265

Parameter	Units	92184006024	Dup Result	RPD	Qualifiers
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	228	96.2	81	A+,R1
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		
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	106	16	
4-Bromofluorobenzene (S)	%	87	92	8	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

SAMPLE DUPLICATE: 1112265

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	98	96	14	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch:	MSV/25355	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184127002, 92184127003, 92184127004, 92184127005, 92184127006, 92184127007		

METHOD BLANK:	1112341	Matrix:	Solid
Associated Lab Samples:	92184127002, 92184127003, 92184127004, 92184127005, 92184127006, 92184127007		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,1-Trichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,2-Trichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,3-Trichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,3-Trichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,2,4-Trichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,4-Trimethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,3,5-Trimethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,3-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,3-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,4-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
2,2-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
2-Butanone (MEK)	ug/kg	ND	112	12/24/13 11:24	
2-Chlorotoluene	ug/kg	ND	5.6	12/24/13 11:24	
2-Hexanone	ug/kg	ND	56.2	12/24/13 11:24	
4-Chlorotoluene	ug/kg	ND	5.6	12/24/13 11:24	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	56.2	12/24/13 11:24	
Acetone	ug/kg	ND	112	12/24/13 11:24	
Benzene	ug/kg	ND	5.6	12/24/13 11:24	
Bromobenzene	ug/kg	ND	5.6	12/24/13 11:24	
Bromochloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Bromodichloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Bromoform	ug/kg	ND	5.6	12/24/13 11:24	
Bromomethane	ug/kg	ND	11.2	12/24/13 11:24	
Carbon tetrachloride	ug/kg	ND	5.6	12/24/13 11:24	
Chlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
Chloroethane	ug/kg	ND	11.2	12/24/13 11:24	
Chloroform	ug/kg	ND	5.6	12/24/13 11:24	
Chloromethane	ug/kg	ND	11.2	12/24/13 11:24	
cis-1,2-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
cis-1,3-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
Dibromochloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Dibromomethane	ug/kg	ND	5.6	12/24/13 11:24	
Dichlorodifluoromethane	ug/kg	ND	11.2	12/24/13 11:24	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

METHOD BLANK: 1112341

Matrix: Solid

Associated Lab Samples: 92184127002, 92184127003, 92184127004, 92184127005, 92184127006, 92184127007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.6	12/24/13 11:24	
Ethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Hexachloro-1,3-butadiene	ug/kg	ND	5.6	12/24/13 11:24	
Isopropylbenzene (Cumene)	ug/kg	ND	5.6	12/24/13 11:24	
m&p-Xylene	ug/kg	ND	11.2	12/24/13 11:24	
Methyl-tert-butyl ether	ug/kg	ND	5.6	12/24/13 11:24	
Methylene Chloride	ug/kg	ND	22.5	12/24/13 11:24	
n-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
n-Propylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Naphthalene	ug/kg	ND	5.6	12/24/13 11:24	
o-Xylene	ug/kg	ND	5.6	12/24/13 11:24	
p-Isopropyltoluene	ug/kg	ND	5.6	12/24/13 11:24	
sec-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Styrene	ug/kg	ND	5.6	12/24/13 11:24	
tert-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Tetrachloroethene	ug/kg	ND	5.6	12/24/13 11:24	
Toluene	ug/kg	ND	5.6	12/24/13 11:24	
trans-1,2-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
trans-1,3-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
Trichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
Trichlorofluoromethane	ug/kg	ND	5.6	12/24/13 11:24	
Vinyl acetate	ug/kg	ND	56.2	12/24/13 11:24	
Vinyl chloride	ug/kg	ND	11.2	12/24/13 11:24	
Xylene (Total)	ug/kg	ND	11.2	12/24/13 11:24	
1,2-Dichloroethane-d4 (S)	%	110	70-132	12/24/13 11:24	
4-Bromofluorobenzene (S)	%	100	70-130	12/24/13 11:24	
Toluene-d8 (S)	%	99	70-130	12/24/13 11:24	

LABORATORY CONTROL SAMPLE: 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	51.7	55.1	107	70-131	
1,1,1-Trichloroethane	ug/kg	51.7	56.6	110	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	51.7	62.7	121	70-130	
1,1,2-Trichloroethane	ug/kg	51.7	56.0	108	70-132	
1,1-Dichloroethane	ug/kg	51.7	59.7	116	70-143	
1,1-Dichloroethene	ug/kg	51.7	58.2	113	70-137	
1,1-Dichloropropene	ug/kg	51.7	61.4	119	70-135	
1,2,3-Trichlorobenzene	ug/kg	51.7	53.5	104	69-153	
1,2,3-Trichloropropane	ug/kg	51.7	63.4	123	70-130	
1,2,4-Trichlorobenzene	ug/kg	51.7	51.3	99	55-171	
1,2,4-Trimethylbenzene	ug/kg	51.7	54.7	106	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	51.7	55.8	108	68-141	
1,2-Dibromoethane (EDB)	ug/kg	51.7	61.3	119	70-130	
1,2-Dichlorobenzene	ug/kg	51.7	50.5	98	70-140	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	51.7	61.2	118	70-137	
1,2-Dichloropropane	ug/kg	51.7	54.8	106	70-133	
1,3,5-Trimethylbenzene	ug/kg	51.7	53.7	104	70-143	
1,3-Dichlorobenzene	ug/kg	51.7	49.4	96	70-144	
1,3-Dichloropropane	ug/kg	51.7	63.6	123	70-132	
1,4-Dichlorobenzene	ug/kg	51.7	50.6	98	70-142	
2,2-Dichloropropane	ug/kg	51.7	57.7	112	68-152	
2-Butanone (MEK)	ug/kg	103	131	127	70-149	
2-Chlorotoluene	ug/kg	51.7	49.8	96	70-141	
2-Hexanone	ug/kg	103	123	119	70-149	
4-Chlorotoluene	ug/kg	51.7	54.3	105	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	103	113	109	70-153	
Acetone	ug/kg	103	119	115	70-157	
Benzene	ug/kg	51.7	55.1	107	70-130	
Bromobenzene	ug/kg	51.7	55.3	107	70-141	
Bromochloromethane	ug/kg	51.7	52.4	101	70-149	
Bromodichloromethane	ug/kg	51.7	52.8	102	70-130	
Bromoform	ug/kg	51.7	53.1	103	70-131	
Bromomethane	ug/kg	51.7	55.4	107	64-136	
Carbon tetrachloride	ug/kg	51.7	49.0	95	70-154	
Chlorobenzene	ug/kg	51.7	55.4	107	70-135	
Chloroethane	ug/kg	51.7	57.6	112	68-151	
Chloroform	ug/kg	51.7	57.3	111	70-130	
Chloromethane	ug/kg	51.7	61.1	118	70-132	
cis-1,2-Dichloroethene	ug/kg	51.7	58.7	114	70-140	
cis-1,3-Dichloropropene	ug/kg	51.7	54.0	105	70-137	
Dibromochloromethane	ug/kg	51.7	57.1	111	70-130	
Dibromomethane	ug/kg	51.7	54.4	105	70-136	
Dichlorodifluoromethane	ug/kg	51.7	43.3	84	36-148	
Diisopropyl ether	ug/kg	51.7	59.0	114	70-139	
Ethylbenzene	ug/kg	51.7	54.1	105	70-137	
Hexachloro-1,3-butadiene	ug/kg	51.7	51.4	99	70-145	
Isopropylbenzene (Cumene)	ug/kg	51.7	56.5	109	70-141	
m&p-Xylene	ug/kg	103	110	106	70-140	
Methyl-tert-butyl ether	ug/kg	51.7	63.9	124	45-150	
Methylene Chloride	ug/kg	51.7	53.7	104	70-133	
n-Butylbenzene	ug/kg	51.7	54.7	106	65-155	
n-Propylbenzene	ug/kg	51.7	54.3	105	70-148	
Naphthalene	ug/kg	51.7	55.5	107	70-148	
o-Xylene	ug/kg	51.7	54.6	106	70-141	
p-Isopropyltoluene	ug/kg	51.7	51.0	99	70-148	
sec-Butylbenzene	ug/kg	51.7	54.5	106	70-145	
Styrene	ug/kg	51.7	55.3	107	70-138	
tert-Butylbenzene	ug/kg	51.7	50.9	99	70-143	
Tetrachloroethene	ug/kg	51.7	52.2	101	70-140	
Toluene	ug/kg	51.7	49.2	95	70-130	
trans-1,2-Dichloroethene	ug/kg	51.7	59.0	114	70-136	
trans-1,3-Dichloropropene	ug/kg	51.7	55.8	108	70-138	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

**LABORATORY CONTROL SAMPLE:** 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	51.7	49.2	95	70-132	
Trichlorofluoromethane	ug/kg	51.7	60.9	118	69-134	
Vinyl acetate	ug/kg	103	140	135	24-161	
Vinyl chloride	ug/kg	51.7	54.5	105	55-140	
Xylene (Total)	ug/kg	155	164	106	70-141	
1,2-Dichloroethane-d4 (S)	%			120	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

**MATRIX SPIKE SAMPLE:** 1112885

Parameter	Units	92184377003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg		ND	31.7	35.8	113	49-180
Benzene	ug/kg		ND	31.7	33.4	106	50-166
Chlorobenzene	ug/kg		ND	31.7	30.2	95	43-169
Toluene	ug/kg		ND	31.7	27.6	87	52-163
Trichloroethene	ug/kg		ND	31.7	28.7	91	49-167
1,2-Dichloroethane-d4 (S)	%				118	70-132	
4-Bromofluorobenzene (S)	%				86	70-130	
Toluene-d8 (S)	%				93	70-130	

**SAMPLE DUPLICATE:** 1112884

Parameter	Units	92184127002 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	
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	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

SAMPLE DUPLICATE: 1112884

Parameter	Units	Result	Dup Result	RPD	Qualifiers
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	218	170	25	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	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		IO
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		
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)	%	118	143	21	S2
4-Bromofluorobenzene (S)	%	92	83	8	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

SAMPLE DUPLICATE: 1112884

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	96	92	2	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch: OEXT/25288 Analysis Method: EPA 8015 Modified

QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV

Associated Lab Samples: 92184127008, 92184127009, 92184127010, 92184127011, 92184127012

METHOD BLANK: 1110449 Matrix: Solid

Associated Lab Samples: 92184127008, 92184127009, 92184127010, 92184127011, 92184127012

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Diesel Components	mg/kg	ND	5.0	12/24/13 10:34	
n-Pentacosane (S)	%	97	41-119	12/24/13 10:34	

LABORATORY CONTROL SAMPLE: 1110450

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Diesel Components	mg/kg	66.7	52.6	79	49-113	
n-Pentacosane (S)	%			85	41-119	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1110451 1110452

Parameter	Units	92184127012	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Qual
		Result	Spike	Spike								
Diesel Components	mg/kg	ND	83.9	83.9	61.5	65.6	69	74	10-146	7		
n-Pentacosane (S)	%						81	93	41-119			

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch:	OEXT/25287	Analysis Method:	EPA 8270
QC Batch Method:	EPA 3546	Analysis Description:	8270 Solid MSSV Microwave
Associated Lab Samples:	92184127001, 92184127002, 92184127003, 92184127004, 92184127006, 92184127007		

METHOD BLANK: 1110353	Matrix: Solid
Associated Lab Samples:	92184127001, 92184127002, 92184127003, 92184127004, 92184127006, 92184127007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,2-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,3-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,4-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1-Methylnaphthalene	ug/kg	ND	330	12/23/13 17:11	
2,4,5-Trichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4,6-Trichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dimethylphenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dinitrophenol	ug/kg	ND	1650	12/23/13 17:11	
2,4-Dinitrotoluene	ug/kg	ND	330	12/23/13 17:11	
2,6-Dinitrotoluene	ug/kg	ND	330	12/23/13 17:11	
2-Chloronaphthalene	ug/kg	ND	330	12/23/13 17:11	
2-Chlorophenol	ug/kg	ND	330	12/23/13 17:11	
2-Methylnaphthalene	ug/kg	ND	330	12/23/13 17:11	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	12/23/13 17:11	
2-Nitroaniline	ug/kg	ND	1650	12/23/13 17:11	
2-Nitrophenol	ug/kg	ND	330	12/23/13 17:11	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	12/23/13 17:11	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	12/23/13 17:11	
3-Nitroaniline	ug/kg	ND	1650	12/23/13 17:11	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	12/23/13 17:11	
4-Bromophenylphenyl ether	ug/kg	ND	330	12/23/13 17:11	
4-Chloro-3-methylphenol	ug/kg	ND	660	12/23/13 17:11	
4-Chloroaniline	ug/kg	ND	1650	12/23/13 17:11	
4-Chlorophenylphenyl ether	ug/kg	ND	330	12/23/13 17:11	
4-Nitroaniline	ug/kg	ND	660	12/23/13 17:11	
4-Nitrophenol	ug/kg	ND	1650	12/23/13 17:11	
Acenaphthene	ug/kg	ND	330	12/23/13 17:11	
Acenaphthylene	ug/kg	ND	330	12/23/13 17:11	
Aniline	ug/kg	ND	330	12/23/13 17:11	
Anthracene	ug/kg	ND	330	12/23/13 17:11	
Benzo(a)anthracene	ug/kg	ND	330	12/23/13 17:11	
Benzo(a)pyrene	ug/kg	ND	330	12/23/13 17:11	
Benzo(b)fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Benzo(g,h,i)perylene	ug/kg	ND	330	12/23/13 17:11	
Benzo(k)fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Benzoic Acid	ug/kg	ND	1650	12/23/13 17:11	
Benzyl alcohol	ug/kg	ND	660	12/23/13 17:11	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	12/23/13 17:11	
bis(2-Chloroethyl) ether	ug/kg	ND	330	12/23/13 17:11	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	12/23/13 17:11	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	12/23/13 17:11	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

METHOD BLANK: 1110353

Matrix: Solid

Associated Lab Samples: 92184127001, 92184127002, 92184127003, 92184127004, 92184127006, 92184127007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	12/23/13 17:11	
Chrysene	ug/kg	ND	330	12/23/13 17:11	
Di-n-butylphthalate	ug/kg	ND	330	12/23/13 17:11	
Di-n-octylphthalate	ug/kg	ND	330	12/23/13 17:11	
Dibenz(a,h)anthracene	ug/kg	ND	330	12/23/13 17:11	
Dibenzofuran	ug/kg	ND	330	12/23/13 17:11	
Diethylphthalate	ug/kg	ND	330	12/23/13 17:11	
Dimethylphthalate	ug/kg	ND	330	12/23/13 17:11	
Fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Fluorene	ug/kg	ND	330	12/23/13 17:11	
Hexachloro-1,3-butadiene	ug/kg	ND	330	12/23/13 17:11	
Hexachlorobenzene	ug/kg	ND	330	12/23/13 17:11	
Hexachlorocyclopentadiene	ug/kg	ND	330	12/23/13 17:11	
Hexachloroethane	ug/kg	ND	330	12/23/13 17:11	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	12/23/13 17:11	
Isophorone	ug/kg	ND	330	12/23/13 17:11	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	12/23/13 17:11	
N-Nitrosodimethylamine	ug/kg	ND	330	12/23/13 17:11	
N-Nitrosodiphenylamine	ug/kg	ND	330	12/23/13 17:11	
Naphthalene	ug/kg	ND	330	12/23/13 17:11	
Nitrobenzene	ug/kg	ND	330	12/23/13 17:11	
Pentachlorophenol	ug/kg	ND	1650	12/23/13 17:11	
Phenanthrene	ug/kg	ND	330	12/23/13 17:11	
Phenol	ug/kg	ND	330	12/23/13 17:11	
Pyrene	ug/kg	ND	330	12/23/13 17:11	
2,4,6-Tribromophenol (S)	%	73	27-110	12/23/13 17:11	
2-Fluorobiphenyl (S)	%	76	30-110	12/23/13 17:11	
2-Fluorophenol (S)	%	80	13-110	12/23/13 17:11	
Nitrobenzene-d5 (S)	%	74	23-110	12/23/13 17:11	
Phenol-d6 (S)	%	81	22-110	12/23/13 17:11	
Terphenyl-d14 (S)	%	88	28-110	12/23/13 17:11	

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	823	49	39-101	
1,2-Dichlorobenzene	ug/kg	1670	825	49	36-110	
1,3-Dichlorobenzene	ug/kg	1670	815	49	35-110	
1,4-Dichlorobenzene	ug/kg	1670	842	51	35-110	
1-Methylnaphthalene	ug/kg	1670	898	54	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1070	64	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	901	54	45-111	
2,4-Dichlorophenol	ug/kg	1670	889	53	51-116	
2,4-Dimethylphenol	ug/kg	1670	970	58	42-103	
2,4-Dinitrophenol	ug/kg	8330	5240	63	28-103	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1320	79	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1260	76	48-112	
2-Chloronaphthalene	ug/kg	1670	812	49	44-105	
2-Chlorophenol	ug/kg	1670	944	57	36-110	
2-Methylnaphthalene	ug/kg	1670	951	57	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	983	59	39-101	
2-Nitroaniline	ug/kg	3330	2490	75	44-111	
2-Nitrophenol	ug/kg	1670	939	56	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	964	58	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2280	68	10-150	
3-Nitroaniline	ug/kg	3330	2550	77	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2560	77	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1200	72	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2000	60	43-127	
4-Chloroaniline	ug/kg	3330	1910	57	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1070	64	44-115	
4-Nitroaniline	ug/kg	3330	2580	77	37-111	
4-Nitrophenol	ug/kg	8330	6150	74	21-152	
Acenaphthene	ug/kg	1670	958	57	38-117	
Acenaphthylene	ug/kg	1670	990	59	46-107	
Aniline	ug/kg	1670	875	52	29-110	
Anthracene	ug/kg	1670	1280	77	50-110	
Benzo(a)anthracene	ug/kg	1670	1260	76	47-116	
Benzo(a)pyrene	ug/kg	1670	1410	85	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1250	75	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1250	75	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1300	78	45-117	
Benzoic Acid	ug/kg	8330	3560	43	16-110	
Benzyl alcohol	ug/kg	3330	1670	50	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	886	53	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	934	56	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	905	54	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1230	74	35-116	
Butylbenzylphthalate	ug/kg	1670	1220	73	38-110	
Chrysene	ug/kg	1670	1300	78	49-110	
Di-n-butylphthalate	ug/kg	1670	1210	73	43-109	
Di-n-octylphthalate	ug/kg	1670	1060	63	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1320	79	43-116	
Dibenzofuran	ug/kg	1670	912	55	45-106	
Diethylphthalate	ug/kg	1670	1120	67	41-114	
Dimethylphthalate	ug/kg	1670	1080	65	43-110	
Fluoranthene	ug/kg	1670	1300	78	50-114	
Fluorene	ug/kg	1670	1100	66	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	786	47	28-111	
Hexachlorobenzene	ug/kg	1670	1090	65	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	1100	66	18-119	
Hexachloroethane	ug/kg	1670	782	47	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1340	80	42-115	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Isophorone	ug/kg	1670	969	58	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	782	47	43-104	
N-Nitrosodimethylamine	ug/kg	1670	848	51	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1040	63	48-113	
Naphthalene	ug/kg	1670	939	56	41-110	
Nitrobenzene	ug/kg	1670	977	59	38-110	
Pentachlorophenol	ug/kg	3330	2330	70	32-128	
Phenanthrene	ug/kg	1670	1240	74	50-110	
Phenol	ug/kg	1670	946	57	28-106	
Pyrene	ug/kg	1670	1350	81	45-114	
2,4,6-Tribromophenol (S)	%			78	27-110	
2-Fluorobiphenyl (S)	%			55	30-110	
2-Fluorophenol (S)	%			59	13-110	
Nitrobenzene-d5 (S)	%			55	23-110	
Phenol-d6 (S)	%			60	22-110	
Terphenyl-d14 (S)	%			80	28-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1110355      1110356

