

**GEL**

**Engineering of NC INC**

an affiliate of **The GEL Group INC**

## **PRELIMINARY SITE ASSESSMENT REPORT**

**2968 Old Cullowhee Road (SR 1002)  
Arnold Ashe Property, Parcel 020  
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

April 16, 2014

## PRELIMINARY SITE ASSESSMENT REPORT

**2968 Old Cullowhee Road (SR 1002)  
Arnold Ashe Property, Parcel 020  
Cullowhee, North Carolina  
State Project B-4159, WBS Element #33507.1.1  
Jackson County**

### TABLE OF CONTENTS

<u>Section</u>	<u>Subject</u>	<u>Page</u>
Signature Page .....		i
Executive Summary.....		iii
1.0      Introduction .....		1
2.0      Background .....		1
3.0      Local Geology and Surroundings .....		2
4.0      Subsurface Investigation .....		3
4.1    Geophysical Survey .....		3
4.1.1   Ground Penetrating Radar Methodology .....		3
4.1.2   Time Domain Electromagnetic Methodology .....		5
4.1.3   Field Procedures .....		6
4.2    Subsurface Soil Investigation .....		6
5.0      Conclusions and Recommendations.....		7

#### Figures

- 1      Site Location Map
- 2      Designated Investigation Area for Parcel 020
- 3      Site Map Showing Results of Geophysical Investigation
- 4      Site Map Showing Locations of Soil Borings
- 5      Supplemental Legend for Use with Figures 2, 3, and 4

#### Tables

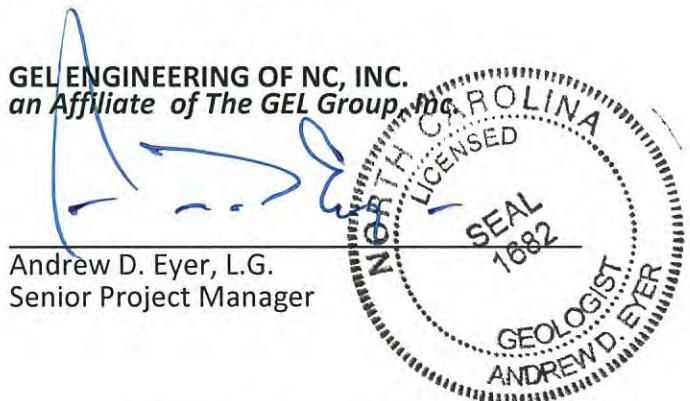
- 1      Summary of Analytical Results for Collected Soil Samples

#### Appendices

- I      Photographs
- II     Soil Boring Lithologic Logs
- III    Certificates of Analysis and Chain of Custody Records for Soil Samples

## Signature Page

This document, entitled *Preliminary Site Assessment Report*, has been prepared for the Arnold Ashe Property (Parcel 020), located at 2968 Old Cullowhee Road in Cullowhee, North Carolina (State Project B-4159, WBS Element #33507.1.1, Jackson County). It has been prepared by GEL Engineering of NC, Inc. in accordance with the Notice to Proceed provided by the North Carolina Department of Transportation-GeoEnvironmental Section, Geotechnical Engineering Unit for the exclusive use of the North Carolina Department of Transportation. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned.



04-16-14

Date

## **PRELIMINARY SITE ASSESSMENT REPORT**

**2968 Old Cullowhee Road (SR 1002)  
Arnold Ashe Property, Parcel 020  
Cullowhee, North Carolina  
State Project B-4159, WBS Element #33507.1.1  
Jackson County**

### **Executive Summary**

The subject site is the Arnold Ashe property (Parcel 020) located at 2968 Old Cullowhee Road (SR 1002) 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 North Carolina Department of Transportation (NCDOT) existing and proposed Rights-of-Way (ROWS) and easements adjacent to Parcel 020, as a result of previous and/or current operations at the subject site.

Parcel 020 contains the Cullowhee Café, which is a 1-story building that operates as a restaurant. The Cullowhee Café currently operates as a restaurant on the property, and replaced a Pizza Hut restaurant several years ago, which had been operating at the site since 1975. There is currently no visible evidence of existing USTs or vents at the site, and representatives of the NCDENR Asheville District office indicated that there are no files for the site in its database. 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 existing and proposed NCDOT ROWs and easements that included a geophysical investigation, and the collection and analysis of soil samples. No subsurface anomalies indicative of suspected or known USTs were identified, and it has been concluded that there are no USTs present within the existing or proposed ROWs or easements.

## **Executive Summary (continued)**

Soil samples were collected for analysis from two borings constructed within the investigation area, and analyzed for petroleum hydrocarbon constituents, including Diesel Range Organics (DRO) and Gasoline Range organics (GRO). Neither DRO nor GRO was detected at levels exceeding the NCDENR action level for DRO and GRO (10 milligrams per kilogram).

No additional environmental investigation of the soil at the site is recommended at this time.

## **PRELIMINARY SITE ASSESSMENT REPORT**

**2968 Old Cullowhee Road (SR 1002)**  
**Arnold Ashe Property, Parcel 020**  
**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 within the North Carolina Department of Transportation (NCDOT) existing and proposed Rights-of-Way (ROWs) and easements at the Arnold Ashe property (Parcel 020) located at 2968 Old Cullowhee Road (SR 1002) in Cullowhee, North Carolina.

Parcel 020 contains a 1-story building that operates as a restaurant, as shown in Photographs 1 and 2 in Appendix I. 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 the NCDOT ROWs and proposed easements at the subject site as a result of current and/or former operations.

### **2.0 Background**

NCDOT is planning road improvements to the area in the vicinity of Old Cullowhee Road in Cullowhee, North Carolina. NCDOT wanted to assess the area in the ROW and proposed easements on the north side of Old Cullowhee Road, adjacent to Parcel 020, 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 020.

The Cullowhee Café currently operates as a restaurant on the property, and replaced a Pizza Hut restaurant several years ago, which had been operating at the site since 1975. The manager of Cullowhee Café indicated that petroleum products had never been stored or distributed at the site. There is currently no visible evidence of existing USTs or vents at the site, and representatives of the NCDENR Asheville District office indicated that there are no files for the site in its database. No NCDENR UST Incident number or Facility ID number has been assigned to the property.

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

Parcel 020 is located in a developed area of Cullowhee in Jackson County, North Carolina. Surrounding land uses include residential and commercial activities.

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. The soils encountered at the site during the preliminary site assessment consisted predominantly of red/brown sandy clay.

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 2100 feet above mean sea level. The topography in Figure 1 indicates that groundwater in the vicinity of Parcel 020 most likely flows in a northerly direction towards the Tuckasegee River.

## 4.0 Subsurface Investigation

To evaluate the presence or absence of USTs and/or impact to subsurface soil within the NCDOT ROW and proposed easements for the Parcel 020, GEL performed a limited site assessment in 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 northerly ROW and proposed easements of Old Cullowhee Road fronting Parcel 020.
- Soil vapor screening of soil samples collected from subsurface soil borings located within the northerly ROW and proposed easements of Old Cullowhee Road fronting Parcel 020 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 16, 2013, within the existing and proposed ROWs and easements fronting Parcel 020, 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 020 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. No GPR subsurface anomalies were identified at the site, but a large EM-61 subsurface anomaly was identified covering the width of site's asphalt entrance driveway. It has been concluded that the identified anomaly was the result of concrete paving beneath the asphalt, which was during the construction of boring S20-1, located on the eastern side of the driveway.

#### **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 two subsurface soil borings, S20-1 and S20-2, at Parcel 020 on December 16, 2013, for analysis of total petroleum hydrocarbon indicator parameters. The soil borings were constructed within the northerly ROW and proposed easements of Old Cullowhee Road, as shown on Figure 4 and Photograph 2 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 020**

Soil Boring	Depth Interval of Soil Sample Collected for Analysis (feet bgs)	PID Reading (ppm)	Northing	Easting
S20-1	7-8	0.0	596840.936	754584.824
S20-2	7-8	0.0	596813.228	754525.082

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 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 DPT provided by Regional Probing. 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 two borings. Therefore, to assess the subsurface soil quality, soil samples collected at a depth of 7-8 feet bgs from borings S20-1 and S20-2 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. Boring S20-1 was topped 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, and to Pace Analytical Services, Inc. (Pace) in Huntersville, North Carolina for analysis of diesel range organics (DRO) by EPA Method 8015 with EPA Method 3545 sample preparation, and gasoline range organics (GRO) by EPA Method 8015 with EPA Method 5035A/5030B sample preparation. 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. Both the QROS results and the Pace results indicate that no petroleum hydrocarbon constituents were detected in the soil samples collected from borings S20-1 and S20-2 at levels exceeding the NCDENR action level for DRO and GRO (10 milligrams per kilogram (mg/kg)).

