



Engineering of NC INC

an affiliate of **The GEL Group** INC

## **PRELIMINARY SITE ASSESSMENT REPORT**

**26 Aztec Drive  
Kokopellivillage, LLC Property, Parcel 003  
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 9, 2014

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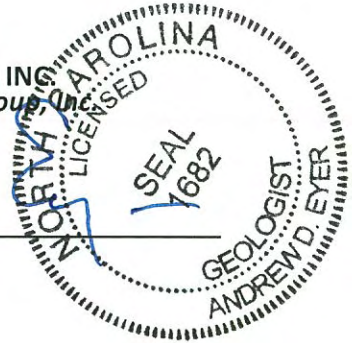
## Signature Page

This document, entitled *Preliminary Site Assessment Report*, has been prepared for the Kokopellivillage, LLC Property (Parcel 003), located at 26 Aztec Drive 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.

GEL ENGINEERING OF NC, INC.  
*an Affiliate of The GEL Group, Inc.*



Andrew D. Eyer, L.G.  
Senior Project Manager



05-09-14

Date

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**26 Aztec Drive  
Kokopellivillage, LLC, Parcel 003  
Cullowhee, North Carolina  
State Project B-4159, WBS Element #33507.1.1  
Jackson County**

## Executive Summary

The subject site is the Kokopellivillage, LLC property (Parcel 003) located at 26 Aztec Drive 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 Aztec Drive, Old Cullowhee Road, and Monteith Gap Road fronting Parcel 003, as a result of previous and/or current operations at the subject site.

The property comprising Parcel 003 includes a 2-story residence, and a 3-story building that houses a laundromat, apartments, and a music store. Parcel 005, a 1-story building currently being used for storage, is also wholly contained within Parcel 003. None of the onsite facilities have reportedly ever been used for any purposes other than residential and commercial activities. Furthermore, none of the onsite facilities had operated as a service station or dry cleaners, and the property reportedly has never stored or dispensed petroleum products or hazardous materials.

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 fronting Parcel 003 that included a geophysical investigation, and the collection and analysis of

## **Executive Summary (continued)**

soil samples. No subsurface anomalies indicative of suspected or known USTs were identified within the investigation area.

Soil samples were collected for analysis from six borings constructed within the investigation area and analyzed for petroleum hydrocarbon constituents. Four of the samples were also analyzed for VOCs, and SVOCs. Neither GRO, VOCs, nor SVOCs were detected in any of the collected soil samples analyzed for the respective parameters. DRO was detected at a level exceeding the NCDENR DRO Action Level in the soil sample collected from boring S3-3.

Based on the detection of an elevated DRO concentration in the soil sample, it is estimated that there is an approximate total volume of 222 cubic yards of impacted soil (DRO >10 mg/kg) in the vicinity of boring S3-3.

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 S3-3 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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Cullowhee, North Carolina  
State Project B-4159, WBS Element #33507.1.1  
Jackson County**

## **1.0 Introduction**

This document presents the details of a geophysical survey and preliminary site assessment performed at the Kokopellivillage, LLC property (Parcel 003) located at 26 Aztec drive 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 Aztec Drive, Old Cullowhee Road, and Monteith Gap Road fronting Parcel 003.

Parcel 003 extends along the intersection of Old Cullowhee Road, Aztec Drive, and Monteith Gap Road, as shown in Photographs 1 through 5 in Appendix I. The parcel contains a residence, 3-story building, and Parcel 005 (a 1-story building). 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, Monteith Gap Road, and Aztec Drive in Cullowhee, North Carolina. NCDOT wanted to assess the area fronting Parcel 003 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. Figures 2 through 4 show the general site layout for Parcel 003.

The property comprising Parcel 003 includes a 2-story residence, and a 3-story building that houses a laundromat, apartments, and a music store. Parcel 005, a 1-story building currently being used for storage, is also wholly contained within Parcel 003, as shown in Figures 2 through 4. Neighbors of Parcel 003, residents of Cullowhee, and the manager of the onsite laundromat all indicated that none of the onsite facilities have ever been used for any purposes other than residential and commercial activities. They also indicated that none of the onsite facilities had ever operated as a service station or dry cleaners, and the property reportedly never stored or dispensed petroleum products or hazardous materials.

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 003 is located in a developed area of Cullowhee in Jackson County, North Carolina. Surrounding land uses include residential and commercial activities. The campus of Western Carolina University abuts Parcel 003 to the south.

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 "Cowee-Evard-Urban Land Complex" (CrD), which is characterized as mountain slope or back slope physiography consisting of sandy and clayey loam derived from residuum overlying weathered bedrock. The soils encountered at the site during the preliminary

site assessment for Parcel 003 consisted predominantly of brown/orange, sandy, clayey 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 2120 feet above mean sea level. The topography in Figure 1 indicates that groundwater in the vicinity of Parcel 003 most likely flows in a northeasterly direction towards the Tuckasegee River. Storm water from the site, as well as from adjacent sites surrounding Parcel 003, flows in a northeasterly 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 at Parcel 003, 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 19, 2013, within the accessible portions of the existing and proposed easements and ROWs at Parcel 003, 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 003 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 result of metal manhole covers and parked cars 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 six subsurface soil borings at Parcel 003, S3-1 through S3-6, on December 19, 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 at Parcel 003, as shown on Figure 4 and in Photographs 1 through 5 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 003**

Soil Boring	Depth Interval of Soil Sample Collected for Analysis (feet bgs)	PID Reading (ppm)	Northing	Easting
S3-1	7-8	0.0	595825.645	753983.138
S3-2	7-8	0.0	595790.821	754001.159
S3-3	7-8	0.0	595760.368	754025.581
S3-4	7-8	0.1	595722.140	754063.541
S3-5	7-8	0.0	595650.128	754137.570
S5-6	7-8	0.0	595590.869	754177.071

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). Soil samples were collected at depths of 3-4 feet and 7-8 feet from each borehole. 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 three borings except boring S3-4. A concentration of 0.1 parts per million (ppm) was measured in the soil sample collected from the 7 to 8-foot depth

interval. Therefore, to assess the subsurface soil quality, soil samples collected from the 7 to 8-foot depth interval in borings S3-1 and S3-6 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. The backfill for borings S3-1, S3-2, and S3-3 was topped off with asphalt patch material. 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. Two of the samples, S3-5 and S3-6, were also analyzed for hydrocarbon constituents by Pace Analytical Services, Inc. (Pace) in Huntersville, North Carolina. To address previous auto repair and/or dry cleaning operations that may have potentially been conducted at the site, splits of the soil samples from borings S3-1 through S3-4 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 S3-3 at a level of 18.3 milligrams per kilogram (mg/kg), which exceeds the NCDENR action level for DRO (10 mg/kg). No VOCs or SVOCs were detected by Pace in any of the soil samples collected from borings S3-1 through S3-4.