Parameter	Units	92184127007		MSD		MS Result	% Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result						
1,2,4-Trichlorobenzene	ug/kg	ND	2490	2490	1320	1400	53	56	18-119	5	
1,2-Dichlorobenzene	ug/kg	ND	2490	2490	1350	1440	54	58	50-110	7	
1,3-Dichlorobenzene	ug/kg	ND	2490	2490	1330	1430	54	57	27-110	7	
1,4-Dichlorobenzene	ug/kg	ND	2490	2490	1370	1440	55	58	28-110	5	
1-Methylnaphthalene	ug/kg	ND	2490	2490	1460	1480	59	59	24-116	1	
2,4,5-Trichlorophenol	ug/kg	ND	2490	2490	1710	1800	69	73	28-110	5	
2,4,6-Trichlorophenol	ug/kg	ND	2490	2490	1450	1550	58	62	17-117	7	
2,4-Dichlorophenol	ug/kg	ND	2490	2490	1470	1590	59	64	21-128	8	
2,4-Dimethylphenol	ug/kg	ND	2490	2490	1020	1480	41	60	10-120	37	R1
2,4-Dinitrophenol	ug/kg	ND	12400	12400	8570	8830	69	71	10-107	3	
2,4-Dinitrotoluene	ug/kg	ND	2490	2490	1920	2050	77	82	36-109	7	
2,6-Dinitrotoluene	ug/kg	ND	2490	2490	1860	1950	75	79	32-110	5	
2-Chloronaphthalene	ug/kg	ND	2490	2490	1300	1330	52	54	30-107	3	
2-Chlorophenol	ug/kg	ND	2490	2490	1570	1680	63	67	14-106	7	
2-Methylnaphthalene	ug/kg	ND	2490	2490	1530	1570	62	63	10-135	2	
2-Methylphenol(o-Cresol)	ug/kg	ND	2490	2490	1320	1530	53	62	10-124	15	
2-Nitroaniline	ug/kg	ND	4970	4970	3920	4230	79	85	26-116	8	
2-Nitrophenol	ug/kg	ND	2490	2490	1580	1660	64	67	28-103	5	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	2490	2490	1290	1520	52	61	10-109	16	
3,3'-Dichlorobenzidine	ug/kg	ND	4970	4970	1830J	3370	37	68	10-150		
3-Nitroaniline	ug/kg	ND	4970	4970	3850	4400	77	88	22-110	13	
4,6-Dinitro-2-methylphenol	ug/kg	ND	4970	4970	3660	3540	74	71	13-121	3	
4-Bromophenylphenyl ether	ug/kg	ND	2490	2490	1610	1600	65	64	31-109	0	
4-Chloro-3-methylphenol	ug/kg	ND	4970	4970	3130	3550	63	71	13-128	13	
4-Chloroaniline	ug/kg	ND	4970	4970	3060	3210	62	64	18-102	5	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

Parameter	Units	92184127007		MS Spike		MSD Spike		MS Result		MSD Result		% Rec Limits	RPD	Qual
		Result	Conc.	Conc.	Result	MSD	% Rec	MSD	% Rec	MSD	% Rec			
4-Chlorophenylphenyl ether	ug/kg	ND	2490	2490	1590	1670	64	67	29-112	5				
4-Nitroaniline	ug/kg	ND	4970	4970	3930	4950	79	100	16-111	23				
4-Nitrophenol	ug/kg	ND	12400	12400	9330	11300	75	91	14-135	19				
Acenaphthene	ug/kg	ND	2490	2490	1510	1560	61	63	26-114	3				
Acenaphthylene	ug/kg	ND	2490	2490	1570	1620	63	65	32-108	3				
Aniline	ug/kg	ND	2490	2490	365J	517	15	21	10-107					
Anthracene	ug/kg	ND	2490	2490	1730	1760	70	71	32-111	1				
Benz(a)anthracene	ug/kg	ND	2490	2490	1650	1740	66	70	25-117	6				
Benz(a)pyrene	ug/kg	ND	2490	2490	1790	1850	72	74	25-106	3				
Benz(b)fluoranthene	ug/kg	ND	2490	2490	1530	1590	61	64	24-110	4				
Benz(g,h,i)perylene	ug/kg	ND	2490	2490	1590	1650	64	66	19-112	4				
Benz(k)fluoranthene	ug/kg	ND	2490	2490	1620	1650	65	66	24-114	2				
Benzoic Acid	ug/kg	ND	12400	12400	2380J	2170J	19	17	10-110					
Benzyl alcohol	ug/kg	ND	4970	4970	2930	3010	59	61	24-106	3				
bis(2-Chloroethoxy)methane	ug/kg	ND	2490	2490	1510	1550	61	62	13-119	3				
bis(2-Chloroethyl) ether	ug/kg	ND	2490	2490	1450	1450	58	58	10-134	0				
bis(2-Chloroisopropyl) ether	ug/kg	ND	2490	2490	1520	1540	61	62	10-113	1				
bis(2-Ethylhexyl)phthalate	ug/kg	ND	2490	2490	1660	1670	67	67	10-125	1				
Butylbenzylphthalate	ug/kg	ND	2490	2490	1670	1680	67	68	18-110	1				
Chrysene	ug/kg	ND	2490	2490	1680	1780	68	72	30-110	6				
Di-n-butylphthalate	ug/kg	ND	2490	2490	1630	1670	66	67	19-112	3				
Di-n-octylphthalate	ug/kg	ND	2490	2490	1550	1630	63	65	17-105	5				
Dibenz(a,h)anthracene	ug/kg	ND	2490	2490	1670	1750	67	70	23-111	4				
Dibenzofuran	ug/kg	ND	2490	2490	1410	1450	57	58	35-103	3				
Diethylphthalate	ug/kg	ND	2490	2490	1570	1630	63	66	27-113	4				
Dimethylphthalate	ug/kg	ND	2490	2490	1550	1590	62	64	26-111	3				
Fluoranthene	ug/kg	ND	2490	2490	1810	1970	73	79	33-109	8				
Fluorene	ug/kg	ND	2490	2490	1650	1730	66	70	32-113	5				
Hexachloro-1,3-butadiene	ug/kg	ND	2490	2490	1290	1310	52	53	16-116	2				
Hexachlorobenzene	ug/kg	ND	2490	2490	1420	1400	57	57	27-120	1				
Hexachlorocyclopentadiene	ug/kg	ND	2490	2490	1750	1560	70	63	10-108	11				
Hexachloroethane	ug/kg	ND	2490	2490	1330	1370	53	55	10-117	3				
Indeno(1,2,3-cd)pyrene	ug/kg	ND	2490	2490	1750	1770	70	71	10-122	1				
Isophorone	ug/kg	ND	2490	2490	1720	1720	69	69	28-114	0				
N-Nitroso-di-n-propylamine	ug/kg	ND	2490	2490	1330	1280	54	51	27-113	4				
N-Nitrosodimethylamine	ug/kg	ND	2490	2490	1320	1470	53	59	10-109	11				
N-Nitrosodiphenylamine	ug/kg	ND	2490	2490	1310	1380	53	55	10-128	5				
Naphthalene	ug/kg	ND	2490	2490	1530	1570	62	63	25-110	2				
Nitrobenzene	ug/kg	ND	2490	2490	1650	1660	66	67	18-114	0				
Pentachlorophenol	ug/kg	ND	4970	4970	3440	2860	69	58	10-122	18				
Phenanthrene	ug/kg	ND	2490	2490	1690	1730	68	70	30-114	3				
Phenol	ug/kg	ND	2490	2490	1340	1530	54	61	11-102	13				
Pyrene	ug/kg	ND	2490	2490	1750	1690	70	68	25-116	3				
2,4,6-Tribromophenol (S)	%						71	73	27-110					
2-Fluorobiphenyl (S)	%						58	58	30-110					
2-Fluorophenol (S)	%						61	69	13-110					
Nitrobenzene-d5 (S)	%						63	63	23-110					

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			1110355		1110356									
Parameter	Units	Result	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Limits	RPD	Qual	
			Spike Conc.	Spike Conc.										
Phenol-d6 (S)	%							60	68	22-110				
Terphenyl-d14 (S)	%							68	64	28-110				

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

QC Batch: OEXT/25329

Analysis Method: EPA 8270

QC Batch Method: EPA 3546

Analysis Description: 8270 Solid MSSV Microwave

Associated Lab Samples: 92184127005

METHOD BLANK: 1112201

Matrix: Solid

Associated Lab Samples: 92184127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	12/26/13 15:51	
1,2-Dichlorobenzene	ug/kg	ND	330	12/26/13 15:51	
1,3-Dichlorobenzene	ug/kg	ND	330	12/26/13 15:51	
1,4-Dichlorobenzene	ug/kg	ND	330	12/26/13 15:51	
1-Methylnaphthalene	ug/kg	ND	330	12/26/13 15:51	
2,4,5-Trichlorophenol	ug/kg	ND	330	12/26/13 15:51	
2,4,6-Trichlorophenol	ug/kg	ND	330	12/26/13 15:51	
2,4-Dichlorophenol	ug/kg	ND	330	12/26/13 15:51	
2,4-Dimethylphenol	ug/kg	ND	330	12/26/13 15:51	
2,4-Dinitrophenol	ug/kg	ND	1650	12/26/13 15:51	
2,4-Dinitrotoluene	ug/kg	ND	330	12/26/13 15:51	
2,6-Dinitrotoluene	ug/kg	ND	330	12/26/13 15:51	
2-Chloronaphthalene	ug/kg	ND	330	12/26/13 15:51	
2-Chlorophenol	ug/kg	ND	330	12/26/13 15:51	
2-Methylnaphthalene	ug/kg	ND	330	12/26/13 15:51	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	12/26/13 15:51	
2-Nitroaniline	ug/kg	ND	1650	12/26/13 15:51	
2-Nitrophenol	ug/kg	ND	330	12/26/13 15:51	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	12/26/13 15:51	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	12/26/13 15:51	
3-Nitroaniline	ug/kg	ND	1650	12/26/13 15:51	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	12/26/13 15:51	
4-Bromophenylphenyl ether	ug/kg	ND	330	12/26/13 15:51	
4-Chloro-3-methylphenol	ug/kg	ND	660	12/26/13 15:51	
4-Chloroaniline	ug/kg	ND	1650	12/26/13 15:51	
4-Chlorophenylphenyl ether	ug/kg	ND	330	12/26/13 15:51	
4-Nitroaniline	ug/kg	ND	660	12/26/13 15:51	
4-Nitrophenol	ug/kg	ND	1650	12/26/13 15:51	
Acenaphthene	ug/kg	ND	330	12/26/13 15:51	
Acenaphthylene	ug/kg	ND	330	12/26/13 15:51	
Aniline	ug/kg	ND	330	12/26/13 15:51	
Anthracene	ug/kg	ND	330	12/26/13 15:51	
Benzo(a)anthracene	ug/kg	ND	330	12/26/13 15:51	
Benzo(a)pyrene	ug/kg	ND	330	12/26/13 15:51	
Benzo(b)fluoranthene	ug/kg	ND	330	12/26/13 15:51	
Benzo(g,h,i)perylene	ug/kg	ND	330	12/26/13 15:51	
Benzo(k)fluoranthene	ug/kg	ND	330	12/26/13 15:51	
Benzoic Acid	ug/kg	ND	1650	12/26/13 15:51	
Benzyl alcohol	ug/kg	ND	660	12/26/13 15:51	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	12/26/13 15:51	
bis(2-Chloroethyl) ether	ug/kg	ND	330	12/26/13 15:51	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	12/26/13 15:51	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	12/26/13 15:51	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

METHOD BLANK: 1112201

Matrix: Solid

Associated Lab Samples: 92184127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	12/26/13 15:51	
Chrysene	ug/kg	ND	330	12/26/13 15:51	
Di-n-butylphthalate	ug/kg	ND	330	12/26/13 15:51	
Di-n-octylphthalate	ug/kg	ND	330	12/26/13 15:51	
Dibenz(a,h)anthracene	ug/kg	ND	330	12/26/13 15:51	
Dibenzofuran	ug/kg	ND	330	12/26/13 15:51	
Diethylphthalate	ug/kg	ND	330	12/26/13 15:51	
Dimethylphthalate	ug/kg	ND	330	12/26/13 15:51	
Fluoranthene	ug/kg	ND	330	12/26/13 15:51	
Fluorene	ug/kg	ND	330	12/26/13 15:51	
Hexachloro-1,3-butadiene	ug/kg	ND	330	12/26/13 15:51	
Hexachlorobenzene	ug/kg	ND	330	12/26/13 15:51	
Hexachlorocyclopentadiene	ug/kg	ND	330	12/26/13 15:51	
Hexachloroethane	ug/kg	ND	330	12/26/13 15:51	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	12/26/13 15:51	
Isophorone	ug/kg	ND	330	12/26/13 15:51	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	12/26/13 15:51	
N-Nitrosodimethylamine	ug/kg	ND	330	12/26/13 15:51	
N-Nitrosodiphenylamine	ug/kg	ND	330	12/26/13 15:51	
Naphthalene	ug/kg	ND	330	12/26/13 15:51	
Nitrobenzene	ug/kg	ND	330	12/26/13 15:51	
Pentachlorophenol	ug/kg	ND	1650	12/26/13 15:51	
Phenanthrene	ug/kg	ND	330	12/26/13 15:51	
Phenol	ug/kg	ND	330	12/26/13 15:51	
Pyrene	ug/kg	ND	330	12/26/13 15:51	
2,4,6-Tribromophenol (S)	%	82	27-110	12/26/13 15:51	
2-Fluorobiphenyl (S)	%	80	30-110	12/26/13 15:51	
2-Fluorophenol (S)	%	81	13-110	12/26/13 15:51	
Nitrobenzene-d5 (S)	%	76	23-110	12/26/13 15:51	
Phenol-d6 (S)	%	81	22-110	12/26/13 15:51	
Terphenyl-d14 (S)	%	85	28-110	12/26/13 15:51	

LABORATORY CONTROL SAMPLE: 1112202

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	1200	72	36-110	
1,3-Dichlorobenzene	ug/kg	1670	1180	71	35-110	
1,4-Dichlorobenzene	ug/kg	1670	1220	73	35-110	
1-Methylnaphthalene	ug/kg	1670	1440	86	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1580	95	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	1410	84	45-111	
2,4-Dichlorophenol	ug/kg	1670	1470	88	51-116	
2,4-Dimethylphenol	ug/kg	1670	1590	95	42-103	
2,4-Dinitrophenol	ug/kg	8330	5810	70	28-103	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1112202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1630	98	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1600	96	48-112	
2-Chloronaphthalene	ug/kg	1670	1260	76	44-105	
2-Chlorophenol	ug/kg	1670	1440	86	36-110	
2-Methylnaphthalene	ug/kg	1670	1530	92	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	1490	89	39-101	
2-Nitroaniline	ug/kg	3330	3210	96	44-111	
2-Nitrophenol	ug/kg	1670	1510	91	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1470	88	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2410	72	10-150	
3-Nitroaniline	ug/kg	3330	2780	83	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2800	84	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1550	93	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	3130	94	43-127	
4-Chloroaniline	ug/kg	3330	2860	86	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1500	90	44-115	
4-Nitroaniline	ug/kg	3330	3200	96	37-111	
4-Nitrophenol	ug/kg	8330	7230	87	21-152	
Acenaphthene	ug/kg	1670	1420	85	38-117	
Acenaphthylene	ug/kg	1670	1480	89	46-107	
Aniline	ug/kg	1670	1250	75	29-110	
Anthracene	ug/kg	1670	1540	92	50-110	
Benzo(a)anthracene	ug/kg	1670	1460	87	47-116	
Benzo(a)pyrene	ug/kg	1670	1590	96	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1330	80	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1400	84	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1440	86	45-117	
Benzoic Acid	ug/kg	8330	5380	65	16-110	
Benzyl alcohol	ug/kg	3330	2730	82	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	1460	88	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	1330	80	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	1340	80	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1430	86	35-116	
Butylbenzylphthalate	ug/kg	1670	1410	85	38-110	
Chrysene	ug/kg	1670	1490	90	49-110	
Di-n-butylphthalate	ug/kg	1670	1450	87	43-109	
Di-n-octylphthalate	ug/kg	1670	1310	79	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1490	89	43-116	
Dibenzofuran	ug/kg	1670	1290	77	45-106	
Diethylphthalate	ug/kg	1670	1380	83	41-114	
Dimethylphthalate	ug/kg	1670	1360	81	43-110	
Fluoranthene	ug/kg	1670	1580	95	50-114	
Fluorene	ug/kg	1670	1490	89	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	1270	76	28-111	
Hexachlorobenzene	ug/kg	1670	1360	82	46-120	
Hexachlorocyclopentadiene	ug/kg	1670	1540	92	18-119	
Hexachloroethane	ug/kg	1670	1190	71	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1540	92	42-115	

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## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

LABORATORY CONTROL SAMPLE: 1112202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Isophorone	ug/kg	1670	1610	97	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	1250	75	43-104	
N-Nitrosodimethylamine	ug/kg	1670	1210	72	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1280	77	48-113	
Naphthalene	ug/kg	1670	1460	87	41-110	
Nitrobenzene	ug/kg	1670	1500	90	38-110	
Pentachlorophenol	ug/kg	3330	2550	77	32-128	
Phenanthrene	ug/kg	1670	1510	90	50-110	
Phenol	ug/kg	1670	1440	86	28-106	
Pyrene	ug/kg	1670	1480	89	45-114	
2,4,6-Tribromophenol (S)	%			103	27-110	
2-Fluorobiphenyl (S)	%			86	30-110	
2-Fluorophenol (S)	%			92	13-110	
Nitrobenzene-d5 (S)	%			87	23-110	
Phenol-d6 (S)	%			93	22-110	
Terphenyl-d14 (S)	%			90	28-110	

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**Pace Analytical Services, Inc.**  
9800 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

---

QC Batch: PMST/6107 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 92184127001, 92184127002, 92184127003, 92184127004, 92184127005, 92184127006, 92184127007,  
92184127008, 92184127009, 92184127010, 92184127011, 92184127012

---

SAMPLE DUPLICATE: 1110258

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	12.7	12.9	1	

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SAMPLE DUPLICATE: 1110259

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.4	18.4	15	

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

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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-C Pace Analytical Services - Charlotte

### ANALYTE QUALIFIERS

- 1g The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
- 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.
- IO The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
- R1 RPD value was outside control limits.
- S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: B-4159 WBS33507.1.1

Pace Project No.: 92184127

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92184127008	S-6-1	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184127009	S-6-2	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184127010	S-6-3	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184127011	S-6-4	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184127012	S-6-8	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184127008	S-6-1	EPA 5035A/5030B	GCV/7658	EPA 8015 Modified	GCV/7661
92184127009	S-6-2	EPA 5035A/5030B	GCV/7658	EPA 8015 Modified	GCV/7661
92184127010	S-6-3	EPA 5035A/5030B	GCV/7658	EPA 8015 Modified	GCV/7661
92184127011	S-6-4	EPA 5035A/5030B	GCV/7658	EPA 8015 Modified	GCV/7661
92184127012	S-6-8	EPA 5035A/5030B	GCV/7658	EPA 8015 Modified	GCV/7661
92184127001	S-8-4	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127002	S-8-3	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127003	S-4-1	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127004	S-6-5	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127005	S-6-6	EPA 3546	OEXT/25329	EPA 8270	MSSV/8609
92184127006	S-6-7	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127007	S-6-9	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184127001	S-8-4	EPA 8260	MSV/25343		
92184127002	S-8-3	EPA 8260	MSV/25355		
92184127003	S-4-1	EPA 8260	MSV/25355		
92184127004	S-6-5	EPA 8260	MSV/25355		
92184127005	S-6-6	EPA 8260	MSV/25355		
92184127006	S-6-7	EPA 8260	MSV/25355		
92184127007	S-6-9	EPA 8260	MSV/25355		
92184127001	S-8-4	ASTM D2974-87	PMST/6107		
92184127002	S-8-3	ASTM D2974-87	PMST/6107		
92184127003	S-4-1	ASTM D2974-87	PMST/6107		
92184127004	S-6-5	ASTM D2974-87	PMST/6107		
92184127005	S-6-6	ASTM D2974-87	PMST/6107		
92184127006	S-6-7	ASTM D2974-87	PMST/6107		
92184127007	S-6-9	ASTM D2974-87	PMST/6107		
92184127008	S-6-1	ASTM D2974-87	PMST/6107		
92184127009	S-6-2	ASTM D2974-87	PMST/6107		
92184127010	S-6-3	ASTM D2974-87	PMST/6107		
92184127011	S-6-4	ASTM D2974-87	PMST/6107		
92184127012	S-6-8	ASTM D2974-87	PMST/6107		

## REPORT OF LABORATORY ANALYSIS

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Client Name: GEL ENG of NC

Where Received:  Huntersville  Asheville  Eden  Raleigh

Courier (Circle): FedEx 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

Circle Thermometer Used: IR Gun #3 -130265964 Type of Ice:  Blue  None  Samples on ice, cooling process has begun  
IR Gun #2- 80344039

Temp Correction Factor: Add / Subtract 0.0 °C

Corrected Cooler Temp.: 5.4 °C

Biological Tissue is Frozen: Yes  No

Date and Initials of person examining  
contents: RDB 12/19/13

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	SC	
All containers needing preservation have been checked:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted:

Date /Time:

Comments/ Resolution: JACKSON Co.