## 5.0 Conclusions and Recommendations

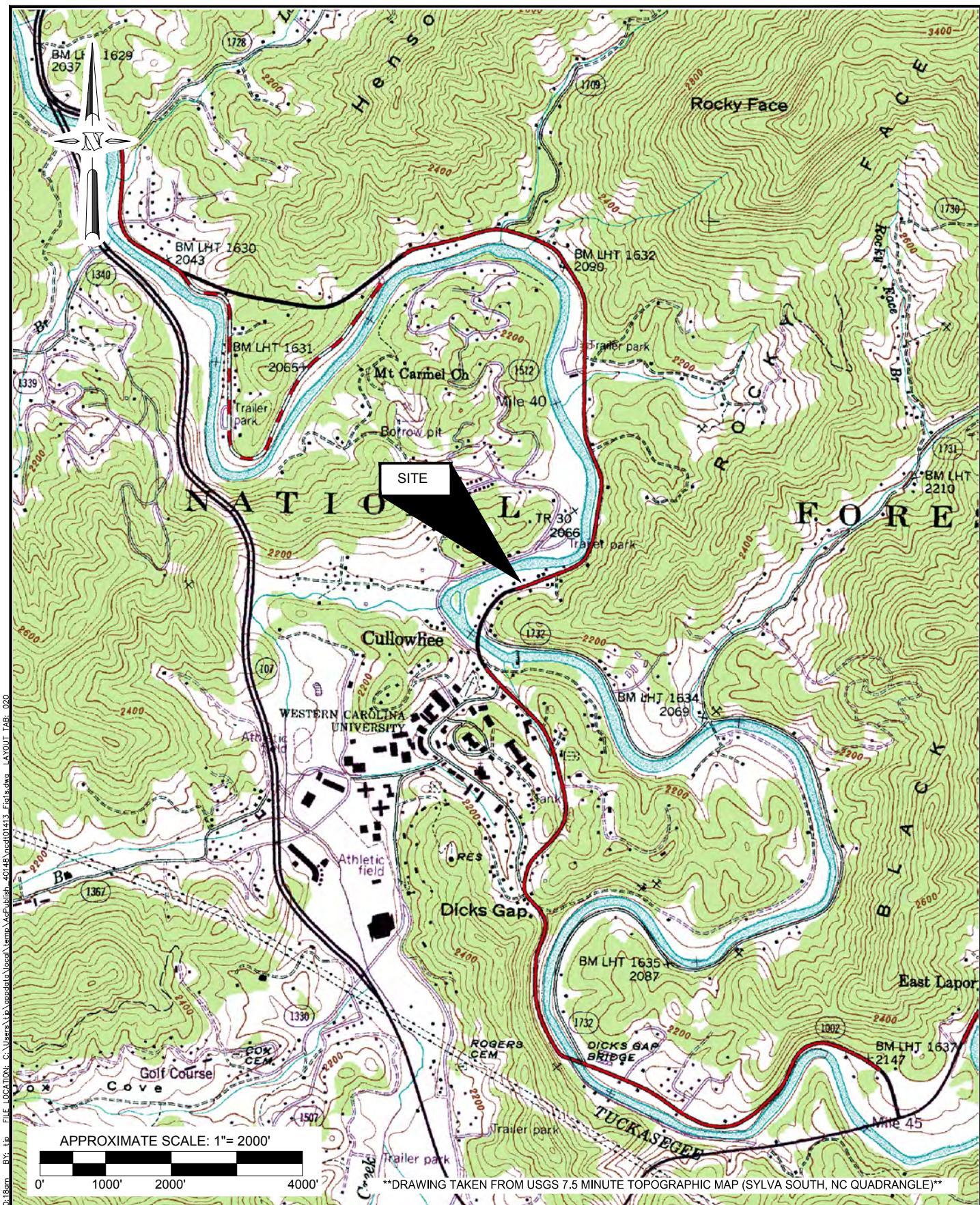
GEL performed a preliminary site assessment within the NCDOT northerly ROW and proposed easements fronting Parcel 020 that included a geophysical investigation, and the collection and analysis of soil samples. No subsurface anomalies indicative of suspected or known USTs were identified within the investigation area, and it has been

concluded that there are no USTs present within the northerly existing and proposed ROWs and proposed easements adjacent to the site.

Soil samples were collected for analysis from two borings constructed within the investigation area, and analyzed for petroleum hydrocarbon constituents, including DRO and GRO. Neither DRO nor GRO was detected at levels exceeding the NCDENR action level for DRO and GRO (10 mg/kg).

No additional environmental investigation of the soil at the site is recommended at this time.

## **FIGURES**



**GEL** Engineering LLC  
 a member of THE GEL GROUP INC  
 ENVIRONMENTAL ■ ENGINEERING ■ SURVEYING  
 problem solved

P.O. Box 30712  
 Charleston, SC 29417  
 2040 Savage Road  
 Charleston, SC 29407  
 P (843) 769-7378  
 F (843) 769-7397  
[www.gel.com](http://www.gel.com)

PROJECT: ncdt01413

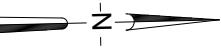
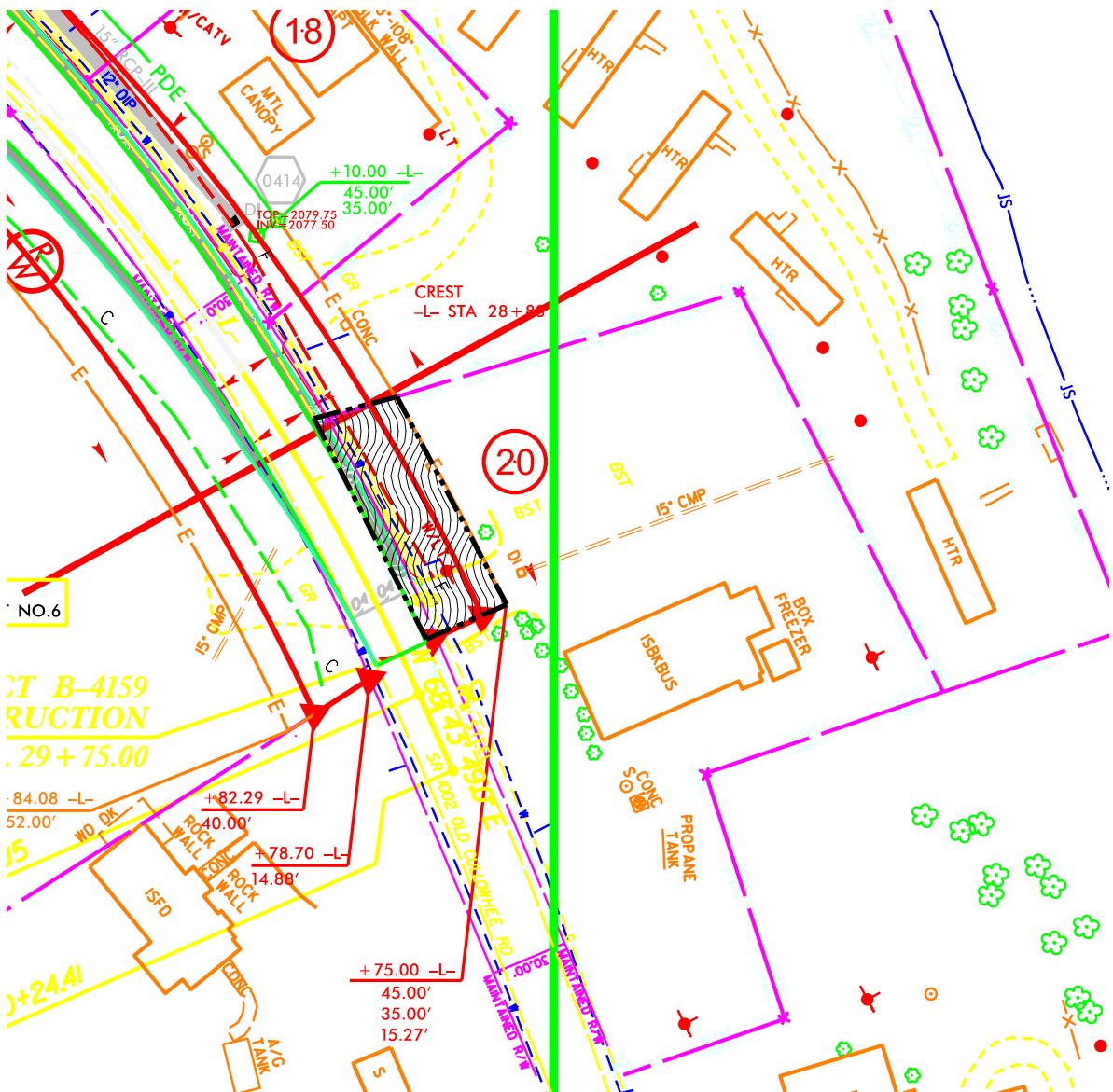
PRELIMINARY SITE ASSESSMENT  
 PARCEL 020  
 CULLOWHEE, JACKSON COUNTY,  
 NORTH CAROLINA  
 TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1