It is estimated that there is an approximate total volume of 222 cubic of impacted soil (DRO >10 mg/kg) in the vicinity of boring S3-3, based on the following assumed area within the investigation area (as shown on Figure 4) and assumed depth of impacted soil:

Boring S3-3 Area

- 750 square feet x 8 feet = 222 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 003 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.

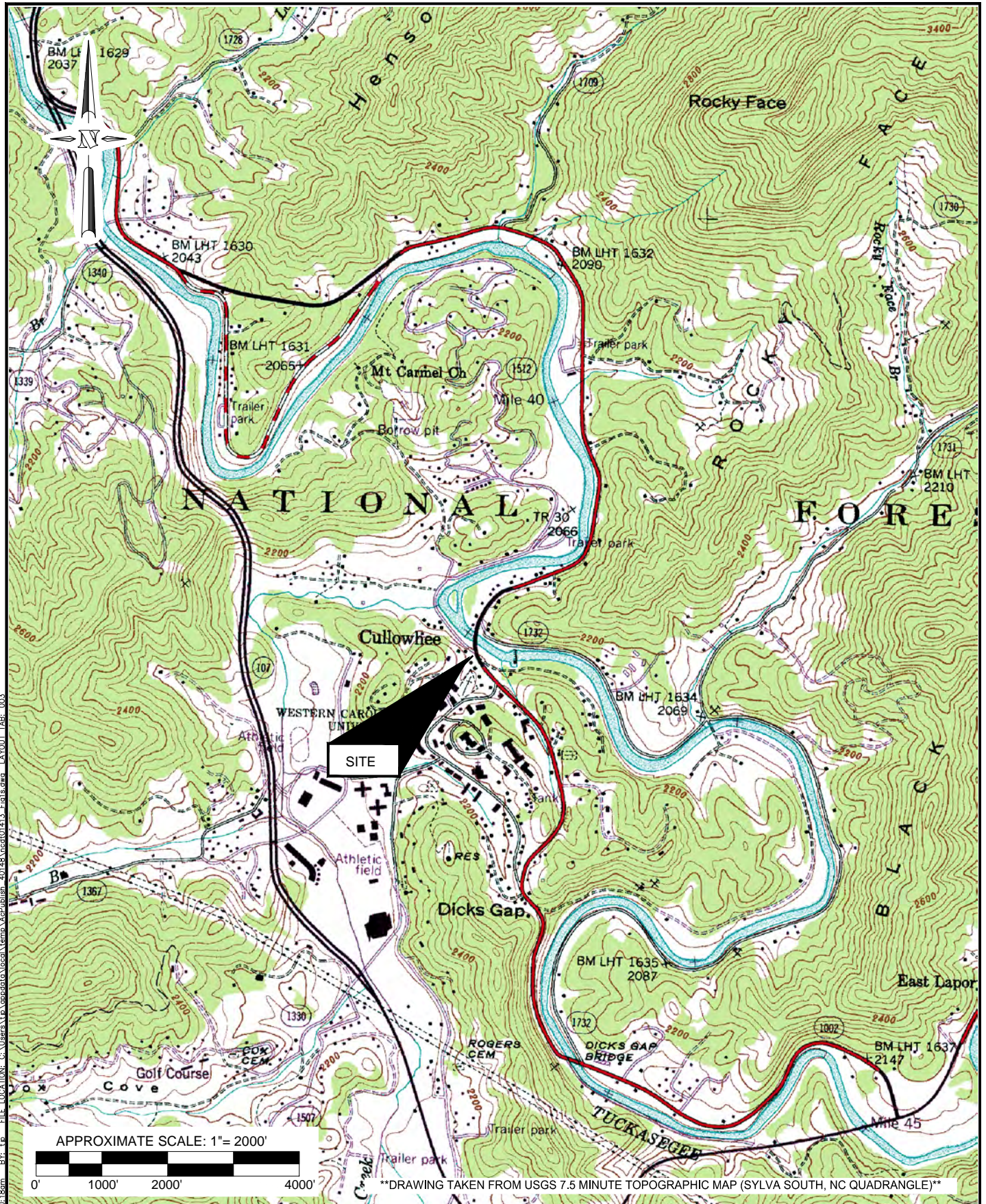
Soil samples were collected for analysis from six borings constructed within the investigation area and analyzed for petroleum hydrocarbon constituents. Four of the samples were also analyzed for VOCs, and SVOCs. Neither GRO, VOCs, nor SVOCs were detected in any of the collected soil samples analyzed for the respective parameters. DRO was detected at a level exceeding the NCDENR DRO Action Level in the soil sample collected from boring S3-3.

Based on the detection of an elevated DRO concentration in the soil sample, it is estimated that there is an approximate total volume of 222 cubic yards of impacted soil (DRO >10 mg/kg) in the vicinity of boring S3-3.

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 S3-3 as part of planned construction activities by NCDOT be handled appropriately and further characterized for petroleum constituents, as needed.