SCURF Review: AMB Date: 12-19-13  
SRF Review: AMB Date: 12-19-13

Place label here

OR

Hand write project number  
(if no label available)

92184127

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)



Pace Analytical  
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## CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>GEL ENG. OF N.C.</u>	Report To: <u>A. Eyer</u>	Attention: <u>NC DOT</u>	Company Name: <u></u>	REGULATORY AGENCY	
Address: <u>P.O. BOX 14262</u> <u>RTP N.C. 27709</u>	Coop To: <u></u>	Address: <u></u>	NPDES	GROUND WATER	DRINKING WATER
Email To: <u>3DG@msn.com</u>	Purchase Order No.: <u>10/12 11X 225AF 11</u>	Pace Quote <u></u>	UST	RCRA	<input checked="" type="checkbox"/> OTHER
Phone: <u>704-546-1744</u>	Project Name: <u>B-4153</u>	Pace Project Manager <u></u>	Site Location <u>STATE: NC</u>		
Requested Due Date/TAT: <u>Normal TAT</u>	Project Number: <u>841-B-2413</u>	Pace Profile #: <u>59946-2</u>			

January 07, 2014

Andrew Eyer  
GEL Engineering of NC  
PO Box 14262  
Research Triangle, NC 27709

RE: Project: B-4159 SOIL WBS33507.1.1  
Pace Project No.: 92184133

Dear Andrew Eyer:

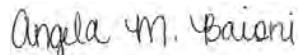
Enclosed are the analytical results for sample(s) received by the laboratory on December 19, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless 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.

The laboratory report is being reissued on January 7, 2014. The sample ID for 92184133012 was revised per client request.

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

Sincerely,



Angela Baioni

angela.baioni@pacelabs.com  
Project Manager

Enclosures

cc: Chemical Testing Engineer, NCDOT



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: B-4159 SOIL WBS33507.1.1  
Pace Project No.: 92184133

---

### 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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## SAMPLE ANALYTE COUNT

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92184133001	S-4-4	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133002	S-4-3	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133003	S-5-1	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133004	S-5-2	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133005	S-5-3	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133006	S-3-1	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133007	S-3-2	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133008	S-3-3	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133009	S-3-4	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133010	S-4-2	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133011	S-3-5	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184133012	S-3-6	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

---

**Sample: S-4-4**      Lab ID: **92184133001**      Collected: 12/19/13 08:50      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	83-32-9	
Acenaphthylene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	208-96-8	
Aniline	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	62-53-3	
Anthracene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	120-12-7	
Benzo(a)anthracene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	56-55-3	
Benzo(a)pyrene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	207-08-9	
Benzoic Acid	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	65-85-0	
Benzyl alcohol	ND ug/kg		860	1	12/20/13 10:30	12/23/13 20:02	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	101-55-3	
Butylbenzylphthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		860	1	12/20/13 10:30	12/23/13 20:02	59-50-7	
4-Chloroaniline	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	108-60-1	
2-Chloronaphthalene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	91-58-7	
2-Chlorophenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	7005-72-3	
Chrysene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	53-70-3	
Dibenzofuran	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	91-94-1	
2,4-Dichlorophenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	120-83-2	
Diethylphthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	84-66-2	
2,4-Dimethylphenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	105-67-9	
Dimethylphthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	131-11-3	
Di-n-butylphthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		860	1	12/20/13 10:30	12/23/13 20:02	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	606-20-2	
Di-n-octylphthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	117-81-7	
Fluoranthene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	206-44-0	
Fluorene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	87-68-3	
Hexachlorobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	77-47-4	
Hexachloroethane	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

---

**Sample: S-4-4**      Lab ID: **92184133001**      Collected: 12/19/13 08:50      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	78-59-1	
1-Methylnaphthalene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	90-12-0	
2-Methylnaphthalene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02		
Naphthalene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	91-20-3	
2-Nitroaniline	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	88-74-4	
3-Nitroaniline	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	99-09-2	
4-Nitroaniline	ND ug/kg		860	1	12/20/13 10:30	12/23/13 20:02	100-01-6	
Nitrobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	98-95-3	
2-Nitrophenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	88-75-5	
4-Nitrophenol	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	86-30-6	
Pentachlorophenol	ND ug/kg		2150	1	12/20/13 10:30	12/23/13 20:02	87-86-5	
Phenanthrene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	85-01-8	
Phenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	108-95-2	
Pyrene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		430	1	12/20/13 10:30	12/23/13 20:02	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	55 %		23-110	1	12/20/13 10:30	12/23/13 20:02	4165-60-0	
2-Fluorobiphenyl (S)	59 %		30-110	1	12/20/13 10:30	12/23/13 20:02	321-60-8	
Terphenyl-d14 (S)	70 %		28-110	1	12/20/13 10:30	12/23/13 20:02	1718-51-0	
Phenol-d6 (S)	77 %		22-110	1	12/20/13 10:30	12/23/13 20:02	13127-88-3	
2-Fluorophenol (S)	72 %		13-110	1	12/20/13 10:30	12/23/13 20:02	367-12-4	
2,4,6-Tribromophenol (S)	68 %		27-110	1	12/20/13 10:30	12/23/13 20:02	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	104 ug/kg		94.8	1		12/24/13 21:11	67-64-1	
Benzene	ND ug/kg		4.7	1		12/24/13 21:11	71-43-2	
Bromobenzene	ND ug/kg		4.7	1		12/24/13 21:11	108-86-1	
Bromochloromethane	ND ug/kg		4.7	1		12/24/13 21:11	74-97-5	
Bromodichloromethane	ND ug/kg		4.7	1		12/24/13 21:11	75-27-4	
Bromoform	ND ug/kg		4.7	1		12/24/13 21:11	75-25-2	
Bromomethane	ND ug/kg		9.5	1		12/24/13 21:11	74-83-9	
2-Butanone (MEK)	ND ug/kg		94.8	1		12/24/13 21:11	78-93-3	
n-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	104-51-8	
sec-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	135-98-8	
tert-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	98-06-6	
Carbon tetrachloride	ND ug/kg		4.7	1		12/24/13 21:11	56-23-5	
Chlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	108-90-7	
Chloroethane	ND ug/kg		9.5	1		12/24/13 21:11	75-00-3	
Chloroform	ND ug/kg		4.7	1		12/24/13 21:11	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-4-4**      Lab ID: **92184133001**      Collected: 12/19/13 08:50      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		9.5	1		12/24/13 21:11	74-87-3	
2-Chlorotoluene	ND ug/kg		4.7	1		12/24/13 21:11	95-49-8	
4-Chlorotoluene	ND ug/kg		4.7	1		12/24/13 21:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.7	1		12/24/13 21:11	96-12-8	
Dibromochloromethane	ND ug/kg		4.7	1		12/24/13 21:11	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.7	1		12/24/13 21:11	106-93-4	
Dibromomethane	ND ug/kg		4.7	1		12/24/13 21:11	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.5	1		12/24/13 21:11	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.7	1		12/24/13 21:11	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.7	1		12/24/13 21:11	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:11	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:11	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:11	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:11	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:11	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:11	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:11	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:11	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:11	10061-02-6	
Diisopropyl ether	ND ug/kg		4.7	1		12/24/13 21:11	108-20-3	
Ethylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.7	1		12/24/13 21:11	87-68-3	
2-Hexanone	ND ug/kg		47.4	1		12/24/13 21:11	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.7	1		12/24/13 21:11	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.7	1		12/24/13 21:11	99-87-6	
Methylene Chloride	ND ug/kg		19.0	1		12/24/13 21:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		47.4	1		12/24/13 21:11	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.7	1		12/24/13 21:11	1634-04-4	
Naphthalene	ND ug/kg		4.7	1		12/24/13 21:11	91-20-3	
n-Propylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	103-65-1	
Styrene	ND ug/kg		4.7	1		12/24/13 21:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.7	1		12/24/13 21:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.7	1		12/24/13 21:11	79-34-5	
Tetrachloroethene	ND ug/kg		4.7	1		12/24/13 21:11	127-18-4	
Toluene	ND ug/kg		4.7	1		12/24/13 21:11	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:11	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.7	1		12/24/13 21:11	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.7	1		12/24/13 21:11	79-00-5	
Trichloroethene	ND ug/kg		4.7	1		12/24/13 21:11	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.7	1		12/24/13 21:11	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.7	1		12/24/13 21:11	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-4-4**      Lab ID: **92184133001**      Collected: 12/19/13 08:50      Received: 12/19/13 15:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		4.7	1		12/24/13 21:11	108-67-8	
Vinyl acetate	ND ug/kg		47.4	1		12/24/13 21:11	108-05-4	
Vinyl chloride	ND ug/kg		9.5	1		12/24/13 21:11	75-01-4	
Xylene (Total)	ND ug/kg		9.5	1		12/24/13 21:11	1330-20-7	
m&p-Xylene	ND ug/kg		9.5	1		12/24/13 21:11	179601-23-1	
o-Xylene	ND ug/kg		4.7	1		12/24/13 21:11	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	93 %		70-130	1		12/24/13 21:11	2037-26-5	
4-Bromofluorobenzene (S)	88 %		70-130	1		12/24/13 21:11	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		70-132	1		12/24/13 21:11	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>23.3 %</b>		0.10	1		12/20/13 16:55		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-4-3**      Lab ID: **92184133002**      Collected: 12/19/13 09:25      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	83-32-9	
Acenaphthylene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	208-96-8	
Aniline	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	62-53-3	
Anthracene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	120-12-7	
Benzo(a)anthracene	<b>472</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	56-55-3	
Benzo(a)pyrene	<b>690</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	50-32-8	
Benzo(b)fluoranthene	<b>630</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	205-99-2	
Benzo(g,h,i)perylene	<b>610</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	191-24-2	
Benzo(k)fluoranthene	<b>588</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	207-08-9	
Benzoic Acid	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	65-85-0	
Benzyl alcohol	ND ug/kg		808	1	12/20/13 10:30	12/23/13 20:30	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	101-55-3	
Butylbenzylphthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		808	1	12/20/13 10:30	12/23/13 20:30	59-50-7	
4-Chloroaniline	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	108-60-1	
2-Chloronaphthalene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	91-58-7	
2-Chlorophenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	7005-72-3	
Chrysene	<b>642</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	53-70-3	
Dibenzofuran	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	91-94-1	
2,4-Dichlorophenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	120-83-2	
Diethylphthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	84-66-2	
2,4-Dimethylphenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	105-67-9	
Dimethylphthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	131-11-3	
Di-n-butylphthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		808	1	12/20/13 10:30	12/23/13 20:30	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	606-20-2	
Di-n-octylphthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	117-81-7	
Fluoranthene	<b>919</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	206-44-0	
Fluorene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	87-68-3	
Hexachlorobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	77-47-4	
Hexachloroethane	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	67-72-1	
Indeno(1,2,3-cd)pyrene	<b>528</b> ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-4-3**      Lab ID: **92184133002**      Collected: 12/19/13 09:25      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	78-59-1	
1-Methylnaphthalene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	90-12-0	
2-Methylnaphthalene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30		
Naphthalene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	91-20-3	
2-Nitroaniline	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	88-74-4	
3-Nitroaniline	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	99-09-2	
4-Nitroaniline	ND ug/kg		808	1	12/20/13 10:30	12/23/13 20:30	100-01-6	
Nitrobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	98-95-3	
2-Nitrophenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	88-75-5	
4-Nitrophenol	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	86-30-6	
Pentachlorophenol	ND ug/kg		2020	1	12/20/13 10:30	12/23/13 20:30	87-86-5	
Phenanthrene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	85-01-8	
Phenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	108-95-2	
Pyrene	772 ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		404	1	12/20/13 10:30	12/23/13 20:30	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	65 %		23-110	1	12/20/13 10:30	12/23/13 20:30	4165-60-0	
2-Fluorobiphenyl (S)	52 %		30-110	1	12/20/13 10:30	12/23/13 20:30	321-60-8	
Terphenyl-d14 (S)	62 %		28-110	1	12/20/13 10:30	12/23/13 20:30	1718-51-0	
Phenol-d6 (S)	53 %		22-110	1	12/20/13 10:30	12/23/13 20:30	13127-88-3	
2-Fluorophenol (S)	48 %		13-110	1	12/20/13 10:30	12/23/13 20:30	367-12-4	
2,4,6-Tribromophenol (S)	53 %		27-110	1	12/20/13 10:30	12/23/13 20:30	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	187 ug/kg		93.6	1		12/24/13 21:31	67-64-1	A+
Benzene	ND ug/kg		4.7	1		12/24/13 21:31	71-43-2	
Bromobenzene	ND ug/kg		4.7	1		12/24/13 21:31	108-86-1	
Bromochloromethane	ND ug/kg		4.7	1		12/24/13 21:31	74-97-5	
Bromodichloromethane	ND ug/kg		4.7	1		12/24/13 21:31	75-27-4	
Bromoform	ND ug/kg		4.7	1		12/24/13 21:31	75-25-2	
Bromomethane	ND ug/kg		9.4	1		12/24/13 21:31	74-83-9	
2-Butanone (MEK)	ND ug/kg		93.6	1		12/24/13 21:31	78-93-3	
n-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	104-51-8	
sec-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	135-98-8	
tert-Butylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	98-06-6	
Carbon tetrachloride	ND ug/kg		4.7	1		12/24/13 21:31	56-23-5	
Chlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	108-90-7	
Chloroethane	ND ug/kg		9.4	1		12/24/13 21:31	75-00-3	
Chloroform	ND ug/kg		4.7	1		12/24/13 21:31	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-4-3**      Lab ID: **92184133002**      Collected: 12/19/13 09:25      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		9.4	1		12/24/13 21:31	74-87-3	
2-Chlorotoluene	ND ug/kg		4.7	1		12/24/13 21:31	95-49-8	
4-Chlorotoluene	ND ug/kg		4.7	1		12/24/13 21:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.7	1		12/24/13 21:31	96-12-8	
Dibromochloromethane	ND ug/kg		4.7	1		12/24/13 21:31	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.7	1		12/24/13 21:31	106-93-4	
Dibromomethane	ND ug/kg		4.7	1		12/24/13 21:31	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.4	1		12/24/13 21:31	75-71-8	1g
1,1-Dichloroethane	ND ug/kg		4.7	1		12/24/13 21:31	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.7	1		12/24/13 21:31	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:31	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:31	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.7	1		12/24/13 21:31	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:31	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:31	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.7	1		12/24/13 21:31	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:31	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:31	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.7	1		12/24/13 21:31	10061-02-6	
Diisopropyl ether	ND ug/kg		4.7	1		12/24/13 21:31	108-20-3	
Ethylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.7	1		12/24/13 21:31	87-68-3	
2-Hexanone	ND ug/kg		46.8	1		12/24/13 21:31	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.7	1		12/24/13 21:31	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.7	1		12/24/13 21:31	99-87-6	
Methylene Chloride	ND ug/kg		18.7	1		12/24/13 21:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		46.8	1		12/24/13 21:31	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.7	1		12/24/13 21:31	1634-04-4	
Naphthalene	ND ug/kg		4.7	1		12/24/13 21:31	91-20-3	
n-Propylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	103-65-1	
Styrene	ND ug/kg		4.7	1		12/24/13 21:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.7	1		12/24/13 21:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.7	1		12/24/13 21:31	79-34-5	
Tetrachloroethene	ND ug/kg		4.7	1		12/24/13 21:31	127-18-4	
Toluene	ND ug/kg		4.7	1		12/24/13 21:31	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.7	1		12/24/13 21:31	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.7	1		12/24/13 21:31	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.7	1		12/24/13 21:31	79-00-5	
Trichloroethene	ND ug/kg		4.7	1		12/24/13 21:31	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.7	1		12/24/13 21:31	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.7	1		12/24/13 21:31	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-4-3**      Lab ID: **92184133002**      Collected: 12/19/13 09:25      Received: 12/19/13 15:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		4.7	1		12/24/13 21:31	108-67-8	
Vinyl acetate	ND ug/kg		46.8	1		12/24/13 21:31	108-05-4	
Vinyl chloride	ND ug/kg		9.4	1		12/24/13 21:31	75-01-4	
Xylene (Total)	ND ug/kg		9.4	1		12/24/13 21:31	1330-20-7	
m&p-Xylene	ND ug/kg		9.4	1		12/24/13 21:31	179601-23-1	
o-Xylene	ND ug/kg		4.7	1		12/24/13 21:31	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	94 %		70-130	1		12/24/13 21:31	2037-26-5	
4-Bromofluorobenzene (S)	86 %		70-130	1		12/24/13 21:31	460-00-4	
1,2-Dichloroethane-d4 (S)	116 %		70-132	1		12/24/13 21:31	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	18.3 %		0.10	1		12/20/13 16:55		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-1**      Lab ID: **92184133003**      Collected: 12/19/13 10:05      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	83-32-9	
Acenaphthylene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	208-96-8	
Aniline	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	62-53-3	
Anthracene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	120-12-7	
Benzo(a)anthracene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	56-55-3	
Benzo(a)pyrene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	207-08-9	
Benzoic Acid	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	65-85-0	
Benzyl alcohol	ND ug/kg		788	1	12/20/13 10:30	12/23/13 20:58	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	101-55-3	
Butylbenzylphthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		788	1	12/20/13 10:30	12/23/13 20:58	59-50-7	
4-Chloroaniline	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	108-60-1	
2-Chloronaphthalene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	91-58-7	
2-Chlorophenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	7005-72-3	
Chrysene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	53-70-3	
Dibenzofuran	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	91-94-1	
2,4-Dichlorophenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	120-83-2	
Diethylphthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	84-66-2	
2,4-Dimethylphenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	105-67-9	
Dimethylphthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	131-11-3	
Di-n-butylphthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		788	1	12/20/13 10:30	12/23/13 20:58	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	606-20-2	
Di-n-octylphthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	117-81-7	
Fluoranthene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	206-44-0	
Fluorene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	87-68-3	
Hexachlorobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	77-47-4	
Hexachloroethane	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