SITE LOCATION  
 MAP

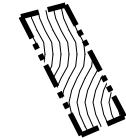
FIGURE  
 1

DATE: February 3, 2014

DRAWN: TJP APPR.: ADE



**PARCEL 020  
INVESTIGATION AREA**



SEE FIGURE 5 FOR  
SUPPLEMENTAL LEGEND  
FOR USE WITH FIGURE 2

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

**GEL**

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

PROJECT: nc01413

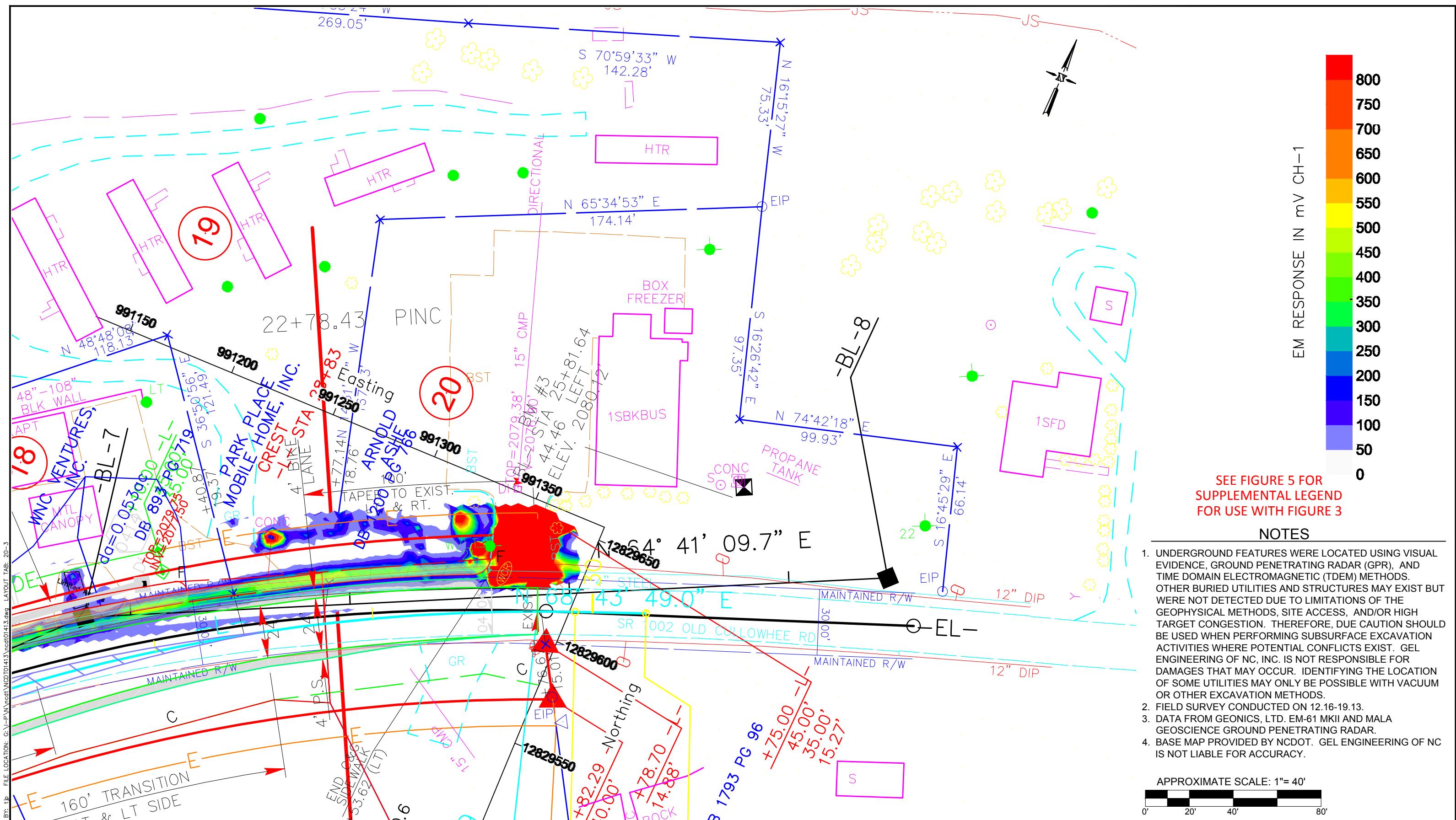
PRELIMINARY SITE ASSESSMENTS  
JACKSON COUNTY, NORTH CAROLINA  
TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1

DATE: February 25, 2014

DESIGNATED INVESTIGATION AREA  
FOR PARCEL 020

FIGURE  
2

DRAWN BY: ADE



**GEL** Engineering of NC Inc

an Affiliate of THE GEL GROUP INC  
ENVIRONMENTAL ■ ENGINEERING ■ SURVEYING

## problem solved

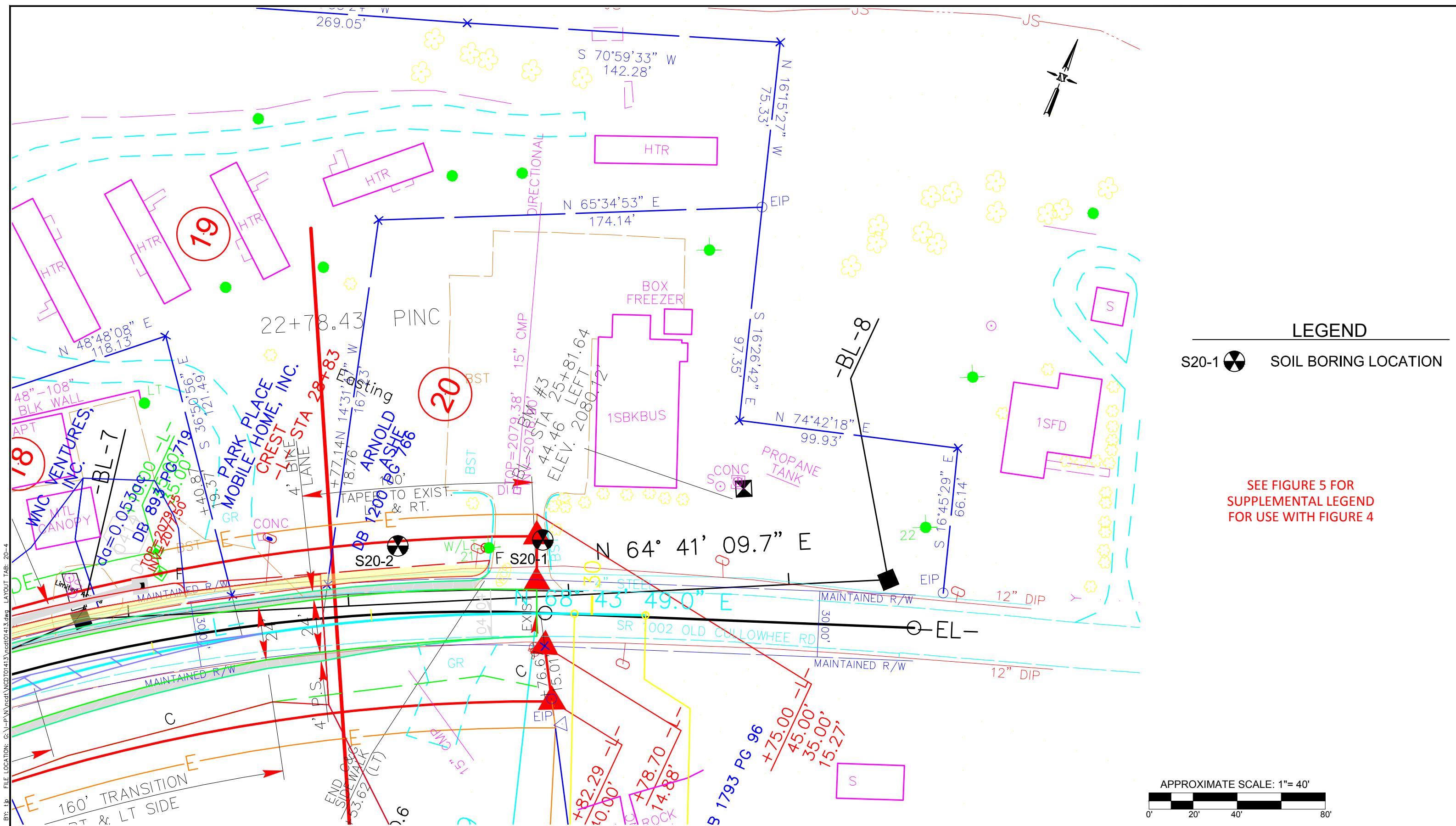
Post Office Box 14262  
Research Triangle Park, NC 27709  
P 919-544-1100  
F 919-406-1807  
[www.gel.com](http://www.gel.com)