## FIGURES





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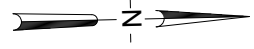
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PROJECT: ncdt01413  
 PRELIMINARY SITE ASSESSMENT  
 PARCEL 003  
 CULLOWHEE, JACKSON COUNTY,  
 NORTH CAROLINA  
 TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1  
 DATE: February 3, 2014

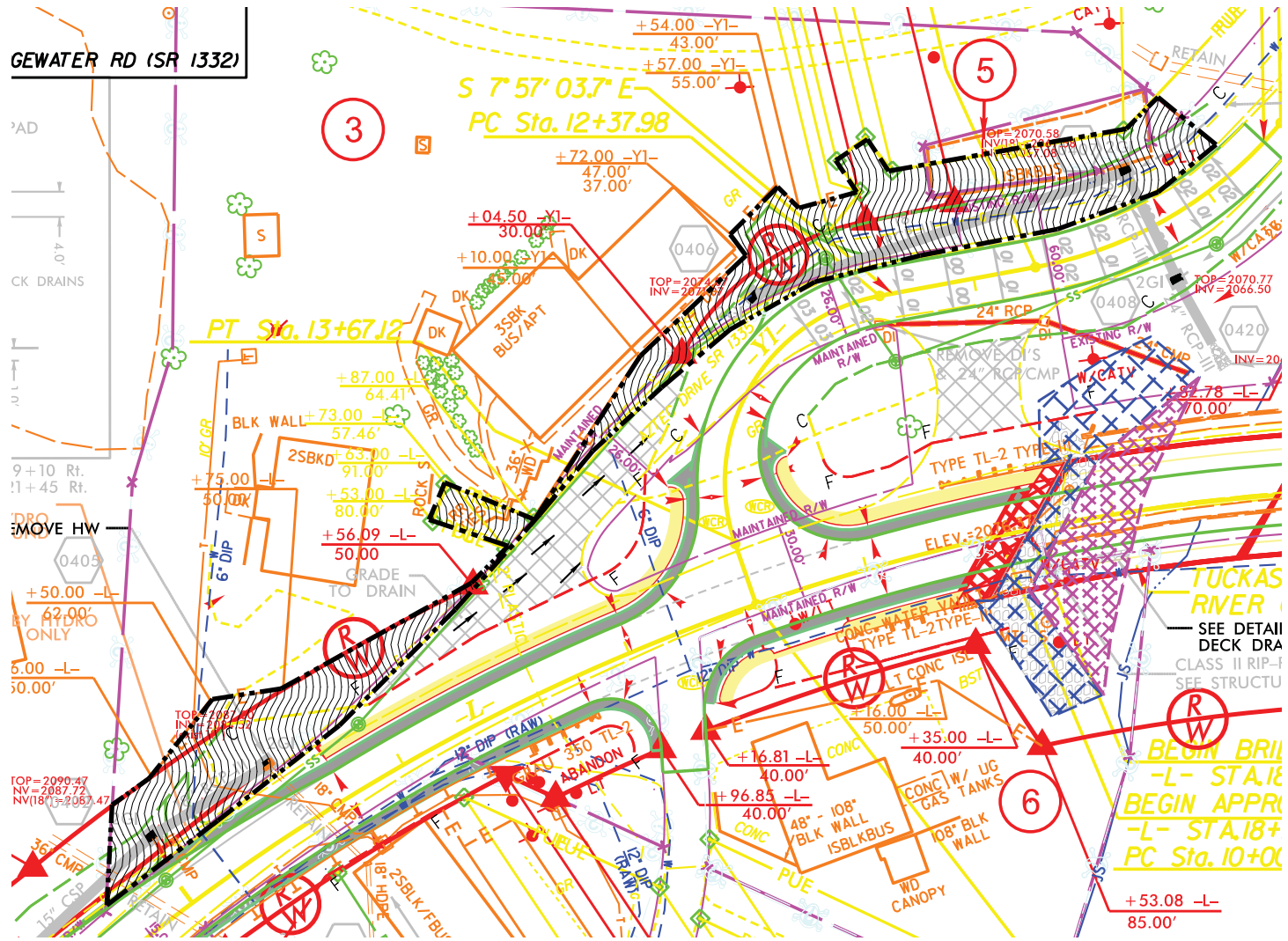
SITE LOCATION  
 MAP  
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FIGURE  
 1

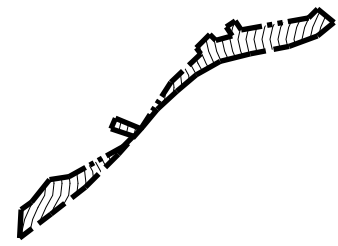




GEWATER RD (SR 1332)