---

**Sample: S-5-1**      Lab ID: **92184133003**      Collected: 12/19/13 10:05      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	78-59-1	
1-Methylnaphthalene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	90-12-0	
2-Methylnaphthalene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58		
Naphthalene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	91-20-3	
2-Nitroaniline	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	88-74-4	
3-Nitroaniline	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	99-09-2	
4-Nitroaniline	ND ug/kg		788	1	12/20/13 10:30	12/23/13 20:58	100-01-6	
Nitrobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	98-95-3	
2-Nitrophenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	88-75-5	
4-Nitrophenol	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	86-30-6	
Pentachlorophenol	ND ug/kg		1970	1	12/20/13 10:30	12/23/13 20:58	87-86-5	
Phenanthrene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	85-01-8	
Phenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	108-95-2	
Pyrene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		394	1	12/20/13 10:30	12/23/13 20:58	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	70 %		23-110	1	12/20/13 10:30	12/23/13 20:58	4165-60-0	
2-Fluorobiphenyl (S)	65 %		30-110	1	12/20/13 10:30	12/23/13 20:58	321-60-8	
Terphenyl-d14 (S)	69 %		28-110	1	12/20/13 10:30	12/23/13 20:58	1718-51-0	
Phenol-d6 (S)	67 %		22-110	1	12/20/13 10:30	12/23/13 20:58	13127-88-3	
2-Fluorophenol (S)	60 %		13-110	1	12/20/13 10:30	12/23/13 20:58	367-12-4	
2,4,6-Tribromophenol (S)	67 %		27-110	1	12/20/13 10:30	12/23/13 20:58	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	125 ug/kg		82.1	1		12/24/13 21:50	67-64-1	A+
Benzene	ND ug/kg		4.1	1		12/24/13 21:50	71-43-2	
Bromobenzene	ND ug/kg		4.1	1		12/24/13 21:50	108-86-1	
Bromochloromethane	ND ug/kg		4.1	1		12/24/13 21:50	74-97-5	
Bromodichloromethane	ND ug/kg		4.1	1		12/24/13 21:50	75-27-4	
Bromoform	ND ug/kg		4.1	1		12/24/13 21:50	75-25-2	
Bromomethane	ND ug/kg		8.2	1		12/24/13 21:50	74-83-9	
2-Butanone (MEK)	ND ug/kg		82.1	1		12/24/13 21:50	78-93-3	
n-Butylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	104-51-8	
sec-Butylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	135-98-8	
tert-Butylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	98-06-6	
Carbon tetrachloride	ND ug/kg		4.1	1		12/24/13 21:50	56-23-5	
Chlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	108-90-7	
Chloroethane	ND ug/kg		8.2	1		12/24/13 21:50	75-00-3	
Chloroform	ND ug/kg		4.1	1		12/24/13 21:50	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-1**      Lab ID: **92184133003**      Collected: 12/19/13 10:05      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		8.2	1		12/24/13 21:50	74-87-3	
2-Chlorotoluene	ND ug/kg		4.1	1		12/24/13 21:50	95-49-8	
4-Chlorotoluene	ND ug/kg		4.1	1		12/24/13 21:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.1	1		12/24/13 21:50	96-12-8	
Dibromochloromethane	ND ug/kg		4.1	1		12/24/13 21:50	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.1	1		12/24/13 21:50	106-93-4	
Dibromomethane	ND ug/kg		4.1	1		12/24/13 21:50	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.2	1		12/24/13 21:50	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.1	1		12/24/13 21:50	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.1	1		12/24/13 21:50	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.1	1		12/24/13 21:50	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.1	1		12/24/13 21:50	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.1	1		12/24/13 21:50	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.1	1		12/24/13 21:50	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.1	1		12/24/13 21:50	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.1	1		12/24/13 21:50	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.1	1		12/24/13 21:50	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.1	1		12/24/13 21:50	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.1	1		12/24/13 21:50	10061-02-6	
Diisopropyl ether	ND ug/kg		4.1	1		12/24/13 21:50	108-20-3	
Ethylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.1	1		12/24/13 21:50	87-68-3	
2-Hexanone	ND ug/kg		41.0	1		12/24/13 21:50	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.1	1		12/24/13 21:50	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.1	1		12/24/13 21:50	99-87-6	
Methylene Chloride	ND ug/kg		16.4	1		12/24/13 21:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		41.0	1		12/24/13 21:50	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.1	1		12/24/13 21:50	1634-04-4	
Naphthalene	ND ug/kg		4.1	1		12/24/13 21:50	91-20-3	
n-Propylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	103-65-1	
Styrene	ND ug/kg		4.1	1		12/24/13 21:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.1	1		12/24/13 21:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.1	1		12/24/13 21:50	79-34-5	
Tetrachloroethene	ND ug/kg		4.1	1		12/24/13 21:50	127-18-4	
Toluene	ND ug/kg		4.1	1		12/24/13 21:50	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.1	1		12/24/13 21:50	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.1	1		12/24/13 21:50	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.1	1		12/24/13 21:50	79-00-5	
Trichloroethene	ND ug/kg		4.1	1		12/24/13 21:50	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.1	1		12/24/13 21:50	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.1	1		12/24/13 21:50	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-5-1** Lab ID: **92184133003** Collected: 12/19/13 10:05 Received: 12/19/13 15:00 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						
1,3,5-Trimethylbenzene	ND ug/kg		4.1	1		12/24/13 21:50	108-67-8	
Vinyl acetate	ND ug/kg		41.0	1		12/24/13 21:50	108-05-4	
Vinyl chloride	ND ug/kg		8.2	1		12/24/13 21:50	75-01-4	
Xylene (Total)	ND ug/kg		8.2	1		12/24/13 21:50	1330-20-7	
m&p-Xylene	ND ug/kg		8.2	1		12/24/13 21:50	179601-23-1	
o-Xylene	ND ug/kg		4.1	1		12/24/13 21:50	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		12/24/13 21:50	2037-26-5	
4-Bromofluorobenzene (S)	91 %		70-130	1		12/24/13 21:50	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		70-132	1		12/24/13 21:50	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.2 %</b>		0.10	1		12/20/13 16:56		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-2**      Lab ID: **92184133004**      Collected: 12/19/13 10:30      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	83-32-9	
Acenaphthylene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	208-96-8	
Aniline	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	62-53-3	
Anthracene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	120-12-7	
Benzo(a)anthracene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	56-55-3	
Benzo(a)pyrene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	207-08-9	
Benzoic Acid	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	65-85-0	
Benzyl alcohol	ND ug/kg		843	1	12/20/13 10:30	12/23/13 21:25	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	101-55-3	
Butylbenzylphthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		843	1	12/20/13 10:30	12/23/13 21:25	59-50-7	
4-Chloroaniline	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	108-60-1	
2-Chloronaphthalene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	91-58-7	
2-Chlorophenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	7005-72-3	
Chrysene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	53-70-3	
Dibenzofuran	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	91-94-1	
2,4-Dichlorophenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	120-83-2	
Diethylphthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	84-66-2	
2,4-Dimethylphenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	105-67-9	
Dimethylphthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	131-11-3	
Di-n-butylphthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		843	1	12/20/13 10:30	12/23/13 21:25	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	606-20-2	
Di-n-octylphthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	117-81-7	
Fluoranthene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	206-44-0	
Fluorene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	87-68-3	
Hexachlorobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	77-47-4	
Hexachloroethane	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-2**      Lab ID: **92184133004**      Collected: 12/19/13 10:30      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	78-59-1	
1-Methylnaphthalene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	90-12-0	
2-Methylnaphthalene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25		
Naphthalene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	91-20-3	
2-Nitroaniline	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	88-74-4	
3-Nitroaniline	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	99-09-2	
4-Nitroaniline	ND ug/kg		843	1	12/20/13 10:30	12/23/13 21:25	100-01-6	
Nitrobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	98-95-3	
2-Nitrophenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	88-75-5	
4-Nitrophenol	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	86-30-6	
Pentachlorophenol	ND ug/kg		2110	1	12/20/13 10:30	12/23/13 21:25	87-86-5	
Phenanthrene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	85-01-8	
Phenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	108-95-2	
Pyrene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		422	1	12/20/13 10:30	12/23/13 21:25	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	65 %		23-110	1	12/20/13 10:30	12/23/13 21:25	4165-60-0	
2-Fluorobiphenyl (S)	63 %		30-110	1	12/20/13 10:30	12/23/13 21:25	321-60-8	
Terphenyl-d14 (S)	67 %		28-110	1	12/20/13 10:30	12/23/13 21:25	1718-51-0	
Phenol-d6 (S)	52 %		22-110	1	12/20/13 10:30	12/23/13 21:25	13127-88-3	
2-Fluorophenol (S)	48 %		13-110	1	12/20/13 10:30	12/23/13 21:25	367-12-4	
2,4,6-Tribromophenol (S)	38 %		27-110	1	12/20/13 10:30	12/23/13 21:25	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		92.4	1		12/26/13 14:00	67-64-1	
Benzene	ND ug/kg		4.6	1		12/26/13 14:00	71-43-2	
Bromobenzene	ND ug/kg		4.6	1		12/26/13 14:00	108-86-1	
Bromochloromethane	ND ug/kg		4.6	1		12/26/13 14:00	74-97-5	
Bromodichloromethane	ND ug/kg		4.6	1		12/26/13 14:00	75-27-4	
Bromoform	ND ug/kg		4.6	1		12/26/13 14:00	75-25-2	
Bromomethane	ND ug/kg		9.2	1		12/26/13 14:00	74-83-9	
2-Butanone (MEK)	ND ug/kg		92.4	1		12/26/13 14:00	78-93-3	
n-Butylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	104-51-8	
sec-Butylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	135-98-8	
tert-Butylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	98-06-6	
Carbon tetrachloride	ND ug/kg		4.6	1		12/26/13 14:00	56-23-5	
Chlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	108-90-7	
Chloroethane	ND ug/kg		9.2	1		12/26/13 14:00	75-00-3	
Chloroform	ND ug/kg		4.6	1		12/26/13 14:00	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-2**      **Lab ID: 92184133004**      Collected: 12/19/13 10:30      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		9.2	1		12/26/13 14:00	74-87-3	
2-Chlorotoluene	ND ug/kg		4.6	1		12/26/13 14:00	95-49-8	
4-Chlorotoluene	ND ug/kg		4.6	1		12/26/13 14:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.6	1		12/26/13 14:00	96-12-8	
Dibromochloromethane	ND ug/kg		4.6	1		12/26/13 14:00	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.6	1		12/26/13 14:00	106-93-4	
Dibromomethane	ND ug/kg		4.6	1		12/26/13 14:00	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.2	1		12/26/13 14:00	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.6	1		12/26/13 14:00	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.6	1		12/26/13 14:00	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.6	1		12/26/13 14:00	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.6	1		12/26/13 14:00	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.6	1		12/26/13 14:00	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.6	1		12/26/13 14:00	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.6	1		12/26/13 14:00	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.6	1		12/26/13 14:00	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.6	1		12/26/13 14:00	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.6	1		12/26/13 14:00	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.6	1		12/26/13 14:00	10061-02-6	
Diisopropyl ether	ND ug/kg		4.6	1		12/26/13 14:00	108-20-3	
Ethylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.6	1		12/26/13 14:00	87-68-3	
2-Hexanone	ND ug/kg		46.2	1		12/26/13 14:00	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.6	1		12/26/13 14:00	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.6	1		12/26/13 14:00	99-87-6	
Methylene Chloride	ND ug/kg		18.5	1		12/26/13 14:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		46.2	1		12/26/13 14:00	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.6	1		12/26/13 14:00	1634-04-4	
Naphthalene	ND ug/kg		4.6	1		12/26/13 14:00	91-20-3	
n-Propylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	103-65-1	
Styrene	ND ug/kg		4.6	1		12/26/13 14:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.6	1		12/26/13 14:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.6	1		12/26/13 14:00	79-34-5	
Tetrachloroethene	ND ug/kg		4.6	1		12/26/13 14:00	127-18-4	
Toluene	ND ug/kg		4.6	1		12/26/13 14:00	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.6	1		12/26/13 14:00	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.6	1		12/26/13 14:00	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.6	1		12/26/13 14:00	79-00-5	
Trichloroethene	ND ug/kg		4.6	1		12/26/13 14:00	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.6	1		12/26/13 14:00	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.6	1		12/26/13 14:00	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Sample: S-5-2 Lab ID: 92184133004 Collected: 12/19/13 10:30 Received: 12/19/13 15:00 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						
1,3,5-Trimethylbenzene	ND ug/kg		4.6	1		12/26/13 14:00	108-67-8	
Vinyl acetate	ND ug/kg		46.2	1		12/26/13 14:00	108-05-4	
Vinyl chloride	ND ug/kg		9.2	1		12/26/13 14:00	75-01-4	
Xylene (Total)	ND ug/kg		9.2	1		12/26/13 14:00	1330-20-7	
m&p-Xylene	ND ug/kg		9.2	1		12/26/13 14:00	179601-23-1	
o-Xylene	ND ug/kg		4.6	1		12/26/13 14:00	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		12/26/13 14:00	2037-26-5	
4-Bromofluorobenzene (S)	103 %		70-130	1		12/26/13 14:00	460-00-4	
1,2-Dichloroethane-d4 (S)	117 %		70-132	1		12/26/13 14:00	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	21.7 %		0.10	1		12/20/13 16:56		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