PROJECT: ncdt01413

**PRELIMINARY SITE ASSESSMENT  
PARCEL 020  
CULLOWHEE, JACKSON COUNTY,  
NORTH CAROLINA  
TIP NO. B-4159, WBS ELEMENT NO. 33507.**

## SITE MAP SHOWING RESULTS OF GEOPHYSICAL INVESTIGATION

# FIGURE 3



**GEL** Engineering of NC Inc

an Affiliate of THE GEL GROUP INC  
ENVIRONMENTAL ■ ENGINEERING ■ SURVEYING

## problem solved

Post Office Box 1426  
Research Triangle Park, NC 27709  
P 919-544-1100  
F 919-406-1801  
[www.gel.com](http://www.gel.com)

PROJECT: ncdt0141

**PRELIMINARY SITE ASSESSMENT  
PARCEL 020  
CULLOWHEE, JACKSON COUNTY  
NORTH CAROLINA**

DATE: April 14, 20

## SITE MAP SHOWING LOCATIONS OF SOIL BORINGS

# FIGURE 4

04/05/11  
Note: Not to Scale

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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

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

## CONVENTIONAL PLAN SHEET SYMBOLS

### BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin
- Property Corner
- Property Monument
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

### BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or UG Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

### HYDROLOGY:

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

### RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

### RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite RW Marker
- Proposed Control of Access Line with Concrete CA Marker
- Existing Control of Access
- Proposed Control of Access
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed 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
- End of Information

AATUR

E.O.I.

NOTE: LEGEND WAS PROVIDED BY NCDOT

GEL ENGINEERING of NC, Inc. <i>an Affiliate of THE GEL GROUP, Inc.</i>	<b>GEL</b> Post Office Box 14262 Research Triangle Park, NC 27709 (919) 544-1100	PROJECT: nc01413	SUPPLEMENTAL LEGEND FOR USE WITH FIGURES 2, 3, AND 4	FIGURE 5
		PRELIMINARY SITE ASSESSMENT PARCEL 020 CULLOWHEE, JACKSON COUNTY, NORTH CAROLINA TIP NO. B-4159, WBS ELEMENT NO. 33507.1.1		
DATE:	April 2, 2014	DRAWN BY: ADE		

## **TABLES**

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

**Preliminary Site Assessment**  
**Parcel 020, 2968 Old Cullowhee Road**  
**Cullowhee, Jackson County, North Carolina**  
**State Project No. B-4159, WBS Element #33507.1.1**

Sample ID	Diesel Range Organics (DRO)		Gasoline Range Organics (GRO)		QROS Analytical Results				
	QROS	Pace	QROS	Pace	BTEX (C6-C9)	TPH (C5-C35)	Total Aromatics (C10-C35)	16 EPA PAHs	Benzo(a)pyrene
S20-1	3.7	< 6.0	< 0.6	< 5.6	< 0.5	3.7	3.08	< 0.05	< 0.027
S20-2	< 0.6	< 6.7	< 0.6	< 6.2	< 0.6	< 0.6	< 0.57	< 0.06	< 0.028
<b>NCDENR Action Level</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>					
<b>NCDENR MSCC</b>									<b>0.096</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) Reported values exceeding corresponding NCDENR Action Levels or MSCCs are highlighted in yellow.

## **APPENDICES**

**APPENDIX I**  
**PHOTOGRAPHS**



Photograph 1: View looking east from Parcel 018 at Parcel 019 (in foreground) and Parcel 020 (in background).



Photograph 2: View looking east at soil boring locations S20-1 and S20-2.



Photograph 3: View looking west from parcel 020 at Parcel 019 (in center) and Parcel 018 (in background).

**APPENDIX II**

**SOIL BORING LITHOLOGIC LOGS**

## SOIL BORING LOG

Boring/Well No.: **S20-1**

Date Started: 12/16/13

Date Completed: 12/16/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	(3'-4') 0.0	Red Clay; Moist; Cohesive; Asphalt/Gravel 0'-0.75'	CL
2	4.0' – 8.0'	--	(7'-8') 0.0	Red Sandy Silt with Gravel; Moist	ML
3					
4				Total depth = 8 feet below land surface	
5					
6					
7					
8					
9					
10					
11					
12					

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.: **S20-2**

Date Started: 12/16/13

Date Completed: 12/16/13

No.	Depth Interval	Blow Counts	PID (ppm)	Soil Description	Soil Type
1	0.0' – 4.0'	--	(3'-4') 0.0	Red Sandy, Silty Clay; Moist; Micaceous Clay; ROC/gravel 0'-0.5'	CL
2	4.0' – 8.0'	--	(7'-8') 0.0	Red/Brown Silt with Sand; Moist; Micaceous	ML
3					
4				Total depth = 8 feet below land surface	
5					
6					
7					
8					
9					
10					
11					
12					

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 ENS of NC

Samples taken

12/16 &amp; 12/17/13

Address:

Samples extracted

12/16 &amp; 12/17/13

Samples analysed

Thursday, December 19, 2013

Contact: Andrew Eyer

Operator

CSB

Project: B-4159, Cullowhee NC

Matrix	Sample ID	Dilution used	BTEX	GRO	DRO	TPH	Total Aromatics	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
			(C6 - C9)	(C5 - C10)	(C10 - C35)	(C5 - C35)	(C10-C35)			% light	% mid	% heavy	
s	S-18-3	10.9	<0.5	<0.5	28.7	28.7	20.94	0.48	< 0.027	57.2	39.9	2.9	V.Deg.PHC 98.5%
s	S-18-2	14.0	<0.7	<0.7	26.7	26.7	19.79	0.58	0.07	53.6	38.9	7.5	V.Deg.PHC 80.9%
s	S-18-1	60.2	<3	<3	179.4	179.4	133.97	3.02	< 0.15	52.2	44.5	3.3	V.Deg.PHC 98.5%
s	S-19.1	11.6	<0.6	<0.6	<0.6	<0.6	< 0.58	< 0.06	< 0.029	0	0	100	Deg.Fuel 700.2%
s	S-20-2	11.4	<0.6	<0.6	<0.6	<0.6	< 0.57	< 0.06	< 0.028	0	41	59	PAH
s	S-20-1	10.9	<0.5	<0.5	3.7	3.7	3.08	< 0.05	< 0.027	55.4	37.6	7	Degraded Fuel (PFM)
s	S-11-1	10.7	<0.5	<0.5	<0.5	<0.5	< 0.54	< 0.05	< 0.027	0	0	100	Match not possible
s	S-11-2	21.2	<1.1	<1.1	37.4	37.4	28.99	0.94	0.16	44.9	37.8	17.4	V.Deg.PHC 74%
s	S-11-3	48.8	<2.4	<2.4	39.1	39.1	29.43	0.7	< 0.122	50.6	40.8	8.6	V.Deg.PHC 99.9%
s	S-13-1	10.8	<0.5	<0.5	12.4	12.4	11.6	0.43	0.08	45.3	44.7	10	V.Deg.PHC 73.9%
Initial Calibrator QC check				OK	Low Range Calibrator Final check				Low	0.067			
					High Range Calibrator Final check				OK	1.536			