**PARCEL 003  
INVESTIGATION AREA**



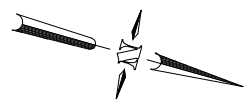
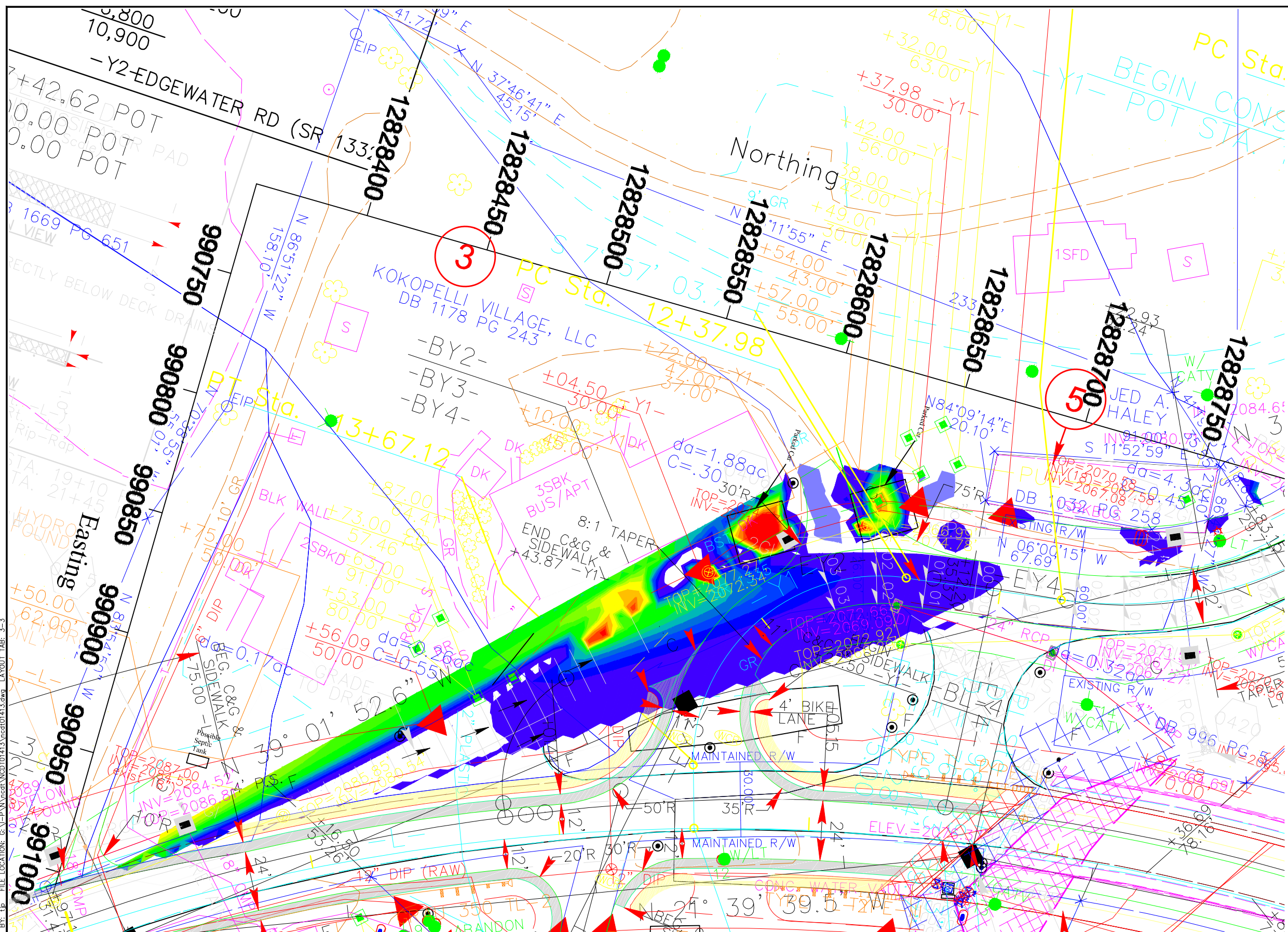
SEE FIGURE 5 FOR  
SUPPLEMENTAL LEGEND  
FOR USE WITH FIGURE 2

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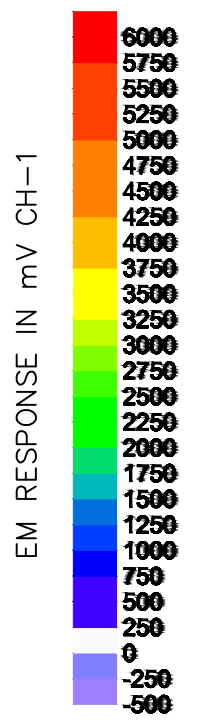


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PROJECT: ncdt01413	PRELIMINARY SITE ASSESSMENTS JACKSON COUNTY, NORTH CAROLINA TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1	DESIGNATED INVESTIGATION AREA FOR PARCEL 003	FIGURE 2
DATE: April 2, 2014	DRAWN BY: ADE		

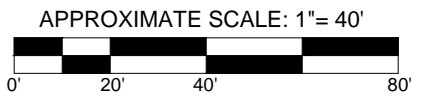


SEE FIGURE 5 FOR SUPPLEMENTAL LEGEND FOR USE WITH FIGURE 3



**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.



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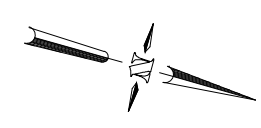
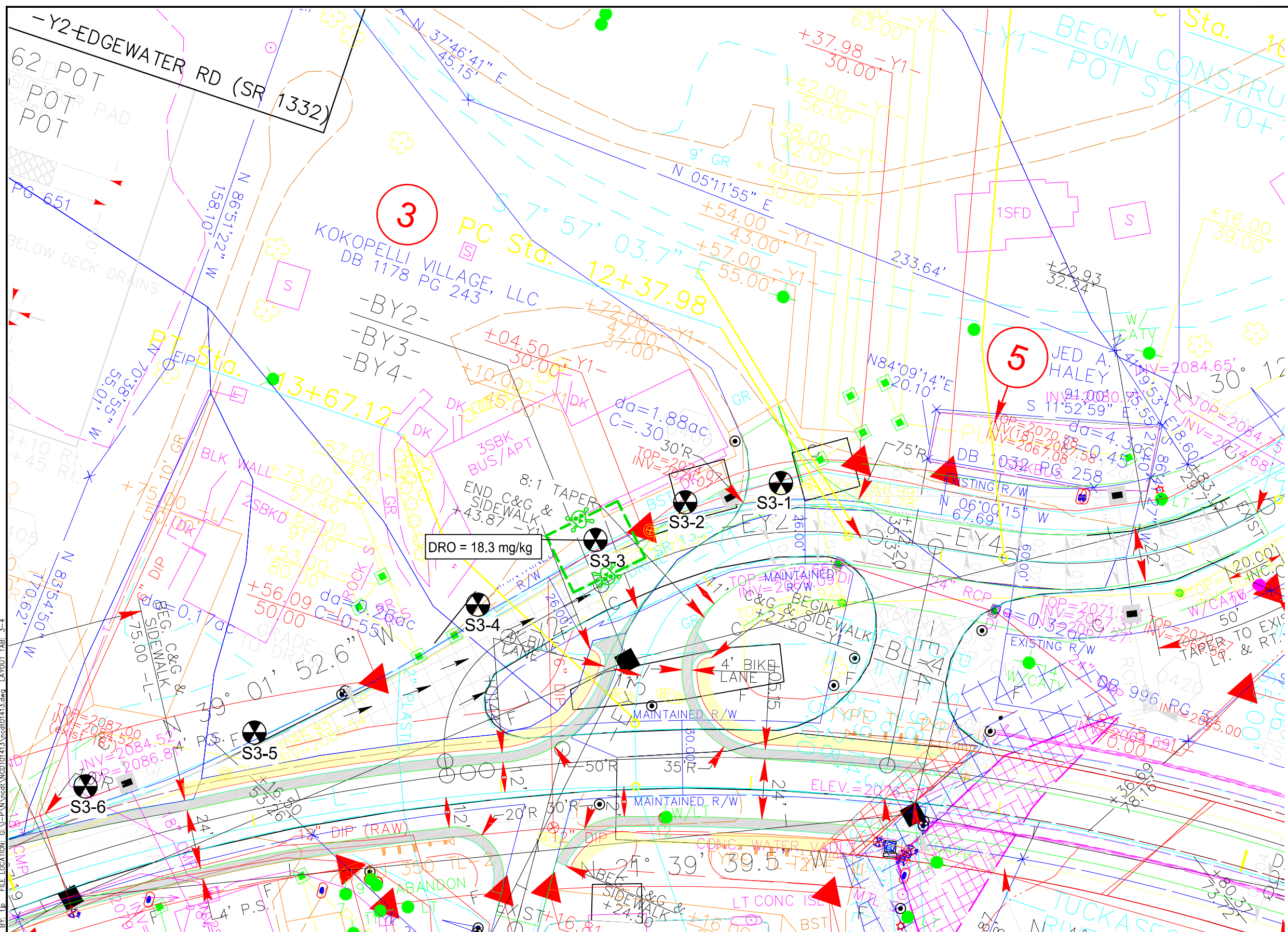
DATE: April 24, 2014