---

**Sample: S-5-3**      Lab ID: **92184133005**      Collected: 12/19/13 10:55      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	83-32-9	
Acenaphthylene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	208-96-8	
Aniline	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	62-53-3	
Anthracene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	120-12-7	
Benzo(a)anthracene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	56-55-3	
Benzo(a)pyrene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	207-08-9	
Benzoic Acid	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	65-85-0	
Benzyl alcohol	ND ug/kg		936	1	12/20/13 10:30	12/23/13 21:53	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	101-55-3	
Butylbenzylphthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		936	1	12/20/13 10:30	12/23/13 21:53	59-50-7	
4-Chloroaniline	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	108-60-1	
2-Chloronaphthalene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	91-58-7	
2-Chlorophenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	7005-72-3	
Chrysene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	53-70-3	
Dibenzofuran	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	91-94-1	
2,4-Dichlorophenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	120-83-2	
Diethylphthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	84-66-2	
2,4-Dimethylphenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	105-67-9	
Dimethylphthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	131-11-3	
Di-n-butylphthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		936	1	12/20/13 10:30	12/23/13 21:53	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	606-20-2	
Di-n-octylphthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	117-81-7	
Fluoranthene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	206-44-0	
Fluorene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	87-68-3	
Hexachlorobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	77-47-4	
Hexachloroethane	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-3**      Lab ID: **92184133005**      Collected: 12/19/13 10:55      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	78-59-1	
1-Methylnaphthalene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	90-12-0	
2-Methylnaphthalene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53		
Naphthalene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	91-20-3	
2-Nitroaniline	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	88-74-4	
3-Nitroaniline	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	99-09-2	
4-Nitroaniline	ND ug/kg		936	1	12/20/13 10:30	12/23/13 21:53	100-01-6	
Nitrobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	98-95-3	
2-Nitrophenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	88-75-5	
4-Nitrophenol	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	86-30-6	
Pentachlorophenol	ND ug/kg		2340	1	12/20/13 10:30	12/23/13 21:53	87-86-5	
Phenanthrene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	85-01-8	
Phenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	108-95-2	
Pyrene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		468	1	12/20/13 10:30	12/23/13 21:53	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	74 %		23-110	1	12/20/13 10:30	12/23/13 21:53	4165-60-0	
2-Fluorobiphenyl (S)	68 %		30-110	1	12/20/13 10:30	12/23/13 21:53	321-60-8	
Terphenyl-d14 (S)	58 %		28-110	1	12/20/13 10:30	12/23/13 21:53	1718-51-0	
Phenol-d6 (S)	68 %		22-110	1	12/20/13 10:30	12/23/13 21:53	13127-88-3	
2-Fluorophenol (S)	55 %		13-110	1	12/20/13 10:30	12/23/13 21:53	367-12-4	
2,4,6-Tribromophenol (S)	44 %		27-110	1	12/20/13 10:30	12/23/13 21:53	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		107	1		12/26/13 14:20	67-64-1	
Benzene	ND ug/kg		5.4	1		12/26/13 14:20	71-43-2	
Bromobenzene	ND ug/kg		5.4	1		12/26/13 14:20	108-86-1	
Bromochloromethane	ND ug/kg		5.4	1		12/26/13 14:20	74-97-5	
Bromodichloromethane	ND ug/kg		5.4	1		12/26/13 14:20	75-27-4	
Bromoform	ND ug/kg		5.4	1		12/26/13 14:20	75-25-2	
Bromomethane	ND ug/kg		10.7	1		12/26/13 14:20	74-83-9	
2-Butanone (MEK)	ND ug/kg		107	1		12/26/13 14:20	78-93-3	
n-Butylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	104-51-8	
sec-Butylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	135-98-8	
tert-Butylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	98-06-6	
Carbon tetrachloride	ND ug/kg		5.4	1		12/26/13 14:20	56-23-5	
Chlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	108-90-7	
Chloroethane	ND ug/kg		10.7	1		12/26/13 14:20	75-00-3	
Chloroform	ND ug/kg		5.4	1		12/26/13 14:20	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-5-3**      **Lab ID: 92184133005**      Collected: 12/19/13 10:55      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		10.7	1		12/26/13 14:20	74-87-3	
2-Chlorotoluene	ND ug/kg		5.4	1		12/26/13 14:20	95-49-8	
4-Chlorotoluene	ND ug/kg		5.4	1		12/26/13 14:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.4	1		12/26/13 14:20	96-12-8	
Dibromochloromethane	ND ug/kg		5.4	1		12/26/13 14:20	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.4	1		12/26/13 14:20	106-93-4	
Dibromomethane	ND ug/kg		5.4	1		12/26/13 14:20	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10.7	1		12/26/13 14:20	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.4	1		12/26/13 14:20	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.4	1		12/26/13 14:20	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.4	1		12/26/13 14:20	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.4	1		12/26/13 14:20	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.4	1		12/26/13 14:20	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.4	1		12/26/13 14:20	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.4	1		12/26/13 14:20	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.4	1		12/26/13 14:20	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.4	1		12/26/13 14:20	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.4	1		12/26/13 14:20	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.4	1		12/26/13 14:20	10061-02-6	
Diisopropyl ether	ND ug/kg		5.4	1		12/26/13 14:20	108-20-3	
Ethylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.4	1		12/26/13 14:20	87-68-3	
2-Hexanone	ND ug/kg		53.7	1		12/26/13 14:20	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.4	1		12/26/13 14:20	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.4	1		12/26/13 14:20	99-87-6	
Methylene Chloride	ND ug/kg		21.5	1		12/26/13 14:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		53.7	1		12/26/13 14:20	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.4	1		12/26/13 14:20	1634-04-4	
Naphthalene	ND ug/kg		5.4	1		12/26/13 14:20	91-20-3	
n-Propylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	103-65-1	
Styrene	ND ug/kg		5.4	1		12/26/13 14:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.4	1		12/26/13 14:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.4	1		12/26/13 14:20	79-34-5	
Tetrachloroethene	ND ug/kg		5.4	1		12/26/13 14:20	127-18-4	
Toluene	ND ug/kg		5.4	1		12/26/13 14:20	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.4	1		12/26/13 14:20	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.4	1		12/26/13 14:20	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.4	1		12/26/13 14:20	79-00-5	
Trichloroethene	ND ug/kg		5.4	1		12/26/13 14:20	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.4	1		12/26/13 14:20	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.4	1		12/26/13 14:20	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-5-3**      Lab ID: **92184133005**      Collected: 12/19/13 10:55      Received: 12/19/13 15:00      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							
1,3,5-Trimethylbenzene	ND ug/kg		5.4	1		12/26/13 14:20	108-67-8	
Vinyl acetate	ND ug/kg		53.7	1		12/26/13 14:20	108-05-4	
Vinyl chloride	ND ug/kg		10.7	1		12/26/13 14:20	75-01-4	
Xylene (Total)	ND ug/kg		10.7	1		12/26/13 14:20	1330-20-7	
m&p-Xylene	ND ug/kg		10.7	1		12/26/13 14:20	179601-23-1	
o-Xylene	ND ug/kg		5.4	1		12/26/13 14:20	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	95 %		70-130	1		12/26/13 14:20	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		12/26/13 14:20	460-00-4	
1,2-Dichloroethane-d4 (S)	126 %		70-132	1		12/26/13 14:20	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>29.5 %</b>		0.10	1		12/20/13 16:56		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-1**      Lab ID: **92184133006**      Collected: 12/19/13 11:10      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	83-32-9	
Acenaphthylene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	208-96-8	
Aniline	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	62-53-3	
Anthracene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	120-12-7	
Benzo(a)anthracene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	56-55-3	
Benzo(a)pyrene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	207-08-9	
Benzoic Acid	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	65-85-0	
Benzyl alcohol	ND ug/kg		893	1	12/20/13 10:30	12/24/13 12:46	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	101-55-3	
Butylbenzylphthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		893	1	12/20/13 10:30	12/24/13 12:46	59-50-7	
4-Chloroaniline	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	108-60-1	
2-Chloronaphthalene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	91-58-7	
2-Chlorophenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	7005-72-3	
Chrysene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	53-70-3	
Dibenzofuran	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	91-94-1	
2,4-Dichlorophenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	120-83-2	
Diethylphthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	84-66-2	
2,4-Dimethylphenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	105-67-9	
Dimethylphthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	131-11-3	
Di-n-butylphthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		893	1	12/20/13 10:30	12/24/13 12:46	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	606-20-2	
Di-n-octylphthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	117-81-7	
Fluoranthene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	206-44-0	
Fluorene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	87-68-3	
Hexachlorobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	77-47-4	
Hexachloroethane	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-1**      Lab ID: **92184133006**      Collected: 12/19/13 11:10      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	78-59-1	
1-Methylnaphthalene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	90-12-0	
2-Methylnaphthalene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46		
Naphthalene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	91-20-3	
2-Nitroaniline	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	88-74-4	
3-Nitroaniline	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	99-09-2	
4-Nitroaniline	ND ug/kg		893	1	12/20/13 10:30	12/24/13 12:46	100-01-6	
Nitrobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	98-95-3	
2-Nitrophenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	88-75-5	
4-Nitrophenol	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	86-30-6	
Pentachlorophenol	ND ug/kg		2230	1	12/20/13 10:30	12/24/13 12:46	87-86-5	
Phenanthrene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	85-01-8	
Phenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	108-95-2	
Pyrene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		446	1	12/20/13 10:30	12/24/13 12:46	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	67 %		23-110	1	12/20/13 10:30	12/24/13 12:46	4165-60-0	
2-Fluorobiphenyl (S)	64 %		30-110	1	12/20/13 10:30	12/24/13 12:46	321-60-8	
Terphenyl-d14 (S)	51 %		28-110	1	12/20/13 10:30	12/24/13 12:46	1718-51-0	
Phenol-d6 (S)	61 %		22-110	1	12/20/13 10:30	12/24/13 12:46	13127-88-3	
2-Fluorophenol (S)	52 %		13-110	1	12/20/13 10:30	12/24/13 12:46	367-12-4	
2,4,6-Tribromophenol (S)	38 %		27-110	1	12/20/13 10:30	12/24/13 12:46	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		99.6	1		12/26/13 14:39	67-64-1	
Benzene	ND ug/kg		5.0	1		12/26/13 14:39	71-43-2	
Bromobenzene	ND ug/kg		5.0	1		12/26/13 14:39	108-86-1	
Bromochloromethane	ND ug/kg		5.0	1		12/26/13 14:39	74-97-5	
Bromodichloromethane	ND ug/kg		5.0	1		12/26/13 14:39	75-27-4	
Bromoform	ND ug/kg		5.0	1		12/26/13 14:39	75-25-2	
Bromomethane	ND ug/kg		10	1		12/26/13 14:39	74-83-9	
2-Butanone (MEK)	ND ug/kg		99.6	1		12/26/13 14:39	78-93-3	
n-Butylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	104-51-8	
sec-Butylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	135-98-8	
tert-Butylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	98-06-6	
Carbon tetrachloride	ND ug/kg		5.0	1		12/26/13 14:39	56-23-5	
Chlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	108-90-7	
Chloroethane	ND ug/kg		10	1		12/26/13 14:39	75-00-3	
Chloroform	ND ug/kg		5.0	1		12/26/13 14:39	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-1**      Lab ID: **92184133006**      Collected: 12/19/13 11:10      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		10	1		12/26/13 14:39	74-87-3	
2-Chlorotoluene	ND ug/kg		5.0	1		12/26/13 14:39	95-49-8	
4-Chlorotoluene	ND ug/kg		5.0	1		12/26/13 14:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.0	1		12/26/13 14:39	96-12-8	
Dibromochloromethane	ND ug/kg		5.0	1		12/26/13 14:39	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.0	1		12/26/13 14:39	106-93-4	
Dibromomethane	ND ug/kg		5.0	1		12/26/13 14:39	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10	1		12/26/13 14:39	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.0	1		12/26/13 14:39	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.0	1		12/26/13 14:39	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.0	1		12/26/13 14:39	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.0	1		12/26/13 14:39	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.0	1		12/26/13 14:39	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.0	1		12/26/13 14:39	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.0	1		12/26/13 14:39	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.0	1		12/26/13 14:39	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.0	1		12/26/13 14:39	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.0	1		12/26/13 14:39	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.0	1		12/26/13 14:39	10061-02-6	
Diisopropyl ether	ND ug/kg		5.0	1		12/26/13 14:39	108-20-3	
Ethylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.0	1		12/26/13 14:39	87-68-3	
2-Hexanone	ND ug/kg		49.8	1		12/26/13 14:39	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.0	1		12/26/13 14:39	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.0	1		12/26/13 14:39	99-87-6	
Methylene Chloride	ND ug/kg		19.9	1		12/26/13 14:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		49.8	1		12/26/13 14:39	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.0	1		12/26/13 14:39	1634-04-4	
Naphthalene	ND ug/kg		5.0	1		12/26/13 14:39	91-20-3	
n-Propylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	103-65-1	
Styrene	ND ug/kg		5.0	1		12/26/13 14:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.0	1		12/26/13 14:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.0	1		12/26/13 14:39	79-34-5	
Tetrachloroethene	ND ug/kg		5.0	1		12/26/13 14:39	127-18-4	
Toluene	ND ug/kg		5.0	1		12/26/13 14:39	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.0	1		12/26/13 14:39	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.0	1		12/26/13 14:39	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.0	1		12/26/13 14:39	79-00-5	
Trichloroethene	ND ug/kg		5.0	1		12/26/13 14:39	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.0	1		12/26/13 14:39	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.0	1		12/26/13 14:39	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-3-1**      Lab ID: **92184133006**      Collected: 12/19/13 11:10      Received: 12/19/13 15:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		5.0	1		12/26/13 14:39	108-67-8	
Vinyl acetate	ND ug/kg		49.8	1		12/26/13 14:39	108-05-4	
Vinyl chloride	ND ug/kg		10	1		12/26/13 14:39	75-01-4	
Xylene (Total)	ND ug/kg		10	1		12/26/13 14:39	1330-20-7	
m&p-Xylene	ND ug/kg		10	1		12/26/13 14:39	179601-23-1	
o-Xylene	ND ug/kg		5.0	1		12/26/13 14:39	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	100 %		70-130	1		12/26/13 14:39	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		12/26/13 14:39	460-00-4	
1,2-Dichloroethane-d4 (S)	122 %		70-132	1		12/26/13 14:39	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>26.1 %</b>		0.10	1		12/20/13 16:56		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-2**      Lab ID: **92184133007**      Collected: 12/19/13 11:20      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	83-32-9	
Acenaphthylene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	208-96-8	
Aniline	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	62-53-3	
Anthracene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	120-12-7	
Benzo(a)anthracene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	56-55-3	
Benzo(a)pyrene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	207-08-9	
Benzoic Acid	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	65-85-0	
Benzyl alcohol	ND ug/kg		830	1	12/20/13 10:30	12/24/13 13:17	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	101-55-3	
Butylbenzylphthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		830	1	12/20/13 10:30	12/24/13 13:17	59-50-7	
4-Chloroaniline	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	108-60-1	
2-Chloronaphthalene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	91-58-7	
2-Chlorophenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	7005-72-3	
Chrysene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	53-70-3	
Dibenzofuran	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	91-94-1	
2,4-Dichlorophenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	120-83-2	
Diethylphthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	84-66-2	
2,4-Dimethylphenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	105-67-9	
Dimethylphthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	131-11-3	
Di-n-butylphthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		830	1	12/20/13 10:30	12/24/13 13:17	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	606-20-2	
Di-n-octylphthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	117-81-7	
Fluoranthene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	206-44-0	
Fluorene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	87-68-3	
Hexachlorobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	77-47-4	
Hexachloroethane	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-2**      Lab ID: **92184133007**      Collected: 12/19/13 11:20      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	78-59-1	
1-Methylnaphthalene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	90-12-0	
2-Methylnaphthalene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17		
Naphthalene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	91-20-3	
2-Nitroaniline	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	88-74-4	
3-Nitroaniline	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	99-09-2	
4-Nitroaniline	ND ug/kg		830	1	12/20/13 10:30	12/24/13 13:17	100-01-6	
Nitrobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	98-95-3	
2-Nitrophenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	88-75-5	
4-Nitrophenol	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	86-30-6	
Pentachlorophenol	ND ug/kg		2080	1	12/20/13 10:30	12/24/13 13:17	87-86-5	
Phenanthrene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	85-01-8	
Phenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	108-95-2	
Pyrene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		415	1	12/20/13 10:30	12/24/13 13:17	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	74 %		23-110	1	12/20/13 10:30	12/24/13 13:17	4165-60-0	
2-Fluorobiphenyl (S)	69 %		30-110	1	12/20/13 10:30	12/24/13 13:17	321-60-8	
Terphenyl-d14 (S)	58 %		28-110	1	12/20/13 10:30	12/24/13 13:17	1718-51-0	
Phenol-d6 (S)	68 %		22-110	1	12/20/13 10:30	12/24/13 13:17	13127-88-3	
2-Fluorophenol (S)	64 %		13-110	1	12/20/13 10:30	12/24/13 13:17	367-12-4	
2,4,6-Tribromophenol (S)	56 %		27-110	1	12/20/13 10:30	12/24/13 13:17	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		90.0	1		12/26/13 14:59	67-64-1	
Benzene	ND ug/kg		4.5	1		12/26/13 14:59	71-43-2	
Bromobenzene	ND ug/kg		4.5	1		12/26/13 14:59	108-86-1	
Bromochloromethane	ND ug/kg		4.5	1		12/26/13 14:59	74-97-5	
Bromodichloromethane	ND ug/kg		4.5	1		12/26/13 14:59	75-27-4	
Bromoform	ND ug/kg		4.5	1		12/26/13 14:59	75-25-2	
Bromomethane	ND ug/kg		9.0	1		12/26/13 14:59	74-83-9	
2-Butanone (MEK)	ND ug/kg		90.0	1		12/26/13 14:59	78-93-3	
n-Butylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	104-51-8	
sec-Butylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	135-98-8	
tert-Butylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	98-06-6	
Carbon tetrachloride	ND ug/kg		4.5	1		12/26/13 14:59	56-23-5	
Chlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	108-90-7	
Chloroethane	ND ug/kg		9.0	1		12/26/13 14:59	75-00-3	
Chloroform	ND ug/kg		4.5	1		12/26/13 14:59	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-2**      Lab ID: **92184133007**      Collected: 12/19/13 11:20      Received: 12/19/13 15:00      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							
Chloromethane	ND ug/kg		9.0	1		12/26/13 14:59	74-87-3	
2-Chlorotoluene	ND ug/kg		4.5	1		12/26/13 14:59	95-49-8	
4-Chlorotoluene	ND ug/kg		4.5	1		12/26/13 14:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.5	1		12/26/13 14:59	96-12-8	
Dibromochloromethane	ND ug/kg		4.5	1		12/26/13 14:59	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.5	1		12/26/13 14:59	106-93-4	
Dibromomethane	ND ug/kg		4.5	1		12/26/13 14:59	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.0	1		12/26/13 14:59	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.5	1		12/26/13 14:59	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.5	1		12/26/13 14:59	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.5	1		12/26/13 14:59	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.5	1		12/26/13 14:59	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.5	1		12/26/13 14:59	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.5	1		12/26/13 14:59	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.5	1		12/26/13 14:59	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.5	1		12/26/13 14:59	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.5	1		12/26/13 14:59	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.5	1		12/26/13 14:59	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.5	1		12/26/13 14:59	10061-02-6	
Diisopropyl ether	ND ug/kg		4.5	1		12/26/13 14:59	108-20-3	
Ethylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.5	1		12/26/13 14:59	87-68-3	
2-Hexanone	ND ug/kg		45.0	1		12/26/13 14:59	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.5	1		12/26/13 14:59	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.5	1		12/26/13 14:59	99-87-6	
Methylene Chloride	ND ug/kg		18.0	1		12/26/13 14:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		45.0	1		12/26/13 14:59	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.5	1		12/26/13 14:59	1634-04-4	
Naphthalene	ND ug/kg		4.5	1		12/26/13 14:59	91-20-3	
n-Propylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	103-65-1	
Styrene	ND ug/kg		4.5	1		12/26/13 14:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.5	1		12/26/13 14:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.5	1		12/26/13 14:59	79-34-5	
Tetrachloroethene	ND ug/kg		4.5	1		12/26/13 14:59	127-18-4	
Toluene	ND ug/kg		4.5	1		12/26/13 14:59	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.5	1		12/26/13 14:59	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.5	1		12/26/13 14:59	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.5	1		12/26/13 14:59	79-00-5	
Trichloroethene	ND ug/kg		4.5	1		12/26/13 14:59	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.5	1		12/26/13 14:59	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.5	1		12/26/13 14:59	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	95-63-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-3-2**      Lab ID: **92184133007**      Collected: 12/19/13 11:20      Received: 12/19/13 15:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		4.5	1		12/26/13 14:59	108-67-8	
Vinyl acetate	ND ug/kg		45.0	1		12/26/13 14:59	108-05-4	
Vinyl chloride	ND ug/kg		9.0	1		12/26/13 14:59	75-01-4	
Xylene (Total)	ND ug/kg		9.0	1		12/26/13 14:59	1330-20-7	
m&p-Xylene	ND ug/kg		9.0	1		12/26/13 14:59	179601-23-1	
o-Xylene	ND ug/kg		4.5	1		12/26/13 14:59	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/26/13 14:59	2037-26-5	
4-Bromofluorobenzene (S)	101 %		70-130	1		12/26/13 14:59	460-00-4	
1,2-Dichloroethane-d4 (S)	113 %		70-132	1		12/26/13 14:59	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>20.5 %</b>		0.10	1		12/20/13 16:56		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-3**      Lab ID: **92184133008**      Collected: 12/19/13 11:30      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	83-32-9	
Acenaphthylene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	208-96-8	
Aniline	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	62-53-3	
Anthracene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	120-12-7	
Benzo(a)anthracene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	56-55-3	
Benzo(a)pyrene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	207-08-9	
Benzoic Acid	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	65-85-0	
Benzyl alcohol	ND ug/kg		839	1	12/20/13 10:30	12/24/13 13:48	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	101-55-3	
Butylbenzylphthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		839	1	12/20/13 10:30	12/24/13 13:48	59-50-7	
4-Chloroaniline	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	108-60-1	
2-Chloronaphthalene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	91-58-7	
2-Chlorophenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	7005-72-3	
Chrysene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	53-70-3	
Dibenzofuran	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	91-94-1	
2,4-Dichlorophenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	120-83-2	
Diethylphthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	84-66-2	
2,4-Dimethylphenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	105-67-9	
Dimethylphthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	131-11-3	
Di-n-butylphthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		839	1	12/20/13 10:30	12/24/13 13:48	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	606-20-2	
Di-n-octylphthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	117-81-7	
Fluoranthene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	206-44-0	
Fluorene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	87-68-3	
Hexachlorobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	77-47-4	
Hexachloroethane	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-3**      Lab ID: **92184133008**      Collected: 12/19/13 11:30      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	78-59-1	
1-Methylnaphthalene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	90-12-0	
2-Methylnaphthalene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48		
Naphthalene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	91-20-3	
2-Nitroaniline	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	88-74-4	
3-Nitroaniline	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	99-09-2	
4-Nitroaniline	ND ug/kg		839	1	12/20/13 10:30	12/24/13 13:48	100-01-6	
Nitrobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	98-95-3	
2-Nitrophenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	88-75-5	
4-Nitrophenol	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	86-30-6	
Pentachlorophenol	ND ug/kg		2100	1	12/20/13 10:30	12/24/13 13:48	87-86-5	
Phenanthrene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	85-01-8	
Phenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	108-95-2	
Pyrene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		420	1	12/20/13 10:30	12/24/13 13:48	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	68 %		23-110	1	12/20/13 10:30	12/24/13 13:48	4165-60-0	
2-Fluorobiphenyl (S)	70 %		30-110	1	12/20/13 10:30	12/24/13 13:48	321-60-8	
Terphenyl-d14 (S)	75 %		28-110	1	12/20/13 10:30	12/24/13 13:48	1718-51-0	
Phenol-d6 (S)	77 %		22-110	1	12/20/13 10:30	12/24/13 13:48	13127-88-3	
2-Fluorophenol (S)	69 %		13-110	1	12/20/13 10:30	12/24/13 13:48	367-12-4	
2,4,6-Tribromophenol (S)	73 %		27-110	1	12/20/13 10:30	12/24/13 13:48	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		99.3	1		12/26/13 15:18	67-64-1	
Benzene	ND ug/kg		5.0	1		12/26/13 15:18	71-43-2	
Bromobenzene	ND ug/kg		5.0	1		12/26/13 15:18	108-86-1	
Bromochloromethane	ND ug/kg		5.0	1		12/26/13 15:18	74-97-5	
Bromodichloromethane	ND ug/kg		5.0	1		12/26/13 15:18	75-27-4	
Bromoform	ND ug/kg		5.0	1		12/26/13 15:18	75-25-2	
Bromomethane	ND ug/kg		9.9	1		12/26/13 15:18	74-83-9	
2-Butanone (MEK)	ND ug/kg		99.3	1		12/26/13 15:18	78-93-3	
n-Butylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	104-51-8	
sec-Butylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	135-98-8	
tert-Butylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	98-06-6	
Carbon tetrachloride	ND ug/kg		5.0	1		12/26/13 15:18	56-23-5	
Chlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	108-90-7	
Chloroethane	ND ug/kg		9.9	1		12/26/13 15:18	75-00-3	
Chloroform	ND ug/kg		5.0	1		12/26/13 15:18	67-66-3	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-3                      Lab ID: 92184133008              Collected: 12/19/13 11:30              Received: 12/19/13 15:00              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						
Chloromethane	ND ug/kg		9.9	1		12/26/13 15:18	74-87-3	
2-Chlorotoluene	ND ug/kg		5.0	1		12/26/13 15:18	95-49-8	
4-Chlorotoluene	ND ug/kg		5.0	1		12/26/13 15:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.0	1		12/26/13 15:18	96-12-8	
Dibromochloromethane	ND ug/kg		5.0	1		12/26/13 15:18	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.0	1		12/26/13 15:18	106-93-4	
Dibromomethane	ND ug/kg		5.0	1		12/26/13 15:18	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.9	1		12/26/13 15:18	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.0	1		12/26/13 15:18	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.0	1		12/26/13 15:18	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.0	1		12/26/13 15:18	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.0	1		12/26/13 15:18	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.0	1		12/26/13 15:18	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.0	1		12/26/13 15:18	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.0	1		12/26/13 15:18	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.0	1		12/26/13 15:18	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.0	1		12/26/13 15:18	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.0	1		12/26/13 15:18	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.0	1		12/26/13 15:18	10061-02-6	
Diisopropyl ether	ND ug/kg		5.0	1		12/26/13 15:18	108-20-3	
Ethylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.0	1		12/26/13 15:18	87-68-3	
2-Hexanone	ND ug/kg		49.7	1		12/26/13 15:18	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.0	1		12/26/13 15:18	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.0	1		12/26/13 15:18	99-87-6	
Methylene Chloride	ND ug/kg		19.9	1		12/26/13 15:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		49.7	1		12/26/13 15:18	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.0	1		12/26/13 15:18	1634-04-4	
Naphthalene	ND ug/kg		5.0	1		12/26/13 15:18	91-20-3	
n-Propylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	103-65-1	
Styrene	ND ug/kg		5.0	1		12/26/13 15:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.0	1		12/26/13 15:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.0	1		12/26/13 15:18	79-34-5	
Tetrachloroethene	ND ug/kg		5.0	1		12/26/13 15:18	127-18-4	
Toluene	ND ug/kg		5.0	1		12/26/13 15:18	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.0	1		12/26/13 15:18	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.0	1		12/26/13 15:18	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.0	1		12/26/13 15:18	79-00-5	
Trichloroethene	ND ug/kg		5.0	1		12/26/13 15:18	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.0	1		12/26/13 15:18	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.0	1		12/26/13 15:18	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	95-63-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Sample: S-3-3 Lab ID: 92184133008 Collected: 12/19/13 11:30 Received: 12/19/13 15:00 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						
1,3,5-Trimethylbenzene	ND ug/kg		5.0	1		12/26/13 15:18	108-67-8	
Vinyl acetate	ND ug/kg		49.7	1		12/26/13 15:18	108-05-4	
Vinyl chloride	ND ug/kg		9.9	1		12/26/13 15:18	75-01-4	
Xylene (Total)	ND ug/kg		9.9	1		12/26/13 15:18	1330-20-7	
m&p-Xylene	ND ug/kg		9.9	1		12/26/13 15:18	179601-23-1	
o-Xylene	ND ug/kg		5.0	1		12/26/13 15:18	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		12/26/13 15:18	2037-26-5	
4-Bromofluorobenzene (S)	100 %		70-130	1		12/26/13 15:18	460-00-4	
1,2-Dichloroethane-d4 (S)	123 %		70-132	1		12/26/13 15:18	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	21.4 %		0.10	1		12/20/13 16:56		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-4**      Lab ID: **92184133009**      Collected: 12/19/13 11:55      Received: 12/19/13 15:00      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						
Acenaphthene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	83-32-9	
Acenaphthylene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	208-96-8	
Aniline	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	62-53-3	
Anthracene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	120-12-7	
Benzo(a)anthracene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	56-55-3	
Benzo(a)pyrene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	207-08-9	
Benzoic Acid	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	65-85-0	
Benzyl alcohol	ND ug/kg		812	1	12/20/13 10:30	12/24/13 14:19	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	101-55-3	
Butylbenzylphthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		812	1	12/20/13 10:30	12/24/13 14:19	59-50-7	
4-Chloroaniline	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	108-60-1	
2-Chloronaphthalene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	91-58-7	
2-Chlorophenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	7005-72-3	
Chrysene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	53-70-3	
Dibenzofuran	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	91-94-1	
2,4-Dichlorophenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	120-83-2	
Diethylphthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	84-66-2	
2,4-Dimethylphenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	105-67-9	
Dimethylphthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	131-11-3	
Di-n-butylphthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		812	1	12/20/13 10:30	12/24/13 14:19	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	606-20-2	
Di-n-octylphthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	117-81-7	
Fluoranthene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	206-44-0	
Fluorene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	87-68-3	
Hexachlorobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	77-47-4	
Hexachloroethane	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	193-39-5	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-4**      Lab ID: **92184133009**      Collected: 12/19/13 11:55      Received: 12/19/13 15:00      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						
Isophorone	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	78-59-1	
1-Methylnaphthalene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	90-12-0	
2-Methylnaphthalene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19		
Naphthalene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	91-20-3	
2-Nitroaniline	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	88-74-4	
3-Nitroaniline	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	99-09-2	
4-Nitroaniline	ND ug/kg		812	1	12/20/13 10:30	12/24/13 14:19	100-01-6	
Nitrobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	98-95-3	
2-Nitrophenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	88-75-5	
4-Nitrophenol	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	86-30-6	
Pentachlorophenol	ND ug/kg		2030	1	12/20/13 10:30	12/24/13 14:19	87-86-5	
Phenanthrene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	85-01-8	
Phenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	108-95-2	
Pyrene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		406	1	12/20/13 10:30	12/24/13 14:19	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	43 %		23-110	1	12/20/13 10:30	12/24/13 14:19	4165-60-0	
2-Fluorobiphenyl (S)	39 %		30-110	1	12/20/13 10:30	12/24/13 14:19	321-60-8	
Terphenyl-d14 (S)	42 %		28-110	1	12/20/13 10:30	12/24/13 14:19	1718-51-0	
Phenol-d6 (S)	39 %		22-110	1	12/20/13 10:30	12/24/13 14:19	13127-88-3	
2-Fluorophenol (S)	38 %		13-110	1	12/20/13 10:30	12/24/13 14:19	367-12-4	
2,4,6-Tribromophenol (S)	31 %		27-110	1	12/20/13 10:30	12/24/13 14:19	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		90.1	1		12/26/13 15:38	67-64-1	
Benzene	ND ug/kg		4.5	1		12/26/13 15:38	71-43-2	
Bromobenzene	ND ug/kg		4.5	1		12/26/13 15:38	108-86-1	
Bromochloromethane	ND ug/kg		4.5	1		12/26/13 15:38	74-97-5	
Bromodichloromethane	ND ug/kg		4.5	1		12/26/13 15:38	75-27-4	
Bromoform	ND ug/kg		4.5	1		12/26/13 15:38	75-25-2	
Bromomethane	ND ug/kg		9.0	1		12/26/13 15:38	74-83-9	
2-Butanone (MEK)	ND ug/kg		90.1	1		12/26/13 15:38	78-93-3	
n-Butylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	104-51-8	
sec-Butylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	135-98-8	
tert-Butylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	98-06-6	
Carbon tetrachloride	ND ug/kg		4.5	1		12/26/13 15:38	56-23-5	
Chlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	108-90-7	
Chloroethane	ND ug/kg		9.0	1		12/26/13 15:38	75-00-3	
Chloroform	ND ug/kg		4.5	1		12/26/13 15:38	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-4**      **Lab ID: 92184133009**      Collected: 12/19/13 11:55      Received: 12/19/13 15:00      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						
Chloromethane	ND ug/kg		9.0	1		12/26/13 15:38	74-87-3	
2-Chlorotoluene	ND ug/kg		4.5	1		12/26/13 15:38	95-49-8	
4-Chlorotoluene	ND ug/kg		4.5	1		12/26/13 15:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.5	1		12/26/13 15:38	96-12-8	
Dibromochloromethane	ND ug/kg		4.5	1		12/26/13 15:38	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.5	1		12/26/13 15:38	106-93-4	
Dibromomethane	ND ug/kg		4.5	1		12/26/13 15:38	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.0	1		12/26/13 15:38	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.5	1		12/26/13 15:38	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.5	1		12/26/13 15:38	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.5	1		12/26/13 15:38	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.5	1		12/26/13 15:38	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.5	1		12/26/13 15:38	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.5	1		12/26/13 15:38	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.5	1		12/26/13 15:38	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.5	1		12/26/13 15:38	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.5	1		12/26/13 15:38	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.5	1		12/26/13 15:38	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.5	1		12/26/13 15:38	10061-02-6	
Diisopropyl ether	ND ug/kg		4.5	1		12/26/13 15:38	108-20-3	
Ethylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.5	1		12/26/13 15:38	87-68-3	
2-Hexanone	ND ug/kg		45.1	1		12/26/13 15:38	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.5	1		12/26/13 15:38	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.5	1		12/26/13 15:38	99-87-6	
Methylene Chloride	ND ug/kg		18.0	1		12/26/13 15:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		45.1	1		12/26/13 15:38	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.5	1		12/26/13 15:38	1634-04-4	
Naphthalene	ND ug/kg		4.5	1		12/26/13 15:38	91-20-3	
n-Propylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	103-65-1	
Styrene	ND ug/kg		4.5	1		12/26/13 15:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.5	1		12/26/13 15:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.5	1		12/26/13 15:38	79-34-5	
Tetrachloroethene	ND ug/kg		4.5	1		12/26/13 15:38	127-18-4	
Toluene	ND ug/kg		4.5	1		12/26/13 15:38	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.5	1		12/26/13 15:38	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.5	1		12/26/13 15:38	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.5	1		12/26/13 15:38	79-00-5	
Trichloroethene	ND ug/kg		4.5	1		12/26/13 15:38	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.5	1		12/26/13 15:38	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.5	1		12/26/13 15:38	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	95-63-6	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-3-4**      Lab ID: **92184133009**      Collected: 12/19/13 11:55      Received: 12/19/13 15:00      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						
1,3,5-Trimethylbenzene	ND ug/kg		4.5	1		12/26/13 15:38	108-67-8	
Vinyl acetate	ND ug/kg		45.1	1		12/26/13 15:38	108-05-4	
Vinyl chloride	ND ug/kg		9.0	1		12/26/13 15:38	75-01-4	
Xylene (Total)	ND ug/kg		9.0	1		12/26/13 15:38	1330-20-7	
m&p-Xylene	ND ug/kg		9.0	1		12/26/13 15:38	179601-23-1	
o-Xylene	ND ug/kg		4.5	1		12/26/13 15:38	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/26/13 15:38	2037-26-5	
4-Bromofluorobenzene (S)	98 %		70-130	1		12/26/13 15:38	460-00-4	
1,2-Dichloroethane-d4 (S)	121 %		70-132	1		12/26/13 15:38	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	18.7 %		0.10	1		12/20/13 17:12		