Results generated by a QED HC-1 analyser

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

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

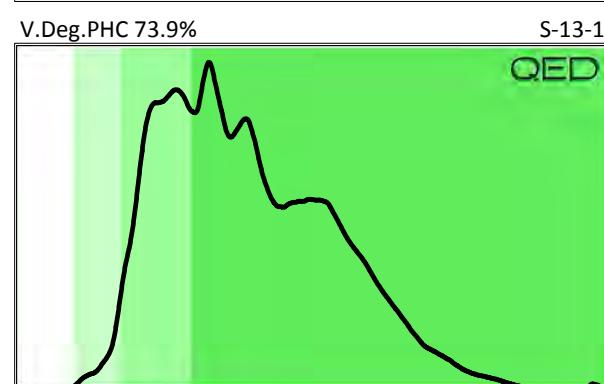
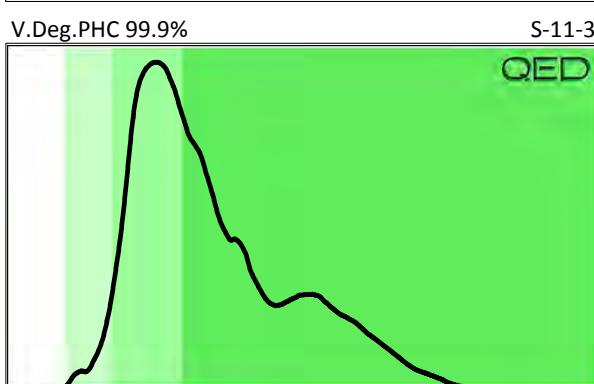
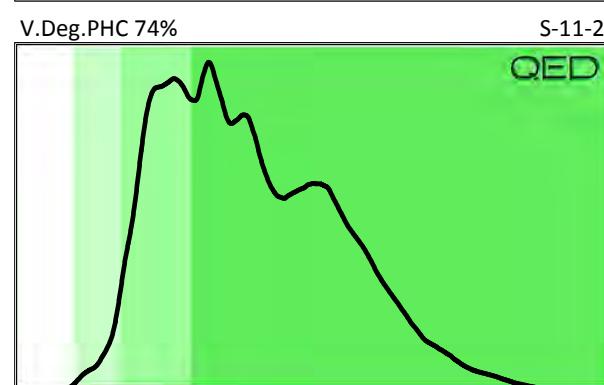
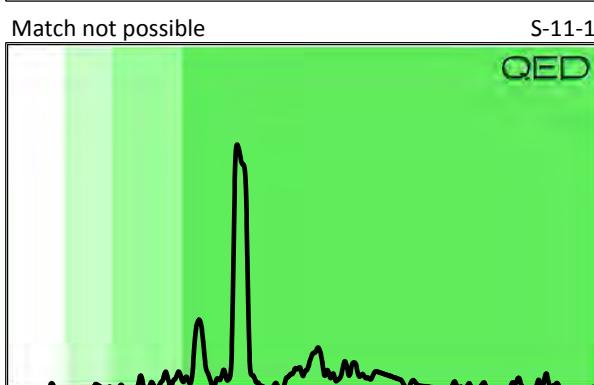
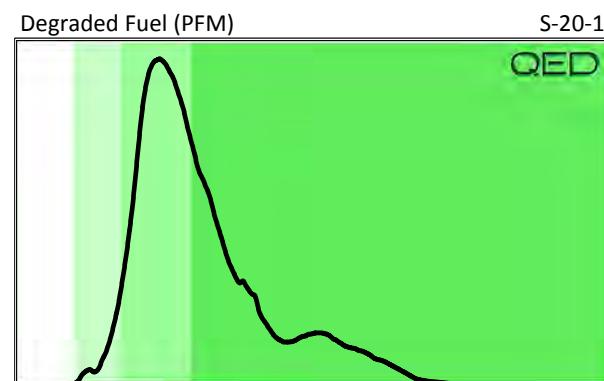
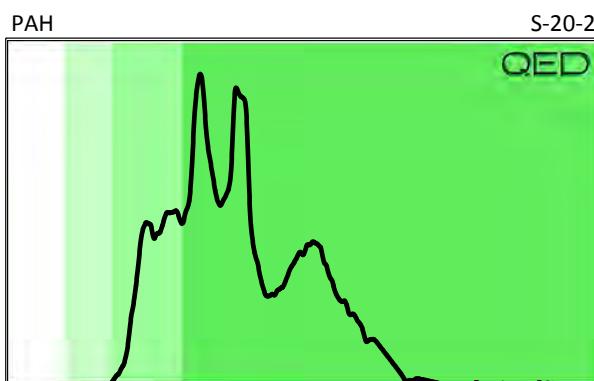
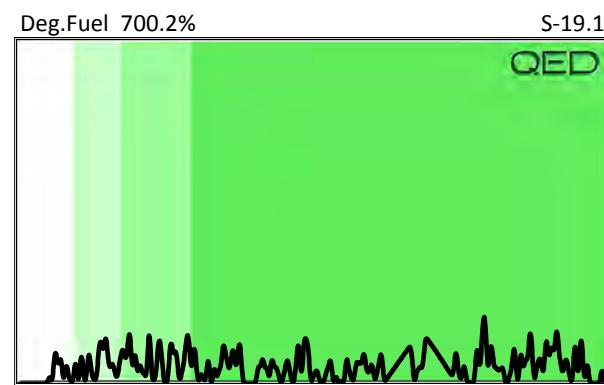
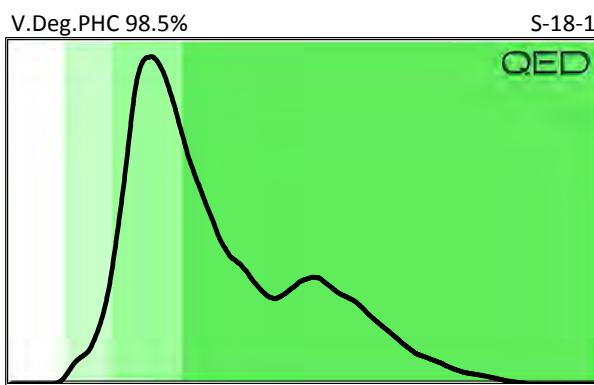
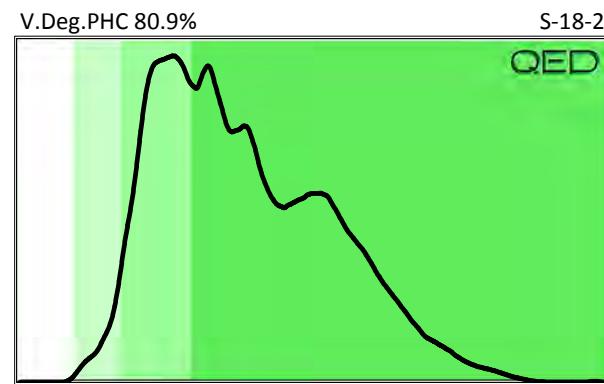
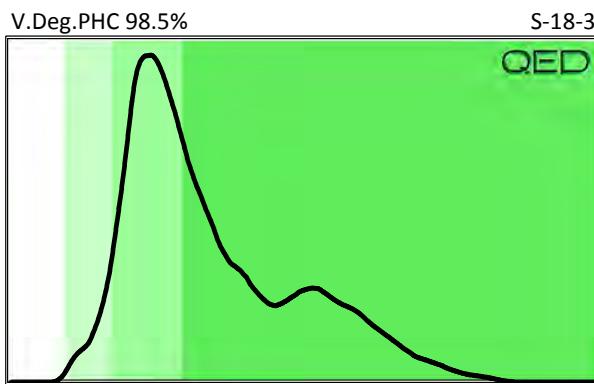
Fingerprint match abbreviations

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

Soil values are not corrected for moisture or stone content

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

% = match confidence





# CHAIN-OF-CUSTODY RECORD

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

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

MOBILE UNIT #

CLIENT NAME	PROJECT NAME & ADDRESS							SAMPLE MATRIX	NUMBER OF CONTAINERS	IDENTIFY PARAMETERS DESIRED AND NO. OF CONTAINERS	PRESERVATION
	SAMPLERS	CONTACT PERSON	BATCH # (Lab Use Only)								
SAMPLE FIELD ID\ NUMBER	DATE SAMPLED	TIME SAMPLED	COMP.	GRAB	DATE REC'D	TIME REC'D	STATION LOCATION / No.				COMMENT / SAMPLE PRE FIX
S-18-3	12/16/13	1330	X					S	1	✓	48 hr TA
S-18-2		1350	X					S	1	✓	48 hr TA
S-18-1		1420	X					S	1	✓	48 hr TA
S-19-1		1525	X					S	1	✓	48 hr TA
S-20-2		1555	X					S	1	✓	48 hr TA
S-20-1		1615	X					S	1	✓	48 hr TA
S-11-1		1650	X					S	1	✓	48 hr TA
S-11-2	12/17/13	0920	X					S	1	✓	48 hr TA
S-11-3		0945	X					S	1	✓	48hr TA
S-13-1		1015	X					S	1	✓	48hr TA
S-13-2		1045	X					S	1	✓	48hr TA
S-15-1		1110	X					S	1	✓	48hr TA
S-12-1		1155	X					S	1	✓	48hr TA
S-12-2		1230	X					S	1	✓	48hr TA
S-12-4		1245	X					S	1	✓	48hr TA
Precleaned Containers Relinquished by: (Signature) <i>Steve Rucker</i>	Date / Time	Received by: (Signature)			Date / Time	Remarks and Observations					
Relinquished by: (Signature) <i>Dan Eng</i>	Date / Time	Received by: (Signature)			Date / Time						

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

## **Pace Analytical Services Results**

January 10, 2014

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

RE: Project: NCDT01413 WBS33507.1.1  
Pace Project No.: 92184006

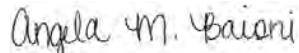
Dear Andrew Eyer:

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.