SITE MAP SHOWING RESULTS OF  
GEOPHYSICAL INVESTIGATION

DRAWN BY: TJP APPRV. BY: ADE

FIGURE  
3

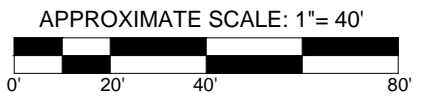




SEE FIGURE 5 FOR SUPPLEMENTAL LEGEND FOR USE WITH FIGURE 4

**LEGEND**

- S3-1 SOIL BORING LOCATION
- KNOWN SOIL CONTAMINATION
- DRO = 18.3 mg/kg DRO CONCENTRATION DETECTED BY QROS



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problem solved

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

DATE: April 24, 2014

SITE MAP SHOWING LOCATIONS OF  
 SOIL BORINGS

DRAWN BY: TJP APPRV. BY: ADE

FIGURE  
 4

*Note: Not to Scale*  
 \*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. **B-4159**  
 SHEET NO. **5**

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 Right of Way Line with Concrete CA 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 Drainage / Utility 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	-----

**VEGETATION:**

Single Tree	⊕
Single Shrub	⊕
Hedge	-----
Woods Line	-----

Orchard	⊕
Vineyard	⊕

**EXISTING STRUCTURES:**

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
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	AATUR
End of Information	E.O.I.

NOTE: LEGEND WAS PROVIDED BY NCDOT

GEL ENGINEERING of NC, Inc.  
 an Affiliate of THE GEL GROUP, Inc.



Post Office Box 14262  
 Research Triangle Park, NC 27709  
 (919) 544-1100

PROJECT: ncdt01413
PRELIMINARY SITE ASSESSMENT PARCEL 003 CULLOWHEE, JACKSON COUNTY, NORTH CAROLINA TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1
DATE: April 2, 2014

SUPPLEMENTAL LEGEND FOR USE WITH FIGURES 2, 3, AND 4
DRAWN BY: ADE

FIGURE 5
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## TABLES

**TABLE 1**

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

**Preliminary Site Assessment  
Parcel 003, 26 Aztec Drive  
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					Pace Analytical Results		
	QROS	Pace	QROS	Pace	BTEX (C6-C9)	TPH (C5-C35)	Total Aromatics (C10-C35)	16 EPA PAHs	Benzo(a)pyrene	VOCs	SVOCs	
S-3-1	<0.5	NA	<0.5	NA	<0.5	<0.5	<0.45	<0.05	< 0.023	ND	ND	
S-3-2	6.5	NA	<0.6	NA	<0.6	6.5	2.4	<0.06	< 0.028	ND	ND	
S-3-3	18.3	NA	<0.6	NA	<0.6	18.3	13.38	0.31	< 0.028	ND	ND	
S-3-4	<0.5	NA	<0.5	NA	<0.5	<0.5	<0.54	<0.05	< 0.027	ND	ND	
S-3-5	<0.6	<6.0	<0.6	<5.5	<0.6	<0.6	<0.6	0.06	< 0.03	NA	NA	
S-3-6	<0.5	<6.2	<0.5	<5.3	<0.5	<0.5	<0.52	<0.05	< 0.026	NA	NA	
<b>NCDENR Action Level</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>								
<b>NCDENR MSCC</b>										<b>0.088</b>		

**Notes:**

- 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) ND = No VOCs/SVOCs detected above the laboratory Practical Quantitation Limit.
- 5) Reported values exceeding corresponding NCDENR Action Levels or MSCCs are highlighted in yellow.

## **APPENDICES**

**APPENDIX I**  
**PHOTOGRAPHS**





Photograph 1: View looking southeast at soil boring locations S3-1 and S3-2 at Parcel 003. Aztec Drive is shown on left.





Photograph 2: View looking southeast at soil boring locations S3-2 and S3-3 at Parcel 003. Aztec Drive is shown on left.





Photograph 3: View looking northwest at soil boring locations S3-3 and S3-4 at Parcel 003. Aztec Drive is shown on right, and Parcel 005 is shown in the background.