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-4-2**      Lab ID: **92184133010**      Collected: 12/19/13 09:40      Received: 12/19/13 15:00      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	12/20/13 13:12	12/24/13 12:53	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	74 %		41-119	1	12/20/13 13:12	12/24/13 12:53	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.7	1	12/31/13 13:36	12/31/13 18:17	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	104 %		70-167	1	12/31/13 13:36	12/31/13 18:17	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>14.6 %</b>		0.10	1			12/20/13 17:12	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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**Sample: S-3-5**      Lab ID: **92184133011**      Collected: 12/19/13 12:15      Received: 12/19/13 15:00      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		6.0	1	12/20/13 13:12	12/24/13 13:16	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	87 %		41-119	1	12/20/13 13:12	12/24/13 13:16	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.5	1	12/31/13 13:36	12/31/13 19:27	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	102 %		70-167	1	12/31/13 13:36	12/31/13 19:27	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.7 %</b>		0.10	1			12/20/13 17:12	

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## ANALYTICAL RESULTS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**Sample: S-3-6**      Lab ID: **92184133012**      Collected: 12/19/13 12:30      Received: 12/19/13 15:00      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		6.2	1	12/20/13 13:12	12/24/13 13:16	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	81 %		41-119	1	12/20/13 13:12	12/24/13 13:16	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.3	1	12/31/13 13:36	12/31/13 19:50	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	106 %		70-167	1	12/31/13 13:36	12/31/13 19:50	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>19.6 %</b>		0.10	1			12/20/13 17:12	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	GCV/7664	Analysis Method:	EPA 8015 Modified
QC Batch Method:	EPA 5035A/5030B	Analysis Description:	Gasoline Range Organics
Associated Lab Samples:	92184133010, 92184133011, 92184133012		

METHOD BLANK: 1114779 Matrix: Solid

Associated Lab Samples: 92184133010, 92184133011, 92184133012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	12/31/13 17:54	
4-Bromofluorobenzene (S)	%	106	70-167	12/31/13 17:54	

LABORATORY CONTROL SAMPLE: 1114780

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	49.7	50.3	101	70-165	
4-Bromofluorobenzene (S)	%			105	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1114781 1114782

Parameter	Units	92184133010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gasoline Range Organics	mg/kg	ND	47.3	47.3	50.9	51.7	108	109	47-187	2	
4-Bromofluorobenzene (S)	%						105	103	70-167		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	MSV/25355	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184133001		

METHOD BLANK: 1112341                          Matrix: Solid

Associated Lab Samples: 92184133001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,1-Trichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1,2-Trichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
1,1-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,3-Trichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,3-Trichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,2,4-Trichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2,4-Trimethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichloroethane	ug/kg	ND	5.6	12/24/13 11:24	
1,2-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,3,5-Trimethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,3-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
1,3-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
1,4-Dichlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
2,2-Dichloropropane	ug/kg	ND	5.6	12/24/13 11:24	
2-Butanone (MEK)	ug/kg	ND	112	12/24/13 11:24	
2-Chlorotoluene	ug/kg	ND	5.6	12/24/13 11:24	
2-Hexanone	ug/kg	ND	56.2	12/24/13 11:24	
4-Chlorotoluene	ug/kg	ND	5.6	12/24/13 11:24	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	56.2	12/24/13 11:24	
Acetone	ug/kg	ND	112	12/24/13 11:24	
Benzene	ug/kg	ND	5.6	12/24/13 11:24	
Bromobenzene	ug/kg	ND	5.6	12/24/13 11:24	
Bromochloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Bromodichloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Bromoform	ug/kg	ND	5.6	12/24/13 11:24	
Bromomethane	ug/kg	ND	11.2	12/24/13 11:24	
Carbon tetrachloride	ug/kg	ND	5.6	12/24/13 11:24	
Chlorobenzene	ug/kg	ND	5.6	12/24/13 11:24	
Chloroethane	ug/kg	ND	11.2	12/24/13 11:24	
Chloroform	ug/kg	ND	5.6	12/24/13 11:24	
Chloromethane	ug/kg	ND	11.2	12/24/13 11:24	
cis-1,2-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
cis-1,3-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
Dibromochloromethane	ug/kg	ND	5.6	12/24/13 11:24	
Dibromomethane	ug/kg	ND	5.6	12/24/13 11:24	
Dichlorodifluoromethane	ug/kg	ND	11.2	12/24/13 11:24	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

METHOD BLANK: 1112341

Matrix: Solid

Associated Lab Samples: 92184133001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.6	12/24/13 11:24	
Ethylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Hexachloro-1,3-butadiene	ug/kg	ND	5.6	12/24/13 11:24	
Isopropylbenzene (Cumene)	ug/kg	ND	5.6	12/24/13 11:24	
m&p-Xylene	ug/kg	ND	11.2	12/24/13 11:24	
Methyl-tert-butyl ether	ug/kg	ND	5.6	12/24/13 11:24	
Methylene Chloride	ug/kg	ND	22.5	12/24/13 11:24	
n-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
n-Propylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Naphthalene	ug/kg	ND	5.6	12/24/13 11:24	
o-Xylene	ug/kg	ND	5.6	12/24/13 11:24	
p-Isopropyltoluene	ug/kg	ND	5.6	12/24/13 11:24	
sec-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Styrene	ug/kg	ND	5.6	12/24/13 11:24	
tert-Butylbenzene	ug/kg	ND	5.6	12/24/13 11:24	
Tetrachloroethene	ug/kg	ND	5.6	12/24/13 11:24	
Toluene	ug/kg	ND	5.6	12/24/13 11:24	
trans-1,2-Dichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
trans-1,3-Dichloropropene	ug/kg	ND	5.6	12/24/13 11:24	
Trichloroethene	ug/kg	ND	5.6	12/24/13 11:24	
Trichlorofluoromethane	ug/kg	ND	5.6	12/24/13 11:24	
Vinyl acetate	ug/kg	ND	56.2	12/24/13 11:24	
Vinyl chloride	ug/kg	ND	11.2	12/24/13 11:24	
Xylene (Total)	ug/kg	ND	11.2	12/24/13 11:24	
1,2-Dichloroethane-d4 (S)	%	110	70-132	12/24/13 11:24	
4-Bromofluorobenzene (S)	%	100	70-130	12/24/13 11:24	
Toluene-d8 (S)	%	99	70-130	12/24/13 11:24	

LABORATORY CONTROL SAMPLE: 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	51.7	55.1	107	70-131	
1,1,1-Trichloroethane	ug/kg	51.7	56.6	110	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	51.7	62.7	121	70-130	
1,1,2-Trichloroethane	ug/kg	51.7	56.0	108	70-132	
1,1-Dichloroethane	ug/kg	51.7	59.7	116	70-143	
1,1-Dichloroethene	ug/kg	51.7	58.2	113	70-137	
1,1-Dichloropropene	ug/kg	51.7	61.4	119	70-135	
1,2,3-Trichlorobenzene	ug/kg	51.7	53.5	104	69-153	
1,2,3-Trichloropropane	ug/kg	51.7	63.4	123	70-130	
1,2,4-Trichlorobenzene	ug/kg	51.7	51.3	99	55-171	
1,2,4-Trimethylbenzene	ug/kg	51.7	54.7	106	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	51.7	55.8	108	68-141	
1,2-Dibromoethane (EDB)	ug/kg	51.7	61.3	119	70-130	
1,2-Dichlorobenzene	ug/kg	51.7	50.5	98	70-140	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

LABORATORY CONTROL SAMPLE: 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	51.7	61.2	118	70-137	
1,2-Dichloropropane	ug/kg	51.7	54.8	106	70-133	
1,3,5-Trimethylbenzene	ug/kg	51.7	53.7	104	70-143	
1,3-Dichlorobenzene	ug/kg	51.7	49.4	96	70-144	
1,3-Dichloropropane	ug/kg	51.7	63.6	123	70-132	
1,4-Dichlorobenzene	ug/kg	51.7	50.6	98	70-142	
2,2-Dichloropropane	ug/kg	51.7	57.7	112	68-152	
2-Butanone (MEK)	ug/kg	103	131	127	70-149	
2-Chlorotoluene	ug/kg	51.7	49.8	96	70-141	
2-Hexanone	ug/kg	103	123	119	70-149	
4-Chlorotoluene	ug/kg	51.7	54.3	105	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	103	113	109	70-153	
Acetone	ug/kg	103	119	115	70-157	
Benzene	ug/kg	51.7	55.1	107	70-130	
Bromobenzene	ug/kg	51.7	55.3	107	70-141	
Bromochloromethane	ug/kg	51.7	52.4	101	70-149	
Bromodichloromethane	ug/kg	51.7	52.8	102	70-130	
Bromoform	ug/kg	51.7	53.1	103	70-131	
Bromomethane	ug/kg	51.7	55.4	107	64-136	
Carbon tetrachloride	ug/kg	51.7	49.0	95	70-154	
Chlorobenzene	ug/kg	51.7	55.4	107	70-135	
Chloroethane	ug/kg	51.7	57.6	112	68-151	
Chloroform	ug/kg	51.7	57.3	111	70-130	
Chloromethane	ug/kg	51.7	61.1	118	70-132	
cis-1,2-Dichloroethene	ug/kg	51.7	58.7	114	70-140	
cis-1,3-Dichloropropene	ug/kg	51.7	54.0	105	70-137	
Dibromochloromethane	ug/kg	51.7	57.1	111	70-130	
Dibromomethane	ug/kg	51.7	54.4	105	70-136	
Dichlorodifluoromethane	ug/kg	51.7	43.3	84	36-148	
Diisopropyl ether	ug/kg	51.7	59.0	114	70-139	
Ethylbenzene	ug/kg	51.7	54.1	105	70-137	
Hexachloro-1,3-butadiene	ug/kg	51.7	51.4	99	70-145	
Isopropylbenzene (Cumene)	ug/kg	51.7	56.5	109	70-141	
m&p-Xylene	ug/kg	103	110	106	70-140	
Methyl-tert-butyl ether	ug/kg	51.7	63.9	124	45-150	
Methylene Chloride	ug/kg	51.7	53.7	104	70-133	
n-Butylbenzene	ug/kg	51.7	54.7	106	65-155	
n-Propylbenzene	ug/kg	51.7	54.3	105	70-148	
Naphthalene	ug/kg	51.7	55.5	107	70-148	
o-Xylene	ug/kg	51.7	54.6	106	70-141	
p-Isopropyltoluene	ug/kg	51.7	51.0	99	70-148	
sec-Butylbenzene	ug/kg	51.7	54.5	106	70-145	
Styrene	ug/kg	51.7	55.3	107	70-138	
tert-Butylbenzene	ug/kg	51.7	50.9	99	70-143	
Tetrachloroethene	ug/kg	51.7	52.2	101	70-140	
Toluene	ug/kg	51.7	49.2	95	70-130	
trans-1,2-Dichloroethene	ug/kg	51.7	59.0	114	70-136	
trans-1,3-Dichloropropene	ug/kg	51.7	55.8	108	70-138	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**LABORATORY CONTROL SAMPLE:** 1112342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	51.7	49.2	95	70-132	
Trichlorofluoromethane	ug/kg	51.7	60.9	118	69-134	
Vinyl acetate	ug/kg	103	140	135	24-161	
Vinyl chloride	ug/kg	51.7	54.5	105	55-140	
Xylene (Total)	ug/kg	155	164	106	70-141	
1,2-Dichloroethane-d4 (S)	%			120	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

**MATRIX SPIKE SAMPLE:** 1112885

Parameter	Units	92184377003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg		ND	31.7	35.8	113	49-180
Benzene	ug/kg		ND	31.7	33.4	106	50-166
Chlorobenzene	ug/kg		ND	31.7	30.2	95	43-169
Toluene	ug/kg		ND	31.7	27.6	87	52-163
Trichloroethene	ug/kg		ND	31.7	28.7	91	49-167
1,2-Dichloroethane-d4 (S)	%				118	70-132	
4-Bromofluorobenzene (S)	%				86	70-130	
Toluene-d8 (S)	%				93	70-130	

**SAMPLE DUPLICATE:** 1112884

Parameter	Units	92184127002 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	
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	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

SAMPLE DUPLICATE: 1112884

Parameter	Units	92184127002	Dup Result	RPD	Qualifiers
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	218	170	25	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	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		IO
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		
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)	%	118	143	21	S2
4-Bromofluorobenzene (S)	%	92	83	8	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

SAMPLE DUPLICATE: 1112884

Parameter	Units	92184127002	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	96	92	2	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	MSV/25356	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184133002, 92184133003		

METHOD BLANK: 1112344 Matrix: Solid

Associated Lab Samples: 92184133002, 92184133003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,1,1-Trichloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,1,2-Trichloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,1-Dichloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,1-Dichloroethene	ug/kg	ND	4.8	12/24/13 11:04	
1,1-Dichloropropene	ug/kg	ND	4.8	12/24/13 11:04	
1,2,3-Trichlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,2,3-Trichloropropane	ug/kg	ND	4.8	12/24/13 11:04	
1,2,4-Trichlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,2,4-Trimethylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.8	12/24/13 11:04	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.8	12/24/13 11:04	
1,2-Dichlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,2-Dichloroethane	ug/kg	ND	4.8	12/24/13 11:04	
1,2-Dichloropropane	ug/kg	ND	4.8	12/24/13 11:04	
1,3,5-Trimethylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,3-Dichlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
1,3-Dichloropropane	ug/kg	ND	4.8	12/24/13 11:04	
1,4-Dichlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
2,2-Dichloropropane	ug/kg	ND	4.8	12/24/13 11:04	
2-Butanone (MEK)	ug/kg	ND	96.3	12/24/13 11:04	
2-Chlorotoluene	ug/kg	ND	4.8	12/24/13 11:04	
2-Hexanone	ug/kg	ND	48.2	12/24/13 11:04	
4-Chlorotoluene	ug/kg	ND	4.8	12/24/13 11:04	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	48.2	12/24/13 11:04	
Acetone	ug/kg	ND	96.3	12/24/13 11:04	
Benzene	ug/kg	ND	4.8	12/24/13 11:04	
Bromobenzene	ug/kg	ND	4.8	12/24/13 11:04	
Bromochloromethane	ug/kg	ND	4.8	12/24/13 11:04	
Bromodichloromethane	ug/kg	ND	4.8	12/24/13 11:04	
Bromoform	ug/kg	ND	4.8	12/24/13 11:04	
Bromomethane	ug/kg	ND	9.6	12/24/13 11:04	
Carbon tetrachloride	ug/kg	ND	4.8	12/24/13 11:04	
Chlorobenzene	ug/kg	ND	4.8	12/24/13 11:04	
Chloroethane	ug/kg	ND	9.6	12/24/13 11:04	
Chloroform	ug/kg	ND	4.8	12/24/13 11:04	
Chloromethane	ug/kg	ND	9.6	12/24/13 11:04	
cis-1,2-Dichloroethene	ug/kg	ND	4.8	12/24/13 11:04	
cis-1,3-Dichloropropene	ug/kg	ND	4.8	12/24/13 11:04	
Dibromochloromethane	ug/kg	ND	4.8	12/24/13 11:04	
Dibromomethane	ug/kg	ND	4.8	12/24/13 11:04	
Dichlorodifluoromethane	ug/kg	ND	9.6	12/24/13 11:04	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

METHOD BLANK: 1112344

Matrix: Solid

Associated Lab Samples: 92184133002, 92184133003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	4.8	12/24/13 11:04	
Ethylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
Hexachloro-1,3-butadiene	ug/kg	ND	4.8	12/24/13 11:04	
Isopropylbenzene (Cumene)	ug/kg	ND	4.8	12/24/13 11:04	
m&p-Xylene	ug/kg	ND	9.6	12/24/13 11:04	
Methyl-tert-butyl ether	ug/kg	ND	4.8	12/24/13 11:04	
Methylene Chloride	ug/kg	ND	19.3	12/24/13 11:04	
n-Butylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
n-Propylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
Naphthalene	ug/kg	ND	4.8	12/24/13 11:04	
o-Xylene	ug/kg	ND	4.8	12/24/13 11:04	
p-Isopropyltoluene	ug/kg	ND	4.8	12/24/13 11:04	
sec-Butylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
Styrene	ug/kg	ND	4.8	12/24/13 11:04	
tert-Butylbenzene	ug/kg	ND	4.8	12/24/13 11:04	
Tetrachloroethene	ug/kg	ND	4.8	12/24/13 11:04	
Toluene	ug/kg	ND	4.8	12/24/13 11:04	
trans-1,2-Dichloroethene	ug/kg	ND	4.8	12/24/13 11:04	
trans-1,3-Dichloropropene	ug/kg	ND	4.8	12/24/13 11:04	
Trichloroethene	ug/kg	ND	4.8	12/24/13 11:04	
Trichlorofluoromethane	ug/kg	ND	4.8	12/24/13 11:04	
Vinyl acetate	ug/kg	ND	48.2	12/24/13 11:04	
Vinyl chloride	ug/kg	ND	9.6	12/24/13 11:04	
Xylene (Total)	ug/kg	ND	9.6	12/24/13 11:04	
1,2-Dichloroethane-d4 (S)	%	113	70-132	12/24/13 11:04	
4-Bromofluorobenzene (S)	%	100	70-130	12/24/13 11:04	
Toluene-d8 (S)	%	102	70-130	12/24/13 11:04	