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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## CERTIFICATIONS

Project: NCDT01413 WBS33507.1.1  
Pace Project No.: 92184006

---

### Charlotte Certification IDs

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

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

---

## REPORT OF LABORATORY ANALYSIS

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

## SAMPLE ANALYTE COUNT

Project: NCDT01413 WBS33507.1.1  
 Pace Project No.: 92184006

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92184006001	S-18-3	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006002	S-18-2	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006003	S-18-1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006004	S-19-1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006005	S-20-2	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006006	S-20-1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006007	S-11-1	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006008	S-11-2	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006009	S-11-3	EPA 8015 Modified	NU1	2	PASI-C
		EPA 8015 Modified	GAW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006010	S-13-1	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006011	S-13-2	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006012	S-15-1	EPA 8270	BPJ	74	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92184006013	S-12-1	EPA 8015 Modified	NU1	2	PASI-C

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## SAMPLE ANALYTE COUNT

Project: NCDT01413 WBS33507.1.1  
Pace Project No.: 92184006

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory	
92184006014	S-12-2	EPA 8015 Modified	GAW	2	PASI-C	
		ASTM D2974-87	TNM	1	PASI-C	
92184006015	S-12-4	EPA 8015 Modified	NU1	2	PASI-C	
		ASTM D2974-87	GAW	2	PASI-C	
92184006016	S-12-3	EPA 8015 Modified	NU1	2	PASI-C	
		ASTM D2974-87	GAW	2	PASI-C	
92184006017	S-12-5	EPA 8015 Modified	ASTM D2974-87	TNM	1	PASI-C
		EPA 8270	BPJ	74	PASI-C	
92184006018	S-12-6	EPA 8260	DLK	70	PASI-C	
		ASTM D2974-87	TNM	1	PASI-C	
92184006019	S-12-7	EPA 8270	BPJ	74	PASI-C	
		EPA 8260	DLK	70	PASI-C	
92184006020	S-12-8	ASTM D2974-87	TNM	1	PASI-C	
		EPA 8270	BPJ	74	PASI-C	
92184006021	S-12-9	EPA 8260	DLK	70	PASI-C	
		ASTM D2974-87	TNM	1	PASI-C	
92184006022	S-8-1	EPA 8270	BPJ	74	PASI-C	
		EPA 8260	DLK	70	PASI-C	
92184006023	S-8-2	ASTM D2974-87	TNM	1	PASI-C	
		EPA 8270	BPJ	74	PASI-C	
92184006024	S-8-5	EPA 8260	DLK	70	PASI-C	
		ASTM D2974-87	TNM	1	PASI-C	
		EPA 8270	BPJ	74	PASI-C	
		EPA 8260	DLK	70	PASI-C	
		ASTM D2974-87	TNM	1	PASI-C	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-18-3** Lab ID: **92184006001** Collected: 12/16/13 13:30 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	<b>24.2</b> mg/kg		6.2	1	12/19/13 12:58	12/20/13 23:54	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	62 %		41-119	1	12/19/13 12:58	12/20/13 23:54	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	12/28/13 09:55	12/28/13 16:28	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99 %		70-167	1	12/28/13 09:55	12/28/13 16:28	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>18.9</b> %		0.10	1			12/20/13 08:43	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-18-2** Lab ID: **92184006002** Collected: 12/16/13 13:50 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	<b>35.9</b> mg/kg		6.0	1	12/19/13 12:58	12/21/13 00:40	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	80 %		41-119	1	12/19/13 12:58	12/21/13 00:40	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	12/28/13 09:55	12/28/13 16:51	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	104 %		70-167	1	12/28/13 09:55	12/28/13 16:51	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.9</b> %		0.10	1			12/20/13 08:43	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-18-1** Lab ID: **92184006003** Collected: 12/16/13 14:20 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	<b>49.2</b> mg/kg		6.0	1	12/19/13 12:58	12/21/13 00:40	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	54 %		41-119	1	12/19/13 12:58	12/21/13 00:40	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.8	1	12/28/13 09:55	12/28/13 17:14	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98 %		70-167	1	12/28/13 09:55	12/28/13 17:14	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.2</b> %		0.10	1			12/20/13 08:43	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-19-1** Lab ID: **92184006004** Collected: 12/16/13 15:25 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	<b>7.6</b> mg/kg		6.7	1	12/19/13 12:58	12/21/13 01:03	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	71 %		41-119	1	12/19/13 12:58	12/21/13 01:03	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.2	1	12/28/13 09:55	12/28/13 17:37	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97 %		70-167	1	12/28/13 09:55	12/28/13 17:37	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>25.5</b> %		0.10	1			12/20/13 08:44	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-20-2** Lab ID: **92184006005** Collected: 12/16/13 15:55 Received: 12/19/13 11:15 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		6.7	1	12/19/13 12:58	12/21/13 01:03	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	75 %		41-119	1	12/19/13 12:58	12/21/13 01:03	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		6.2	1	12/28/13 09:55	12/28/13 18:00	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98 %		70-167	1	12/28/13 09:55	12/28/13 18:00	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>25.0</b> %		0.10	1			12/20/13 08:44	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-20-1** Lab ID: **92184006006** Collected: 12/16/13 16:15 Received: 12/19/13 11:15 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	12/19/13 12:58	12/21/13 01:27	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	75 %		41-119	1	12/19/13 12:58	12/21/13 01:27	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.6	1	12/28/13 09:55	12/28/13 18:22	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99 %		70-167	1	12/28/13 09:55	12/28/13 18:22	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>16.9 %</b>		0.10	1			12/20/13 08:44	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-11-1** Lab ID: **92184006007** Collected: 12/16/13 16:50 Received: 12/19/13 11:15 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	12/19/13 12:58	12/21/13 01:27	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	71 %		41-119	1	12/19/13 12:58	12/21/13 01:27	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		4.9	1	12/28/13 09:55	12/28/13 18:45	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97 %		70-167	1	12/28/13 09:55	12/28/13 18:45	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>15.4 %</b>		0.10	1			12/20/13 08:44	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-11-2** Lab ID: **92184006008** Collected: 12/17/13 09:20 Received: 12/19/13 11:15 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		6.6	1	12/19/13 12:58	12/21/13 01:50	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	66 %		41-119	1	12/19/13 12:58	12/21/13 01:50	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		6.6	1	12/28/13 09:55	12/28/13 19:08	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	96 %		70-167	1	12/28/13 09:55	12/28/13 19:08	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>24.7 %</b>		0.10	1			12/20/13 08:44	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-11-3** Lab ID: **92184006009** Collected: 12/17/13 09:45 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	<b>10.2</b> mg/kg		6.7	1	12/19/13 12:58	12/21/13 01:50	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	77 %		41-119	1	12/19/13 12:58	12/21/13 01:50	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.3	1	12/28/13 09:55	12/28/13 19:31	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97 %		70-167	1	12/28/13 09:55	12/28/13 19:31	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>25.9</b> %		0.10	1			12/20/13 08:44	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-13-1      Lab ID: 92184006010      Collected: 12/17/13 10:15      Received: 12/19/13 11:15      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		405	1	12/19/13 13:00	12/20/13 20:03	83-32-9	
Acenaphthylene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	208-96-8	
Aniline	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	62-53-3	
Anthracene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	120-12-7	
Benzo(a)anthracene	<b>598</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	56-55-3	
Benzo(a)pyrene	<b>583</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	50-32-8	
Benzo(b)fluoranthene	<b>478</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	191-24-2	
Benzo(k)fluoranthene	<b>520</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	207-08-9	
Benzoic Acid	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	65-85-0	
Benzyl alcohol	ND ug/kg		809	1	12/19/13 13:00	12/20/13 20:03	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	101-55-3	
Butylbenzylphthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		809	1	12/19/13 13:00	12/20/13 20:03	59-50-7	
4-Chloroaniline	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	108-60-1	
2-Chloronaphthalene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	91-58-7	
2-Chlorophenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	7005-72-3	
Chrysene	<b>768</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	53-70-3	
Dibenzofuran	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	91-94-1	