Photograph 4: View looking southwest from Old Cullowhee Road at soil boring location S3-5 at Parcel 003.



Photograph 5: View looking north at soil boring location S3-6 at Parcel 003. Old Cullowhee Road is shown on right, and bridge over Tuckasegee River is shown in the background.

**APPENDIX II**

**SOIL BORING LITHOLOGIC LOGS**

## SOIL BORING LOG

Boring/Well No.: **S3-1**  
 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	Orange Brown weathered rock; rust colored Saprolite, weathered Gneiss	
2	4.0' – 8.0'	--	0.0	Orange Brown weathered rock; rust colored Saprolite, weathered Gneiss	
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.: **S3-2**  
 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 Silty Clay, Moist, Micaceous	CL
2	4.0' – 8.0'	--	0.0	Red Brown, Dark Gray Sandy Silt	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'

## SOIL BORING LOG

Boring/Well No.: **S3-3**  
 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	Orange Brown Sandy Silt with Gravel, Moist, rounded quartz	ML
2	4.0' – 8.0'	--	0.0	Orange Brown 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.: **S3-4**  
 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	Orange Brown Sandy Silt; Saprolite, Highly Weathered	ML
2	4.0' – 8.0'	--	0.1	Orange Brown 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.: **S3-5**  
 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	Orange Brown Sandy Silt with Gravel; Moist; Micaceous	ML
2	4.0' – 8.0'	--	0.0	Orange Brown Saprolite; Highly Weathered	
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.: **S3-6**  
 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	Orange Brown Sandy Silt with Gravel; Moist; Micaceous	ML
2	4.0' – 8.0'	--	0.0	Orange Brown Sandy Silt with Gravel; Moist; Micaceous	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** Thursday, December 19, 2013  
**Samples extracted** Thursday, December 19, 2013  
**Samples analysed** Monday, December 23, 2013

**Contact:** Andrew Eyer

**Operator** CSB

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

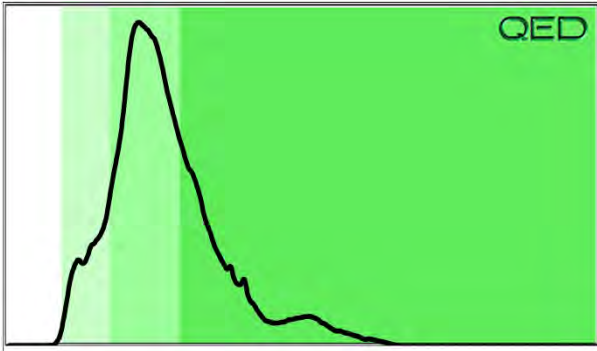
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	S-4-4	10.6	<0.5	<0.5	5.2	5.2	3.47	0.28	< 0.026	79	19.6	1.4	V.Deg.PHC 92%
s	S-4-3	48.7	<2.4	<2.4	62.8	62.8	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
Initial Calibrator QC check			OK		Low Range Calibrator Final check					OK		0.077	
					High Range Calibrator Final check					OK		1.497	

Results generated by a QED HC-1 analyser  
 Concentration values in mg/kg for soil samples and mg/L for water samples.  
 Soil values are not corrected for moisture or stone content

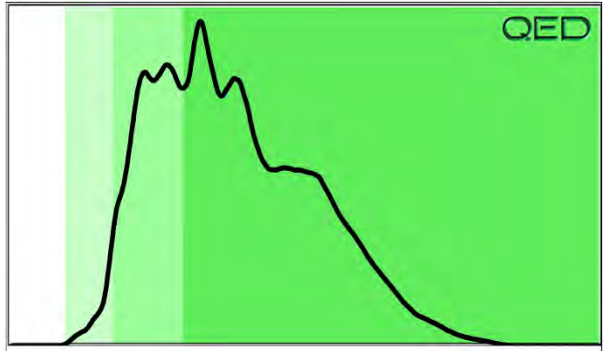
Fingerprints provide a tentative hydrocarbon identification based on operator selected library matches  
 Fingerprints match abbreviations  
 (SBS)= site specific background subtracted (LBS)= Library background subtracted