LABORATORY CONTROL SAMPLE: 1112345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.7	51.2	101	70-131	
1,1,1-Trichloroethane	ug/kg	50.7	53.1	105	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	50.7	61.3	121	70-130	
1,1,2-Trichloroethane	ug/kg	50.7	53.9	106	70-132	
1,1-Dichloroethane	ug/kg	50.7	55.9	110	70-143	
1,1-Dichloroethene	ug/kg	50.7	55.4	109	70-137	
1,1-Dichloropropene	ug/kg	50.7	56.0	111	70-135	
1,2,3-Trichlorobenzene	ug/kg	50.7	51.6	102	69-153	
1,2,3-Trichloropropane	ug/kg	50.7	54.9	108	70-130	
1,2,4-Trichlorobenzene	ug/kg	50.7	48.2	95	55-171	
1,2,4-Trimethylbenzene	ug/kg	50.7	52.2	103	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	50.7	54.0	106	68-141	
1,2-Dibromoethane (EDB)	ug/kg	50.7	59.1	117	70-130	
1,2-Dichlorobenzene	ug/kg	50.7	49.4	97	70-140	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

LABORATORY CONTROL SAMPLE: 1112345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	50.7	57.1	113	70-137	
1,2-Dichloropropane	ug/kg	50.7	54.5	108	70-133	
1,3,5-Trimethylbenzene	ug/kg	50.7	52.4	103	70-143	
1,3-Dichlorobenzene	ug/kg	50.7	46.9	93	70-144	
1,3-Dichloropropane	ug/kg	50.7	59.8	118	70-132	
1,4-Dichlorobenzene	ug/kg	50.7	48.5	96	70-142	
2,2-Dichloropropane	ug/kg	50.7	52.4	103	68-152	
2-Butanone (MEK)	ug/kg	101	121	120	70-149	
2-Chlorotoluene	ug/kg	50.7	49.1	97	70-141	
2-Hexanone	ug/kg	101	117	115	70-149	
4-Chlorotoluene	ug/kg	50.7	51.8	102	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	107	105	70-153	
Acetone	ug/kg	101	111	109	70-157	
Benzene	ug/kg	50.7	54.5	107	70-130	
Bromobenzene	ug/kg	50.7	54.0	107	70-141	
Bromochloromethane	ug/kg	50.7	48.4	95	70-149	
Bromodichloromethane	ug/kg	50.7	52.7	104	70-130	
Bromoform	ug/kg	50.7	49.8	98	70-131	
Bromomethane	ug/kg	50.7	60.0	118	64-136	
Carbon tetrachloride	ug/kg	50.7	48.0	95	70-154	
Chlorobenzene	ug/kg	50.7	53.3	105	70-135	
Chloroethane	ug/kg	50.7	60.3	119	68-151	
Chloroform	ug/kg	50.7	54.8	108	70-130	
Chloromethane	ug/kg	50.7	60.8	120	70-132	
cis-1,2-Dichloroethene	ug/kg	50.7	55.8	110	70-140	
cis-1,3-Dichloropropene	ug/kg	50.7	53.0	104	70-137	
Dibromochloromethane	ug/kg	50.7	52.0	103	70-130	
Dibromomethane	ug/kg	50.7	53.7	106	70-136	
Dichlorodifluoromethane	ug/kg	50.7	48.2	95	36-148	
Diisopropyl ether	ug/kg	50.7	53.5	106	70-139	
Ethylbenzene	ug/kg	50.7	52.6	104	70-137	
Hexachloro-1,3-butadiene	ug/kg	50.7	50.6	100	70-145	
Isopropylbenzene (Cumene)	ug/kg	50.7	54.3	107	70-141	
m&p-Xylene	ug/kg	101	109	107	70-140	
Methyl-tert-butyl ether	ug/kg	50.7	58.1	115	45-150	
Methylene Chloride	ug/kg	50.7	55.5	109	70-133	
n-Butylbenzene	ug/kg	50.7	52.7	104	65-155	
n-Propylbenzene	ug/kg	50.7	52.9	104	70-148	
Naphthalene	ug/kg	50.7	53.8	106	70-148	
o-Xylene	ug/kg	50.7	53.2	105	70-141	
p-Isopropyltoluene	ug/kg	50.7	50.2	99	70-148	
sec-Butylbenzene	ug/kg	50.7	52.7	104	70-145	
Styrene	ug/kg	50.7	54.0	107	70-138	
tert-Butylbenzene	ug/kg	50.7	50.8	100	70-143	
Tetrachloroethene	ug/kg	50.7	49.9	98	70-140	
Toluene	ug/kg	50.7	49.5	98	70-130	
trans-1,2-Dichloroethene	ug/kg	50.7	55.9	110	70-136	
trans-1,3-Dichloropropene	ug/kg	50.7	53.2	105	70-138	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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LABORATORY CONTROL SAMPLE: 1112345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	50.7	47.1	93	70-132	
Trichlorofluoromethane	ug/kg	50.7	58.8	116	69-134	
Vinyl acetate	ug/kg	101	121	119	24-161	
Vinyl chloride	ug/kg	50.7	58.6	116	55-140	
Xylene (Total)	ug/kg	152	162	106	70-141	
1,2-Dichloroethane-d4 (S)	%			110	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			100	70-130	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	MSV/25369	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184133004, 92184133005, 92184133006, 92184133007, 92184133008, 92184133009		

METHOD BLANK:	1112931	Matrix:	Solid
Associated Lab Samples:	92184133004, 92184133005, 92184133006, 92184133007, 92184133008, 92184133009		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,1,1-Trichloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,1,2-Trichloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,1-Dichloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,1-Dichloroethene	ug/kg	ND	5.5	12/26/13 12:22	
1,1-Dichloropropene	ug/kg	ND	5.5	12/26/13 12:22	
1,2,3-Trichlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,2,3-Trichloropropane	ug/kg	ND	5.5	12/26/13 12:22	
1,2,4-Trichlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,2,4-Trimethylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.5	12/26/13 12:22	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.5	12/26/13 12:22	
1,2-Dichlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,2-Dichloroethane	ug/kg	ND	5.5	12/26/13 12:22	
1,2-Dichloropropane	ug/kg	ND	5.5	12/26/13 12:22	
1,3,5-Trimethylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,3-Dichlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
1,3-Dichloropropane	ug/kg	ND	5.5	12/26/13 12:22	
1,4-Dichlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
2,2-Dichloropropane	ug/kg	ND	5.5	12/26/13 12:22	
2-Butanone (MEK)	ug/kg	ND	109	12/26/13 12:22	
2-Chlorotoluene	ug/kg	ND	5.5	12/26/13 12:22	
2-Hexanone	ug/kg	ND	54.6	12/26/13 12:22	
4-Chlorotoluene	ug/kg	ND	5.5	12/26/13 12:22	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.6	12/26/13 12:22	
Acetone	ug/kg	ND	109	12/26/13 12:22	
Benzene	ug/kg	ND	5.5	12/26/13 12:22	
Bromobenzene	ug/kg	ND	5.5	12/26/13 12:22	
Bromochloromethane	ug/kg	ND	5.5	12/26/13 12:22	
Bromodichloromethane	ug/kg	ND	5.5	12/26/13 12:22	
Bromoform	ug/kg	ND	5.5	12/26/13 12:22	
Bromomethane	ug/kg	ND	10.9	12/26/13 12:22	
Carbon tetrachloride	ug/kg	ND	5.5	12/26/13 12:22	
Chlorobenzene	ug/kg	ND	5.5	12/26/13 12:22	
Chloroethane	ug/kg	ND	10.9	12/26/13 12:22	
Chloroform	ug/kg	ND	5.5	12/26/13 12:22	
Chloromethane	ug/kg	ND	10.9	12/26/13 12:22	
cis-1,2-Dichloroethene	ug/kg	ND	5.5	12/26/13 12:22	
cis-1,3-Dichloropropene	ug/kg	ND	5.5	12/26/13 12:22	
Dibromochloromethane	ug/kg	ND	5.5	12/26/13 12:22	
Dibromomethane	ug/kg	ND	5.5	12/26/13 12:22	
Dichlorodifluoromethane	ug/kg	ND	10.9	12/26/13 12:22	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

METHOD BLANK: 1112931

Matrix: Solid

Associated Lab Samples: 92184133004, 92184133005, 92184133006, 92184133007, 92184133008, 92184133009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.5	12/26/13 12:22	
Ethylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
Hexachloro-1,3-butadiene	ug/kg	ND	5.5	12/26/13 12:22	
Isopropylbenzene (Cumene)	ug/kg	ND	5.5	12/26/13 12:22	
m&p-Xylene	ug/kg	ND	10.9	12/26/13 12:22	
Methyl-tert-butyl ether	ug/kg	ND	5.5	12/26/13 12:22	
Methylene Chloride	ug/kg	ND	21.8	12/26/13 12:22	
n-Butylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
n-Propylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
Naphthalene	ug/kg	ND	5.5	12/26/13 12:22	
o-Xylene	ug/kg	ND	5.5	12/26/13 12:22	
p-Isopropyltoluene	ug/kg	ND	5.5	12/26/13 12:22	
sec-Butylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
Styrene	ug/kg	ND	5.5	12/26/13 12:22	
tert-Butylbenzene	ug/kg	ND	5.5	12/26/13 12:22	
Tetrachloroethene	ug/kg	ND	5.5	12/26/13 12:22	
Toluene	ug/kg	ND	5.5	12/26/13 12:22	
trans-1,2-Dichloroethene	ug/kg	ND	5.5	12/26/13 12:22	
trans-1,3-Dichloropropene	ug/kg	ND	5.5	12/26/13 12:22	
Trichloroethene	ug/kg	ND	5.5	12/26/13 12:22	
Trichlorofluoromethane	ug/kg	ND	5.5	12/26/13 12:22	
Vinyl acetate	ug/kg	ND	54.6	12/26/13 12:22	
Vinyl chloride	ug/kg	ND	10.9	12/26/13 12:22	
Xylene (Total)	ug/kg	ND	10.9	12/26/13 12:22	
1,2-Dichloroethane-d4 (S)	%	114	70-132	12/26/13 12:22	
4-Bromofluorobenzene (S)	%	96	70-130	12/26/13 12:22	
Toluene-d8 (S)	%	99	70-130	12/26/13 12:22	

LABORATORY CONTROL SAMPLE: 1112932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	53.9	49.8	92	70-131	
1,1,1-Trichloroethane	ug/kg	53.9	51.1	95	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	53.9	52.3	97	70-130	
1,1,2-Trichloroethane	ug/kg	53.9	51.3	95	70-132	
1,1-Dichloroethane	ug/kg	53.9	53.0	98	70-143	
1,1-Dichloroethene	ug/kg	53.9	51.3	95	70-137	
1,1-Dichloropropene	ug/kg	53.9	52.1	97	70-135	
1,2,3-Trichlorobenzene	ug/kg	53.9	50.1	93	69-153	
1,2,3-Trichloropropane	ug/kg	53.9	51.2	95	70-130	
1,2,4-Trichlorobenzene	ug/kg	53.9	47.0	87	55-171	
1,2,4-Trimethylbenzene	ug/kg	53.9	51.5	96	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	53.9	49.2	91	68-141	
1,2-Dibromoethane (EDB)	ug/kg	53.9	53.7	100	70-130	
1,2-Dichlorobenzene	ug/kg	53.9	48.6	90	70-140	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

LABORATORY CONTROL SAMPLE: 1112932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	53.9	54.4	101	70-137	
1,2-Dichloropropane	ug/kg	53.9	50.5	94	70-133	
1,3,5-Trimethylbenzene	ug/kg	53.9	50.4	94	70-143	
1,3-Dichlorobenzene	ug/kg	53.9	46.7	87	70-144	
1,3-Dichloropropane	ug/kg	53.9	55.2	102	70-132	
1,4-Dichlorobenzene	ug/kg	53.9	47.9	89	70-142	
2,2-Dichloropropane	ug/kg	53.9	50.3	93	68-152	
2-Butanone (MEK)	ug/kg	108	106J	99	70-149	
2-Chlorotoluene	ug/kg	53.9	48.0	89	70-141	
2-Hexanone	ug/kg	108	98.6	92	70-149	
4-Chlorotoluene	ug/kg	53.9	50.6	94	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	108	95.0	88	70-153	
Acetone	ug/kg	108	105J	97	70-157	
Benzene	ug/kg	53.9	50.2	93	70-130	
Bromobenzene	ug/kg	53.9	52.0	96	70-141	
Bromochloromethane	ug/kg	53.9	45.7	85	70-149	
Bromodichloromethane	ug/kg	53.9	49.9	93	70-130	
Bromoform	ug/kg	53.9	47.0	87	70-131	
Bromomethane	ug/kg	53.9	53.4	99	64-136	
Carbon tetrachloride	ug/kg	53.9	46.1	85	70-154	
Chlorobenzene	ug/kg	53.9	50.2	93	70-135	
Chloroethane	ug/kg	53.9	52.5	97	68-151	
Chloroform	ug/kg	53.9	52.5	97	70-130	
Chloromethane	ug/kg	53.9	51.0	95	70-132	
cis-1,2-Dichloroethene	ug/kg	53.9	54.9	102	70-140	
cis-1,3-Dichloropropene	ug/kg	53.9	49.8	92	70-137	
Dibromochloromethane	ug/kg	53.9	51.0	95	70-130	
Dibromomethane	ug/kg	53.9	49.1	91	70-136	
Dichlorodifluoromethane	ug/kg	53.9	39.5	73	36-148	
Diisopropyl ether	ug/kg	53.9	51.7	96	70-139	
Ethylbenzene	ug/kg	53.9	49.5	92	70-137	
Hexachloro-1,3-butadiene	ug/kg	53.9	47.8	89	70-145	
Isopropylbenzene (Cumene)	ug/kg	53.9	51.2	95	70-141	
m&p-Xylene	ug/kg	108	100	93	70-140	
Methyl-tert-butyl ether	ug/kg	53.9	56.2	104	45-150	
Methylene Chloride	ug/kg	53.9	51.4	95	70-133	
n-Butylbenzene	ug/kg	53.9	49.4	92	65-155	
n-Propylbenzene	ug/kg	53.9	50.7	94	70-148	
Naphthalene	ug/kg	53.9	49.2	91	70-148	
o-Xylene	ug/kg	53.9	50.2	93	70-141	
p-Isopropyltoluene	ug/kg	53.9	47.7	88	70-148	
sec-Butylbenzene	ug/kg	53.9	50.5	94	70-145	
Styrene	ug/kg	53.9	51.7	96	70-138	
tert-Butylbenzene	ug/kg	53.9	49.5	92	70-143	
Tetrachloroethene	ug/kg	53.9	45.4	84	70-140	
Toluene	ug/kg	53.9	46.6	86	70-130	
trans-1,2-Dichloroethene	ug/kg	53.9	51.6	96	70-136	
trans-1,3-Dichloropropene	ug/kg	53.9	52.2	97	70-138	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

**LABORATORY CONTROL SAMPLE:** 1112932

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	53.9	44.1	82	70-132	
Trichlorofluoromethane	ug/kg	53.9	54.9	102	69-134	
Vinyl acetate	ug/kg	108	104	96	24-161	
Vinyl chloride	ug/kg	53.9	49.0	91	55-140	
Xylene (Total)	ug/kg	162	151	93	70-141	
1,2-Dichloroethane-d4 (S)	%			108	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			98	70-130	

**MATRIX SPIKE SAMPLE:** 1114087

Parameter	Units	92184133009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	ND	45.6	47.2	103	49-180	
Benzene	ug/kg	ND	45.6	51.6	113	50-166	
Chlorobenzene	ug/kg	ND	45.6	53.3	117	43-169	
Toluene	ug/kg	ND	45.6	47.2	103	52-163	
Trichloroethene	ug/kg	ND	45.6	48.0	105	49-167	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				98	70-130	

**SAMPLE DUPLICATE:** 1114088

Parameter	Units	92184404022 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		
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		

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

SAMPLE DUPLICATE: 1114088

Parameter	Units	92184404022	Dup Result	RPD	Qualifiers
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	27.6J		
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		
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)	%	120	118	3	
4-Bromofluorobenzene (S)	%	101	99	2	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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SAMPLE DUPLICATE: 1114088

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	92184404022 97	98	6	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch: OEXT/25288 Analysis Method: EPA 8015 Modified

QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV

Associated Lab Samples: 92184133010, 92184133011, 92184133012

METHOD BLANK: 1110449 Matrix: Solid

Associated Lab Samples: 92184133010, 92184133011, 92184133012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	12/24/13 10:34	
n-Pentacosane (S)	%	97	41-119	12/24/13 10:34	

LABORATORY CONTROL SAMPLE: 1110450

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	52.6	79	49-113	
n-Pentacosane (S)	%			85	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1110451 1110452

Parameter	Units	92184127012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Components	mg/kg	ND	83.9	83.9	61.5	65.6	69	74	10-146	7	
n-Pentacosane (S)	%						81	93	41-119		

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	OEXT/25287	Analysis Method:	EPA 8270
QC Batch Method:	EPA 3546	Analysis Description:	8270 Solid MSSV Microwave
Associated Lab Samples:	92184133001, 92184133002, 92184133003, 92184133004, 92184133005, 92184133006, 92184133007, 92184133008, 92184133009		

METHOD BLANK:	1110353	Matrix:	Solid
Associated Lab Samples:	92184133001, 92184133002, 92184133003, 92184133004, 92184133005, 92184133006, 92184133007, 92184133008, 92184133009		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,2-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,3-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1,4-Dichlorobenzene	ug/kg	ND	330	12/23/13 17:11	
1-Methylnaphthalene	ug/kg	ND	330	12/23/13 17:11	
2,4,5-Trichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4,6-Trichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dichlorophenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dimethylphenol	ug/kg	ND	330	12/23/13 17:11	
2,4-Dinitrophenol	ug/kg	ND	1650	12/23/13 17:11	
2,4-Dinitrotoluene	ug/kg	ND	330	12/23/13 17:11	
2,6-Dinitrotoluene	ug/kg	ND	330	12/23/13 17:11	
2-Chloronaphthalene	ug/kg	ND	330	12/23/13 17:11	
2-Chlorophenol	ug/kg	ND	330	12/23/13 17:11	
2-Methylnaphthalene	ug/kg	ND	330	12/23/13 17:11	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	12/23/13 17:11	
2-Nitroaniline	ug/kg	ND	1650	12/23/13 17:11	
2-Nitrophenol	ug/kg	ND	330	12/23/13 17:11	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	12/23/13 17:11	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	12/23/13 17:11	
3-Nitroaniline	ug/kg	ND	1650	12/23/13 17:11	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	12/23/13 17:11	
4-Bromophenylphenyl ether	ug/kg	ND	330	12/23/13 17:11	
4-Chloro-3-methylphenol	ug/kg	ND	660	12/23/13 17:11	
4-Chloroaniline	ug/kg	ND	1650	12/23/13 17:11	
4-Chlorophenylphenyl ether	ug/kg	ND	330	12/23/13 17:11	
4-Nitroaniline	ug/kg	ND	660	12/23/13 17:11	
4-Nitrophenol	ug/kg	ND	1650	12/23/13 17:11	
Acenaphthene	ug/kg	ND	330	12/23/13 17:11	
Acenaphthylene	ug/kg	ND	330	12/23/13 17:11	
Aniline	ug/kg	ND	330	12/23/13 17:11	
Anthracene	ug/kg	ND	330	12/23/13 17:11	
Benzo(a)anthracene	ug/kg	ND	330	12/23/13 17:11	
Benzo(a)pyrene	ug/kg	ND	330	12/23/13 17:11	
Benzo(b)fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Benzo(g,h,i)perylene	ug/kg	ND	330	12/23/13 17:11	
Benzo(k)fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Benzoic Acid	ug/kg	ND	1650	12/23/13 17:11	
Benzyl alcohol	ug/kg	ND	660	12/23/13 17:11	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	12/23/13 17:11	
bis(2-Chloroethyl) ether	ug/kg	ND	330	12/23/13 17:11	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