2,4-Dichlorophenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	120-83-2	
Diethylphthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	84-66-2	
2,4-Dimethylphenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	105-67-9	
Dimethylphthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	131-11-3	
Di-n-butylphthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		809	1	12/19/13 13:00	12/20/13 20:03	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	606-20-2	
Di-n-octylphthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	117-81-7	
Fluoranthene	<b>1790</b> ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	206-44-0	
Fluorene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	87-68-3	
Hexachlorobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	77-47-4	
Hexachloroethane	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-13-1**      Lab ID: **92184006010**      Collected: 12/17/13 10:15      Received: 12/19/13 11:15      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		405	1	12/19/13 13:00	12/20/13 20:03	78-59-1	
1-Methylnaphthalene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	90-12-0	
2-Methylnaphthalene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03		
Naphthalene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	91-20-3	
2-Nitroaniline	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	88-74-4	
3-Nitroaniline	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	99-09-2	
4-Nitroaniline	ND ug/kg		809	1	12/19/13 13:00	12/20/13 20:03	100-01-6	
Nitrobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	98-95-3	
2-Nitrophenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	88-75-5	
4-Nitrophenol	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	86-30-6	
Pentachlorophenol	ND ug/kg		2020	1	12/19/13 13:00	12/20/13 20:03	87-86-5	
Phenanthrene	1190 ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	85-01-8	
Phenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	108-95-2	
Pyrene	1180 ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		405	1	12/19/13 13:00	12/20/13 20:03	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	55 %		23-110	1	12/19/13 13:00	12/20/13 20:03	4165-60-0	
2-Fluorobiphenyl (S)	53 %		30-110	1	12/19/13 13:00	12/20/13 20:03	321-60-8	
Terphenyl-d14 (S)	61 %		28-110	1	12/19/13 13:00	12/20/13 20:03	1718-51-0	
Phenol-d6 (S)	62 %		22-110	1	12/19/13 13:00	12/20/13 20:03	13127-88-3	
2-Fluorophenol (S)	56 %		13-110	1	12/19/13 13:00	12/20/13 20:03	367-12-4	
2,4,6-Tribromophenol (S)	65 %		27-110	1	12/19/13 13:00	12/20/13 20:03	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		92.2	1		12/21/13 18:29	67-64-1	
Benzene	ND ug/kg		4.6	1		12/21/13 18:29	71-43-2	
Bromobenzene	ND ug/kg		4.6	1		12/21/13 18:29	108-86-1	
Bromochloromethane	ND ug/kg		4.6	1		12/21/13 18:29	74-97-5	
Bromodichloromethane	ND ug/kg		4.6	1		12/21/13 18:29	75-27-4	
Bromoform	ND ug/kg		4.6	1		12/21/13 18:29	75-25-2	
Bromomethane	ND ug/kg		9.2	1		12/21/13 18:29	74-83-9	
2-Butanone (MEK)	ND ug/kg		92.2	1		12/21/13 18:29	78-93-3	
n-Butylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	104-51-8	
sec-Butylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	135-98-8	
tert-Butylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	98-06-6	
Carbon tetrachloride	ND ug/kg		4.6	1		12/21/13 18:29	56-23-5	
Chlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	108-90-7	
Chloroethane	ND ug/kg		9.2	1		12/21/13 18:29	75-00-3	
Chloroform	99.9 ug/kg		4.6	1		12/21/13 18:29	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-13-1      Lab ID: 92184006010      Collected: 12/17/13 10:15      Received: 12/19/13 11:15      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		12/21/13 18:29	74-87-3	
2-Chlorotoluene	ND ug/kg		4.6	1		12/21/13 18:29	95-49-8	
4-Chlorotoluene	ND ug/kg		4.6	1		12/21/13 18:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.6	1		12/21/13 18:29	96-12-8	
Dibromochloromethane	ND ug/kg		4.6	1		12/21/13 18:29	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.6	1		12/21/13 18:29	106-93-4	
Dibromomethane	ND ug/kg		4.6	1		12/21/13 18:29	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.2	1		12/21/13 18:29	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.6	1		12/21/13 18:29	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.6	1		12/21/13 18:29	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.6	1		12/21/13 18:29	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.6	1		12/21/13 18:29	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.6	1		12/21/13 18:29	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.6	1		12/21/13 18:29	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.6	1		12/21/13 18:29	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.6	1		12/21/13 18:29	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.6	1		12/21/13 18:29	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.6	1		12/21/13 18:29	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.6	1		12/21/13 18:29	10061-02-6	
Diisopropyl ether	ND ug/kg		4.6	1		12/21/13 18:29	108-20-3	
Ethylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.6	1		12/21/13 18:29	87-68-3	
2-Hexanone	ND ug/kg		46.1	1		12/21/13 18:29	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.6	1		12/21/13 18:29	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.6	1		12/21/13 18:29	99-87-6	
Methylene Chloride	ND ug/kg		18.4	1		12/21/13 18:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		46.1	1		12/21/13 18:29	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.6	1		12/21/13 18:29	1634-04-4	
Naphthalene	ND ug/kg		4.6	1		12/21/13 18:29	91-20-3	
n-Propylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	103-65-1	
Styrene	ND ug/kg		4.6	1		12/21/13 18:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.6	1		12/21/13 18:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.6	1		12/21/13 18:29	79-34-5	
Tetrachloroethene	ND ug/kg		4.6	1		12/21/13 18:29	127-18-4	
Toluene	ND ug/kg		4.6	1		12/21/13 18:29	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.6	1		12/21/13 18:29	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.6	1		12/21/13 18:29	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.6	1		12/21/13 18:29	79-00-5	
Trichloroethene	ND ug/kg		4.6	1		12/21/13 18:29	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.6	1		12/21/13 18:29	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.6	1		12/21/13 18:29	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.6	1		12/21/13 18:29	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-13-1** Lab ID: **92184006010** Collected: 12/17/13 10:15 Received: 12/19/13 11:15 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		12/21/13 18:29	108-67-8	
Vinyl acetate	ND ug/kg		46.1	1		12/21/13 18:29	108-05-4	
Vinyl chloride	ND ug/kg		9.2	1		12/21/13 18:29	75-01-4	
Xylene (Total)	ND ug/kg		9.2	1		12/21/13 18:29	1330-20-7	
m&p-Xylene	ND ug/kg		9.2	1		12/21/13 18:29	179601-23-1	
o-Xylene	ND ug/kg		4.6	1		12/21/13 18:29	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	107 %		70-130	1		12/21/13 18:29	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		12/21/13 18:29	460-00-4	
1,2-Dichloroethane-d4 (S)	82 %		70-132	1		12/21/13 18:29	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>18.4 %</b>		0.10	1		12/20/13 08:44		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-13-2**      Lab ID: 92184006011      Collected: 12/17/13 10:45      Received: 12/19/13 11:15      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		439	1	12/19/13 13:00	12/20/13 20:30	83-32-9	
Acenaphthylene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	208-96-8	
Aniline	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	62-53-3	
Anthracene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	120-12-7	
Benzo(a)anthracene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	56-55-3	
Benzo(a)pyrene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	207-08-9	
Benzoic Acid	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	65-85-0	
Benzyl alcohol	ND ug/kg		877	1	12/19/13 13:00	12/20/13 20:30	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	101-55-3	
Butylbenzylphthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		877	1	12/19/13 13:00	12/20/13 20:30	59-50-7	
4-Chloroaniline	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	108-60-1	
2-Chloronaphthalene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	91-58-7	
2-Chlorophenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	7005-72-3	
Chrysene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	53-70-3	
Dibenzofuran	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	91-94-1	
2,4-Dichlorophenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	120-83-2	
Diethylphthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	84-66-2	
2,4-Dimethylphenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	105-67-9	
Dimethylphthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	131-11-3	
Di-n-butylphthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		877	1	12/19/13 13:00	12/20/13 20:30	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	606-20-2	
Di-n-octylphthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	117-81-7	
Fluoranthene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	206-44-0	
Fluorene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	87-68-3	
Hexachlorobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	77-47-4	
Hexachloroethane	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-13-2** Lab ID: 92184006011 Collected: 12/17/13 10:45 Received: 12/19/13 11:15 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		439	1	12/19/13 13:00	12/20/13 20:30	78-59-1	