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

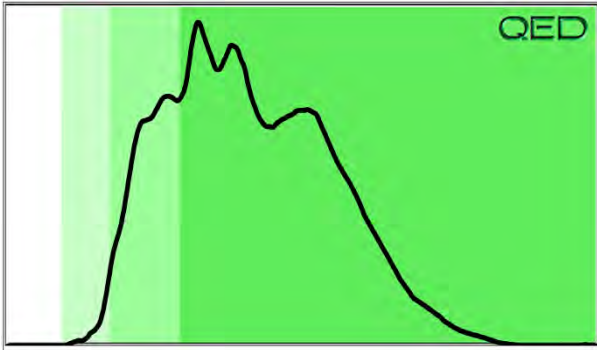
V.Deg.PHC 92% S-4-4



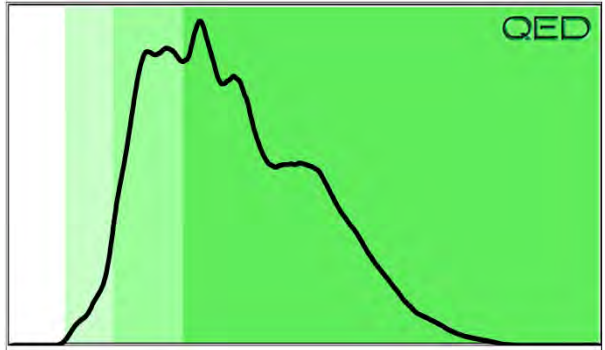
V.Deg.PHC 73.4% S-4-3



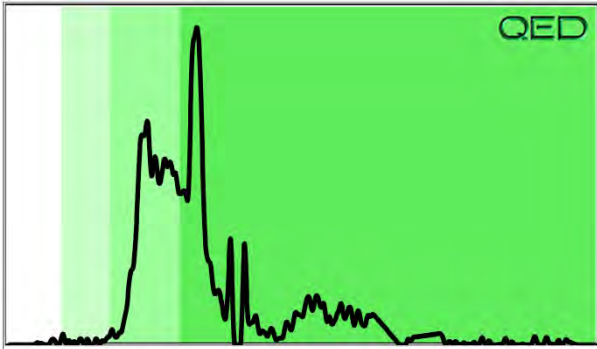
V.Deg.PHC 56.2% S-4-2



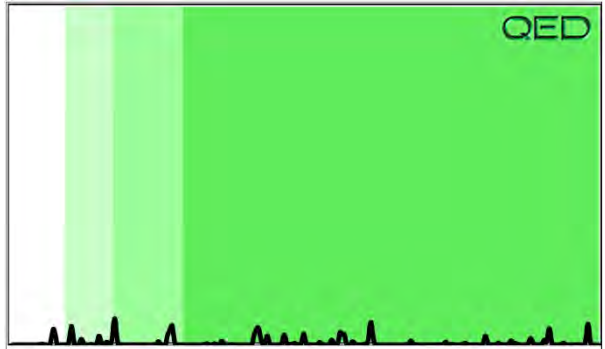
V.Deg.PHC 77.2% S-5-1



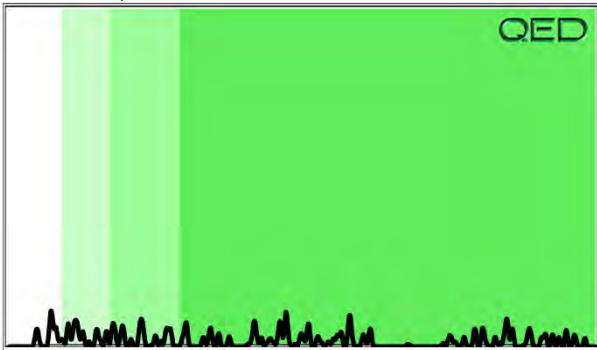
Deg.Fuel 695.8% S-5-2



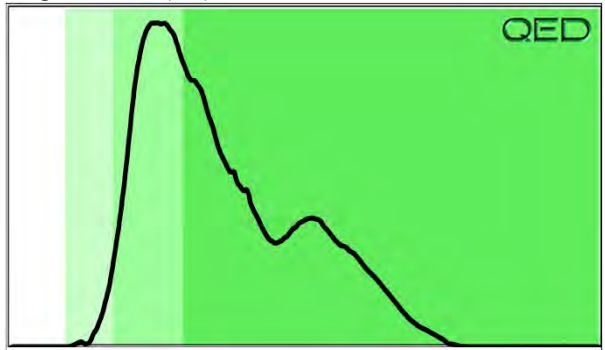
Match not possible S-5-3



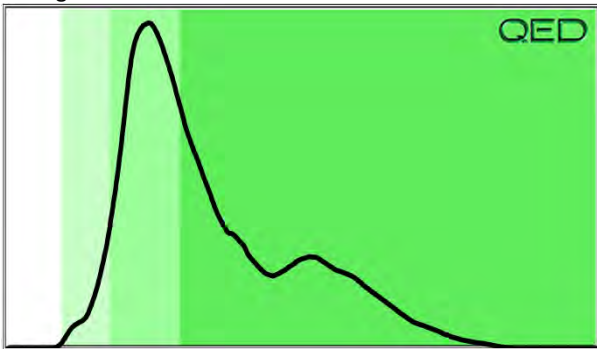
Match not possible S-3-1



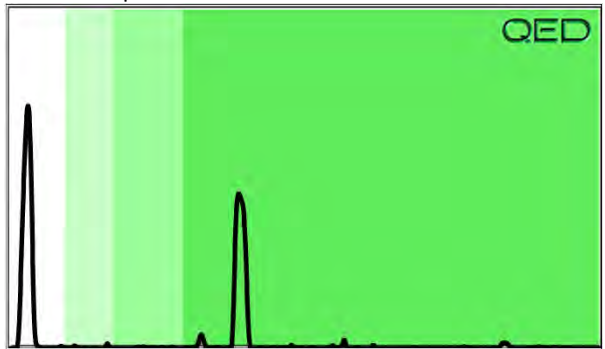
Degraded Fuel (est) 87% S-3-2



V.Deg.PHC 99.2% S-3-3



Match not possible S-3-4





### Hydrocarbon Analysis Results

**Client:** GEL

**Address:**

**Samples taken** Thursday, December 19, 2013  
**Samples extracted** Thursday, December 19, 2013  
**Samples analysed** Monday, December 23, 2013

**Contact:** Andrew Eyer

**Operator** CSB

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

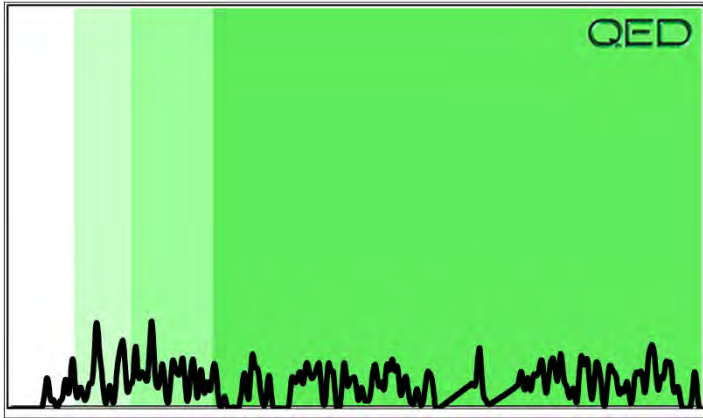
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match	
										% light	% mid	% heavy		
s	S-3-5	12.0	<0.6	<0.6	<0.6	<0.6	< 0.6	< 0.06	< 0.03	0	0	100	Deg.Fuel 145.6%	
s	S-3-6	10.3	<0.5	<0.5	<0.5	<0.5	< 0.52	< 0.05	< 0.026	0	0	100	Match not possible	
Initial Calibrator QC check			OK		Low Range Calibrator Final check					Low	0.064			
					High Range Calibrator Final check					Low	1.415			