METHOD BLANK: 1110353

Matrix: Solid

Associated Lab Samples: 92184133001, 92184133002, 92184133003, 92184133004, 92184133005, 92184133006, 92184133007,  
92184133008, 92184133009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	12/23/13 17:11	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	12/23/13 17:11	
Butylbenzylphthalate	ug/kg	ND	330	12/23/13 17:11	
Chrysene	ug/kg	ND	330	12/23/13 17:11	
Di-n-butylphthalate	ug/kg	ND	330	12/23/13 17:11	
Di-n-octylphthalate	ug/kg	ND	330	12/23/13 17:11	
Dibenz(a,h)anthracene	ug/kg	ND	330	12/23/13 17:11	
Dibenzofuran	ug/kg	ND	330	12/23/13 17:11	
Diethylphthalate	ug/kg	ND	330	12/23/13 17:11	
Dimethylphthalate	ug/kg	ND	330	12/23/13 17:11	
Fluoranthene	ug/kg	ND	330	12/23/13 17:11	
Fluorene	ug/kg	ND	330	12/23/13 17:11	
Hexachloro-1,3-butadiene	ug/kg	ND	330	12/23/13 17:11	
Hexachlorobenzene	ug/kg	ND	330	12/23/13 17:11	
Hexachlorocyclopentadiene	ug/kg	ND	330	12/23/13 17:11	
Hexachloroethane	ug/kg	ND	330	12/23/13 17:11	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	12/23/13 17:11	
Isophorone	ug/kg	ND	330	12/23/13 17:11	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	12/23/13 17:11	
N-Nitrosodimethylamine	ug/kg	ND	330	12/23/13 17:11	
N-Nitrosodiphenylamine	ug/kg	ND	330	12/23/13 17:11	
Naphthalene	ug/kg	ND	330	12/23/13 17:11	
Nitrobenzene	ug/kg	ND	330	12/23/13 17:11	
Pentachlorophenol	ug/kg	ND	1650	12/23/13 17:11	
Phenanthrene	ug/kg	ND	330	12/23/13 17:11	
Phenol	ug/kg	ND	330	12/23/13 17:11	
Pyrene	ug/kg	ND	330	12/23/13 17:11	
2,4,6-Tribromophenol (S)	%	73	27-110	12/23/13 17:11	
2-Fluorobiphenyl (S)	%	76	30-110	12/23/13 17:11	
2-Fluorophenol (S)	%	80	13-110	12/23/13 17:11	
Nitrobenzene-d5 (S)	%	74	23-110	12/23/13 17:11	
Phenol-d6 (S)	%	81	22-110	12/23/13 17:11	
Terphenyl-d14 (S)	%	88	28-110	12/23/13 17:11	

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	823	49	39-101	
1,2-Dichlorobenzene	ug/kg	1670	825	49	36-110	
1,3-Dichlorobenzene	ug/kg	1670	815	49	35-110	
1,4-Dichlorobenzene	ug/kg	1670	842	51	35-110	
1-Methylnaphthalene	ug/kg	1670	898	54	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	1070	64	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	901	54	45-111	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dichlorophenol	ug/kg	1670	889	53	51-116	
2,4-Dimethylphenol	ug/kg	1670	970	58	42-103	
2,4-Dinitrophenol	ug/kg	8330	5240	63	28-103	
2,4-Dinitrotoluene	ug/kg	1670	1320	79	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1260	76	48-112	
2-Chloronaphthalene	ug/kg	1670	812	49	44-105	
2-Chlorophenol	ug/kg	1670	944	57	36-110	
2-Methylnaphthalene	ug/kg	1670	951	57	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	983	59	39-101	
2-Nitroaniline	ug/kg	3330	2490	75	44-111	
2-Nitrophenol	ug/kg	1670	939	56	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	964	58	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2280	68	10-150	
3-Nitroaniline	ug/kg	3330	2550	77	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2560	77	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	1200	72	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	2000	60	43-127	
4-Chloroaniline	ug/kg	3330	1910	57	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	1070	64	44-115	
4-Nitroaniline	ug/kg	3330	2580	77	37-111	
4-Nitrophenol	ug/kg	8330	6150	74	21-152	
Acenaphthene	ug/kg	1670	958	57	38-117	
Acenaphthylene	ug/kg	1670	990	59	46-107	
Aniline	ug/kg	1670	875	52	29-110	
Anthracene	ug/kg	1670	1280	77	50-110	
Benzo(a)anthracene	ug/kg	1670	1260	76	47-116	
Benzo(a)pyrene	ug/kg	1670	1410	85	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1250	75	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1250	75	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1300	78	45-117	
Benzoic Acid	ug/kg	8330	3560	43	16-110	
Benzyl alcohol	ug/kg	3330	1670	50	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	886	53	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	934	56	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	905	54	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1230	74	35-116	
Butylbenzylphthalate	ug/kg	1670	1220	73	38-110	
Chrysene	ug/kg	1670	1300	78	49-110	
Di-n-butylphthalate	ug/kg	1670	1210	73	43-109	
Di-n-octylphthalate	ug/kg	1670	1060	63	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1320	79	43-116	
Dibenzofuran	ug/kg	1670	912	55	45-106	
Diethylphthalate	ug/kg	1670	1120	67	41-114	
Dimethylphthalate	ug/kg	1670	1080	65	43-110	
Fluoranthene	ug/kg	1670	1300	78	50-114	
Fluorene	ug/kg	1670	1100	66	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	786	47	28-111	
Hexachlorobenzene	ug/kg	1670	1090	65	46-120	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

LABORATORY CONTROL SAMPLE: 1110354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachlorocyclopentadiene	ug/kg	1670	1100	66	18-119	
Hexachloroethane	ug/kg	1670	782	47	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1340	80	42-115	
Isophorone	ug/kg	1670	969	58	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	782	47	43-104	
N-Nitrosodimethylamine	ug/kg	1670	848	51	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	1040	63	48-113	
Naphthalene	ug/kg	1670	939	56	41-110	
Nitrobenzene	ug/kg	1670	977	59	38-110	
Pentachlorophenol	ug/kg	3330	2330	70	32-128	
Phenanthrene	ug/kg	1670	1240	74	50-110	
Phenol	ug/kg	1670	946	57	28-106	
Pyrene	ug/kg	1670	1350	81	45-114	
2,4,6-Tribromophenol (S)	%			78	27-110	
2-Fluorobiphenyl (S)	%			55	30-110	
2-Fluorophenol (S)	%			59	13-110	
Nitrobenzene-d5 (S)	%			55	23-110	
Phenol-d6 (S)	%			60	22-110	
Terphenyl-d14 (S)	%			80	28-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1110355      1110356

Parameter	Units	92184127007		1110356		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MS Result	MSD Spike Conc.					
1,2,4-Trichlorobenzene	ug/kg	ND	2490	2490	1320	1400	53	56	18-119	5
1,2-Dichlorobenzene	ug/kg	ND	2490	2490	1350	1440	54	58	50-110	7
1,3-Dichlorobenzene	ug/kg	ND	2490	2490	1330	1430	54	57	27-110	7
1,4-Dichlorobenzene	ug/kg	ND	2490	2490	1370	1440	55	58	28-110	5
1-Methylnaphthalene	ug/kg	ND	2490	2490	1460	1480	59	59	24-116	1
2,4,5-Trichlorophenol	ug/kg	ND	2490	2490	1710	1800	69	73	28-110	5
2,4,6-Trichlorophenol	ug/kg	ND	2490	2490	1450	1550	58	62	17-117	7
2,4-Dichlorophenol	ug/kg	ND	2490	2490	1470	1590	59	64	21-128	8
2,4-Dimethylphenol	ug/kg	ND	2490	2490	1020	1480	41	60	10-120	37 R1
2,4-Dinitrophenol	ug/kg	ND	12400	12400	8570	8830	69	71	10-107	3
2,4-Dinitrotoluene	ug/kg	ND	2490	2490	1920	2050	77	82	36-109	7
2,6-Dinitrotoluene	ug/kg	ND	2490	2490	1860	1950	75	79	32-110	5
2-Chloronaphthalene	ug/kg	ND	2490	2490	1300	1330	52	54	30-107	3
2-Chlorophenol	ug/kg	ND	2490	2490	1570	1680	63	67	14-106	7
2-Methylnaphthalene	ug/kg	ND	2490	2490	1530	1570	62	63	10-135	2
2-Methylphenol(o-Cresol)	ug/kg	ND	2490	2490	1320	1530	53	62	10-124	15
2-Nitroaniline	ug/kg	ND	4970	4970	3920	4230	79	85	26-116	8
2-Nitrophenol	ug/kg	ND	2490	2490	1580	1660	64	67	28-103	5
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	2490	2490	1290	1520	52	61	10-109	16
3,3'-Dichlorobenzidine	ug/kg	ND	4970	4970	1830J	3370	37	68	10-150	
3-Nitroaniline	ug/kg	ND	4970	4970	3850	4400	77	88	22-110	13
4,6-Dinitro-2-methylphenol	ug/kg	ND	4970	4970	3660	3540	74	71	13-121	3

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Parameter	Units	92184127007		MS Spike		MSD Spike		MS Result		MSD Result		% Rec	Limits	RPD	Qual	
				Conc.		Conc.		Result	MSD	% Rec	MSD	% Rec				
		Result	Conc.													
4-Bromophenylphenyl ether	ug/kg	ND	2490	2490	1610	1600	65	64	31-109	0						
4-Chloro-3-methylphenol	ug/kg	ND	4970	4970	3130	3550	63	71	13-128	13						
4-Chloroaniline	ug/kg	ND	4970	4970	3060	3210	62	64	18-102	5						
4-Chlorophenylphenyl ether	ug/kg	ND	2490	2490	1590	1670	64	67	29-112	5						
4-Nitroaniline	ug/kg	ND	4970	4970	3930	4950	79	100	16-111	23						
4-Nitrophenol	ug/kg	ND	12400	12400	9330	11300	75	91	14-135	19						
Acenaphthene	ug/kg	ND	2490	2490	1510	1560	61	63	26-114	3						
Acenaphthylene	ug/kg	ND	2490	2490	1570	1620	63	65	32-108	3						
Aniline	ug/kg	ND	2490	2490	365J	517	15	21	10-107							
Anthracene	ug/kg	ND	2490	2490	1730	1760	70	71	32-111	1						
Benzo(a)anthracene	ug/kg	ND	2490	2490	1650	1740	66	70	25-117	6						
Benzo(a)pyrene	ug/kg	ND	2490	2490	1790	1850	72	74	25-106	3						
Benzo(b)fluoranthene	ug/kg	ND	2490	2490	1530	1590	61	64	24-110	4						
Benzo(g,h,i)perylene	ug/kg	ND	2490	2490	1590	1650	64	66	19-112	4						
Benzo(k)fluoranthene	ug/kg	ND	2490	2490	1620	1650	65	66	24-114	2						
Benzoic Acid	ug/kg	ND	12400	12400	2380J	2170J	19	17	10-110							
Benzyl alcohol	ug/kg	ND	4970	4970	2930	3010	59	61	24-106	3						
bis(2-Chloroethoxy)methane	ug/kg	ND	2490	2490	1510	1550	61	62	13-119	3						
bis(2-Chloroethyl) ether	ug/kg	ND	2490	2490	1450	1450	58	58	10-134	0						
bis(2-Chloroisopropyl) ether	ug/kg	ND	2490	2490	1520	1540	61	62	10-113	1						
bis(2-Ethylhexyl)phthalate	ug/kg	ND	2490	2490	1660	1670	67	67	10-125	1						
Butylbenzylphthalate	ug/kg	ND	2490	2490	1670	1680	67	68	18-110	1						
Chrysene	ug/kg	ND	2490	2490	1680	1780	68	72	30-110	6						
Di-n-butylphthalate	ug/kg	ND	2490	2490	1630	1670	66	67	19-112	3						
Di-n-octylphthalate	ug/kg	ND	2490	2490	1550	1630	63	65	17-105	5						
Dibenz(a,h)anthracene	ug/kg	ND	2490	2490	1670	1750	67	70	23-111	4						
Dibenzofuran	ug/kg	ND	2490	2490	1410	1450	57	58	35-103	3						
Diethylphthalate	ug/kg	ND	2490	2490	1570	1630	63	66	27-113	4						
Dimethylphthalate	ug/kg	ND	2490	2490	1550	1590	62	64	26-111	3						
Fluoranthene	ug/kg	ND	2490	2490	1810	1970	73	79	33-109	8						
Fluorene	ug/kg	ND	2490	2490	1650	1730	66	70	32-113	5						
Hexachloro-1,3-butadiene	ug/kg	ND	2490	2490	1290	1310	52	53	16-116	2						
Hexachlorobenzene	ug/kg	ND	2490	2490	1420	1400	57	57	27-120	1						
Hexachlorocyclopentadiene	ug/kg	ND	2490	2490	1750	1560	70	63	10-108	11						
Hexachloroethane	ug/kg	ND	2490	2490	1330	1370	53	55	10-117	3						
Indeno(1,2,3-cd)pyrene	ug/kg	ND	2490	2490	1750	1770	70	71	10-122	1						
Isophorone	ug/kg	ND	2490	2490	1720	1720	69	69	28-114	0						
N-Nitroso-di-n-propylamine	ug/kg	ND	2490	2490	1330	1280	54	51	27-113	4						
N-Nitrosodimethylamine	ug/kg	ND	2490	2490	1320	1470	53	59	10-109	11						
N-Nitrosodiphenylamine	ug/kg	ND	2490	2490	1310	1380	53	55	10-128	5						
Naphthalene	ug/kg	ND	2490	2490	1530	1570	62	63	25-110	2						
Nitrobenzene	ug/kg	ND	2490	2490	1650	1660	66	67	18-114	0						
Pentachlorophenol	ug/kg	ND	4970	4970	3440	2860	69	58	10-122	18						
Phenanthrene	ug/kg	ND	2490	2490	1690	1730	68	70	30-114	3						
Phenol	ug/kg	ND	2490	2490	1340	1530	54	61	11-102	13						
Pyrene	ug/kg	ND	2490	2490	1750	1690	70	68	25-116	3						
2,4,6-Tribromophenol (S)	%							71	73	27-110						

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, Inc.**  
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(336)623-8921

**Pace Analytical Services, Inc.**  
2225 Riverside Dr.  
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(828)254-7176

**Pace Analytical Services, Inc.**  
9800 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Parameter	Units	92184127007		MS Spike Conc.		MSD Spike Conc.		MS Result		MSD % Rec		% Rec Limits		RPD	Qual		
2-Fluorobiphenyl (S)	%									58	58	30-110					
2-Fluorophenol (S)	%									61	69	13-110					
Nitrobenzene-d5 (S)	%									63	63	23-110					
Phenol-d6 (S)	%									60	68	22-110					
Terphenyl-d14 (S)	%									68	64	28-110					

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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QC Batch: PMST/6107 Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 92184133001, 92184133002, 92184133003, 92184133004, 92184133005, 92184133006, 92184133007,  
92184133008

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SAMPLE DUPLICATE: 1110258

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	12.7	12.9	1	

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SAMPLE DUPLICATE: 1110259

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.4	18.4	15	

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## QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

QC Batch:	PMST/6110	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples: 92184133009, 92184133010, 92184133011, 92184133012			

SAMPLE DUPLICATE: 1110281

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	25.0	20.8	18	

SAMPLE DUPLICATE: 1110282

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	9.4	9.0	4	

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## QUALIFIERS

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

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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-C Pace Analytical Services - Charlotte

### ANALYTE QUALIFIERS

- 1g The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
- 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.
- IO The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
- R1 RPD value was outside control limits.
- S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92184133010	S-4-2	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184133011	S-3-5	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184133012	S-3-6	EPA 3546	OEXT/25288	EPA 8015 Modified	GCSV/16318
92184133010	S-4-2	EPA 5035A/5030B	GCV/7664	EPA 8015 Modified	GCV/7667
92184133011	S-3-5	EPA 5035A/5030B	GCV/7664	EPA 8015 Modified	GCV/7667
92184133012	S-3-6	EPA 5035A/5030B	GCV/7664	EPA 8015 Modified	GCV/7667
92184133001	S-4-4	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133002	S-4-3	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133003	S-5-1	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133004	S-5-2	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133005	S-5-3	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133006	S-3-1	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133007	S-3-2	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133008	S-3-3	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133009	S-3-4	EPA 3546	OEXT/25287	EPA 8270	MSSV/8597
92184133001	S-4-4	EPA 8260	MSV/25355		
92184133002	S-4-3	EPA 8260	MSV/25356		
92184133003	S-5-1	EPA 8260	MSV/25356		
92184133004	S-5-2	EPA 8260	MSV/25369		
92184133005	S-5-3	EPA 8260	MSV/25369		
92184133006	S-3-1	EPA 8260	MSV/25369		
92184133007	S-3-2	EPA 8260	MSV/25369		
92184133008	S-3-3	EPA 8260	MSV/25369		
92184133009	S-3-4	EPA 8260	MSV/25369		
92184133001	S-4-4	ASTM D2974-87	PMST/6107		
92184133002	S-4-3	ASTM D2974-87	PMST/6107		
92184133003	S-5-1	ASTM D2974-87	PMST/6107		
92184133004	S-5-2	ASTM D2974-87	PMST/6107		
92184133005	S-5-3	ASTM D2974-87	PMST/6107		
92184133006	S-3-1	ASTM D2974-87	PMST/6107		
92184133007	S-3-2	ASTM D2974-87	PMST/6107		
92184133008	S-3-3	ASTM D2974-87	PMST/6107		
92184133009	S-3-4	ASTM D2974-87	PMST/6110		
92184133010	S-4-2	ASTM D2974-87	PMST/6110		
92184133011	S-3-5	ASTM D2974-87	PMST/6110		
92184133012	S-3-6	ASTM D2974-87	PMST/6110		

## REPORT OF LABORATORY ANALYSIS

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Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: June 4, 2013 Page 1 of 2
Document No.: F-ASV-CS-03-rev.11	Issuing Authority: Pace Asheville Quality Office

Client Name: Gel Eng of NC

Where Received:  Huntersville  Asheville  Eden  Raleigh

Courier (Circle): 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  Non  Other \_\_\_\_\_

Circle Thermometer Used: IR Gun#3 -130265963 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun  
IR Gun #2- 80344039

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 5.4 C Biological Tissue is Frozen: Yes  No  N/A

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 12/14/13

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 checked="" 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.
-Includes date/time/ID/Analysis Matrix:	<u>SL</u>	
All containers needing preservation have been checked:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
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 type="checkbox"/> Yes <input 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: Jackson Co.

SCUR Review:	<u>AMB</u>	Date: <u>12/19/13</u>	Print label here
SRF Review:	<u>AMB</u>	Date: <u>12/19/13</u>	OR

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)

Handy file project number  
(if no label available)

92184133



## CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page:	of	
Company: GEL ENG of N.C.		Report To: A. EYER		Attention: NC DOT		1727154		
Address: PO Box 14262		Copy To:		Company Name:		REGULATORY AGENCY		
PTD N.C. 27212				Address:		NPDES	GROUND WATER	DRINKING WATER
Email To: ADE@gel.com		Purchase Order No.: WBS No. 33507, I.1		Pace Quote Reference:		UST	RCRA	<input checked="" type="checkbox"/> OTHER
Phone: Fax		Project Name: B-4159		Pace Project Manager:		Site Location:		
Requested Due Date/TAT: Normal TA		Project Number: NCDT01413		Pace Profile #: 5996-2	STATE: NC			

Section D		Matrix Codes				Requested Analysis Filtered (Y/N)					
ITEM #	SAMPLE ID (A-Z, 0-9 / . - ) Sample IDs MUST BE UNIQUE	Drinking Water Water	W-W	Matrix Code	(G= Gas, A= Air, C= Condensate, P= Particulate)	SAMPLE TYPE (G=G WB, Q=QC, P=)					
		Oil	W-C								
		Wipe	A-W								
		Air	T-A								
		Tissue	O-T								
		Other									
1	S-4-4	SL	G	12/19/13	0850	DATE	TIME	SAMPLE TEMP AT CONC 30.029	# OF CONTAINERS 15	Analysis Test	✓
3	S-4-2	SLG			0940					GRO	X
4	S-5-1	SLG			1005					DIG	X
5	S-5-2	SLG			1030					VCL S	X
6	S-5-3	SLG			1055					VCL S	X
7	S-3-1	SLG			1110						
8	S-3-2	SLG			1120						
9	S-3-3	SLG			1130						
10	S-3-4	SLG			1155						
11	S-3-5	SLG			1215						
12	S-4-6	SLG			1230						
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS	
StackDada FEL		12/19/13		1400	-	EPA/981		12/19/13	1400	On	
9284B3											
Pace Project No./Lab I.D.											
Residual Chlorine											

SAMPLER NAME AND SIGNATURE						
PRINT Name of SAMPLER:	<i>Steve Ruckman</i>		DATE Signed	12/13/13	Sampled At	1000 E. 14th St.
SIGNATURE OF SAMPLER:	<i>Steve Ruckman</i>		HANODIVN		Permit No.	100-0000000000000000
					Valid UNTIL	12/31/13
					Signatory Certified	<input checked="" type="checkbox"/> (Y) <input type="checkbox"/> (N)
					Samples intact	<input checked="" type="checkbox"/> (Y) <input type="checkbox"/> (N)