Results generated by a QED HC-1 analyser  
 Concentration values in mg/kg for soil samples and mg/L for water samples.  
 Soil values are not corrected for moisture or stone content

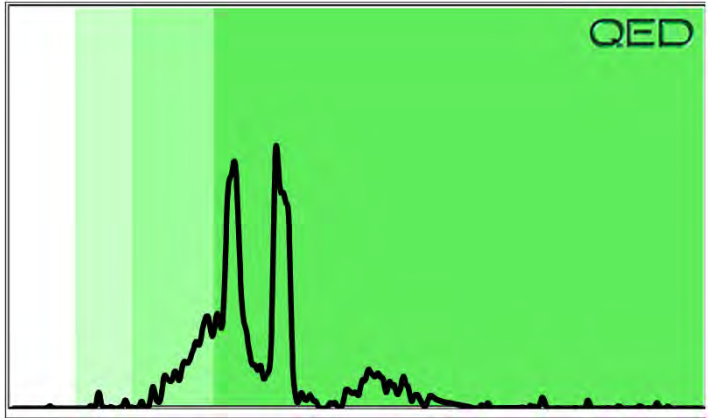
Fingerprints provide a tentative hydrocarbon identification based on operator selected library matches  
 Fingerprint match abbreviations Est = Specific calibrator not used, result estimated (PFM)= Poor library fingerprint match  
 (SBS)= site specific background subtracted (LBS)= Library background subtracted % = match confidence



Deg.Fuel 145.6% S-3-5



Match not possible S-4-6







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

### CHAIN-OF-CUSTODY RECORD

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 C Chilled H HCL Ot Other (see Remarks)
GEL ENG. of N.C.		B-4159 Cullowhee, N.C.									
SAMPLERS		CONTACT PERSON				BATCH # (Lab Use Only)					
WISB, RSG		Andrew Eyer									
SAMPLE FIELD ID. \ NUMBER	DATE SAMPLED	TIME SAMPLED	COMP.	GRAB	DATE REC'D	TIME REC'D	STATION LOCATION / No.			COMMENT / SAMPLE PRE FIX	
S-3-4	12/19/13	1155		X			Weight 12.92	S	1	48hr TA	
S-3-5	L	1215		X			11.63	S	1	48hr TA	
<del>S-3-6</del> S-3-6	L	1230		X			13.57	S	1	48hr TA	
ADE											
Prelined Containers Relinquished by: (Signature)		Date / Time		Received by: (Signature)				Date / Time		Remarks and Observations	
Steve Rudo		12/19/13 14:00		[Signature]				12/20/13			
Relinquished by: (Signature)		Date / Time		Received by: (Signature)				Date / Time			
				[Signature]							

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

## **Pace Analytical Services Results**



Pace Analytical Services, Inc.  
205 East Meadow Road - Suite A  
Eden, NC 27288  
(336)623-8921

Pace Analytical Services, Inc.  
2225 Riverside Dr.  
Asheville, NC 28804  
(828)254-7176

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

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

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



**Pace Analytical Services, Inc.**  
205 East Meadow Road - Suite A  
Eden, NC 27288  
(336)623-8921

**Pace Analytical Services, Inc.**  
2225 Riverside Dr.  
Asheville, NC 28804  
(828)254-7176

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

## CERTIFICATIONS

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

---

### Charlotte Certification IDs

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

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

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## REPORT OF LABORATORY ANALYSIS

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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

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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	<b>104</b>	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

**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	23.3	%	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

**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

**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	<b>772</b>	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	<b>187</b>	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	

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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						
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

**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	

## 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>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	16.2	%	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-5-2**      **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

**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

**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	

## REPORT OF LABORATORY ANALYSIS

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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								
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	

## REPORT OF LABORATORY ANALYSIS

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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						
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	
1,1,1,2,2-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	29.5	%	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-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

**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

**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	
1,1,1,2,2-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	26.1	%	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-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

**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	

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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						
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	

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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

**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	

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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>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

**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	
1,1,1,2,2-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	

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 (704)875-9092

### 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

**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

**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	

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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						
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	
1,1,1,2,2-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	14.6	%	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-3-5 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	16.7	%	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-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		1114781		1114782		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec			
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	

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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	

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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-Dichloroethane	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 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 SOIL WBS33507.1.1  
Pace Project No.: 92184133

SAMPLE DUPLICATE: 1112884

Parameter	Units	92184127002 Result	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	

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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
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	

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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	

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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	

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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	

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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-Dichloroethane	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 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	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

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### QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

SAMPLE DUPLICATE: 1114088

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

### REPORT OF LABORATORY ANALYSIS

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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		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
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	

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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 & MATRIX SPIKE DUPLICATE: 1110355 1110356

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92184127007 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

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### QUALITY CONTROL DATA

Project: B-4159 SOIL WBS33507.1.1

Pace Project No.: 92184133

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1110355 1110356												
Parameter	Units	MS		MSD		MS		MSD		% Rec	RPD	Qual
		92184127007	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
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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**QUALITY CONTROL DATA**

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

Parameter	Units	1110355		1110356		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		92184127007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
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

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	92184090001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	25.0	20.8	18	

SAMPLE DUPLICATE: 1110282

Parameter	Units	92183893025 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).

## REPORT OF LABORATORY 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 No.: F-ASV-CS-003-rev.11

Document Revised: June 4, 2013  
 Page 1 of 2  
 Issuing Authorities:  
 Pace Asheville Quality Office

Client Name: Geel 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  None  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 NA  
 Temp should be above freezing to 6°C

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

	Comments:
Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	5.
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	7.
Sufficient Volume: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	8.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	9.
-Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	10.
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	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"/> NA	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"/> NA	
exceptions: VOA, coliform, TOC, O&G, W-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"/> NA	14.
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	15.
Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	
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

Pace label here

OR

Handwrite project number (if no label available)

92184133