1-Methylnaphthalene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	90-12-0	
2-Methylnaphthalene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30		
Naphthalene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	91-20-3	
2-Nitroaniline	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	88-74-4	
3-Nitroaniline	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	99-09-2	
4-Nitroaniline	ND ug/kg		877	1	12/19/13 13:00	12/20/13 20:30	100-01-6	
Nitrobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	98-95-3	
2-Nitrophenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	88-75-5	
4-Nitrophenol	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	86-30-6	
Pentachlorophenol	ND ug/kg		2190	1	12/19/13 13:00	12/20/13 20:30	87-86-5	
Phenanthrene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	85-01-8	
Phenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	108-95-2	
Pyrene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		439	1	12/19/13 13:00	12/20/13 20:30	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	72 %		23-110	1	12/19/13 13:00	12/20/13 20:30	4165-60-0	
2-Fluorobiphenyl (S)	70 %		30-110	1	12/19/13 13:00	12/20/13 20:30	321-60-8	
Terphenyl-d14 (S)	75 %		28-110	1	12/19/13 13:00	12/20/13 20:30	1718-51-0	
Phenol-d6 (S)	58 %		22-110	1	12/19/13 13:00	12/20/13 20:30	13127-88-3	
2-Fluorophenol (S)	54 %		13-110	1	12/19/13 13:00	12/20/13 20:30	367-12-4	
2,4,6-Tribromophenol (S)	61 %		27-110	1	12/19/13 13:00	12/20/13 20:30	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		96.7	1		12/21/13 18:49	67-64-1	
Benzene	ND ug/kg		4.8	1		12/21/13 18:49	71-43-2	
Bromobenzene	ND ug/kg		4.8	1		12/21/13 18:49	108-86-1	
Bromochloromethane	ND ug/kg		4.8	1		12/21/13 18:49	74-97-5	
Bromodichloromethane	ND ug/kg		4.8	1		12/21/13 18:49	75-27-4	
Bromoform	ND ug/kg		4.8	1		12/21/13 18:49	75-25-2	
Bromomethane	ND ug/kg		9.7	1		12/21/13 18:49	74-83-9	
2-Butanone (MEK)	ND ug/kg		96.7	1		12/21/13 18:49	78-93-3	
n-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	104-51-8	
sec-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	135-98-8	
tert-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	98-06-6	
Carbon tetrachloride	ND ug/kg		4.8	1		12/21/13 18:49	56-23-5	
Chlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	108-90-7	
Chloroethane	ND ug/kg		9.7	1		12/21/13 18:49	75-00-3	
Chloroform	8.2 ug/kg		4.8	1		12/21/13 18:49	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-13-2**      Lab ID: 92184006011      Collected: 12/17/13 10:45      Received: 12/19/13 11:15      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		9.7	1		12/21/13 18:49	74-87-3	
2-Chlorotoluene	ND ug/kg		4.8	1		12/21/13 18:49	95-49-8	
4-Chlorotoluene	ND ug/kg		4.8	1		12/21/13 18:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.8	1		12/21/13 18:49	96-12-8	
Dibromochloromethane	ND ug/kg		4.8	1		12/21/13 18:49	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.8	1		12/21/13 18:49	106-93-4	
Dibromomethane	ND ug/kg		4.8	1		12/21/13 18:49	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.7	1		12/21/13 18:49	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.8	1		12/21/13 18:49	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.8	1		12/21/13 18:49	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:49	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:49	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:49	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:49	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:49	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:49	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:49	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:49	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:49	10061-02-6	
Diisopropyl ether	ND ug/kg		4.8	1		12/21/13 18:49	108-20-3	
Ethylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.8	1		12/21/13 18:49	87-68-3	
2-Hexanone	ND ug/kg		48.4	1		12/21/13 18:49	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.8	1		12/21/13 18:49	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.8	1		12/21/13 18:49	99-87-6	
Methylene Chloride	ND ug/kg		19.3	1		12/21/13 18:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		48.4	1		12/21/13 18:49	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.8	1		12/21/13 18:49	1634-04-4	
Naphthalene	ND ug/kg		4.8	1		12/21/13 18:49	91-20-3	
n-Propylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	103-65-1	
Styrene	ND ug/kg		4.8	1		12/21/13 18:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.8	1		12/21/13 18:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.8	1		12/21/13 18:49	79-34-5	
Tetrachloroethene	ND ug/kg		4.8	1		12/21/13 18:49	127-18-4	
Toluene	ND ug/kg		4.8	1		12/21/13 18:49	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:49	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.8	1		12/21/13 18:49	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.8	1		12/21/13 18:49	79-00-5	
Trichloroethene	ND ug/kg		4.8	1		12/21/13 18:49	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.8	1		12/21/13 18:49	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.8	1		12/21/13 18:49	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.8	1		12/21/13 18:49	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-13-2 Lab ID: 92184006011 Collected: 12/17/13 10:45 Received: 12/19/13 11:15 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		4.8	1		12/21/13 18:49	108-67-8	
Vinyl acetate	ND ug/kg		48.4	1		12/21/13 18:49	108-05-4	
Vinyl chloride	ND ug/kg		9.7	1		12/21/13 18:49	75-01-4	
Xylene (Total)	ND ug/kg		9.7	1		12/21/13 18:49	1330-20-7	
m&p-Xylene	ND ug/kg		9.7	1		12/21/13 18:49	179601-23-1	
o-Xylene	ND ug/kg		4.8	1		12/21/13 18:49	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	105 %		70-130	1		12/21/13 18:49	2037-26-5	
4-Bromofluorobenzene (S)	103 %		70-130	1		12/21/13 18:49	460-00-4	
1,2-Dichloroethane-d4 (S)	76 %		70-132	1		12/21/13 18:49	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	24.7 %		0.10	1		12/20/13 08:44		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-15-1**      Lab ID: **92184006012**      Collected: 12/17/13 11:10      Received: 12/19/13 11:15      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		409	1	12/19/13 13:00	12/20/13 20:57	83-32-9	
Acenaphthylene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	208-96-8	
Aniline	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	62-53-3	
Anthracene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	120-12-7	
Benzo(a)anthracene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	56-55-3	
Benzo(a)pyrene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	207-08-9	
Benzoic Acid	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	65-85-0	
Benzyl alcohol	ND ug/kg		818	1	12/19/13 13:00	12/20/13 20:57	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	101-55-3	
Butylbenzylphthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		818	1	12/19/13 13:00	12/20/13 20:57	59-50-7	
4-Chloroaniline	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	108-60-1	
2-Chloronaphthalene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	91-58-7	
2-Chlorophenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	7005-72-3	
Chrysene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	53-70-3	
Dibenzofuran	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	91-94-1	
2,4-Dichlorophenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	120-83-2	
Diethylphthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	84-66-2	
2,4-Dimethylphenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	105-67-9	
Dimethylphthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	131-11-3	
Di-n-butylphthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		818	1	12/19/13 13:00	12/20/13 20:57	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	606-20-2	
Di-n-octylphthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	117-81-7	
Fluoranthene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	206-44-0	
Fluorene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	87-68-3	
Hexachlorobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	77-47-4	
Hexachloroethane	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-15-1**      Lab ID: **92184006012**      Collected: 12/17/13 11:10      Received: 12/19/13 11:15      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		409	1	12/19/13 13:00	12/20/13 20:57	78-59-1	
1-Methylnaphthalene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	90-12-0	
2-Methylnaphthalene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57		
Naphthalene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	91-20-3	
2-Nitroaniline	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	88-74-4	
3-Nitroaniline	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	99-09-2	
4-Nitroaniline	ND ug/kg		818	1	12/19/13 13:00	12/20/13 20:57	100-01-6	
Nitrobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	98-95-3	
2-Nitrophenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	88-75-5	
4-Nitrophenol	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	86-30-6	
Pentachlorophenol	ND ug/kg		2040	1	12/19/13 13:00	12/20/13 20:57	87-86-5	
Phenanthrene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	85-01-8	
Phenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	108-95-2	
Pyrene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		409	1	12/19/13 13:00	12/20/13 20:57	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	60 %		23-110	1	12/19/13 13:00	12/20/13 20:57	4165-60-0	
2-Fluorobiphenyl (S)	62 %		30-110	1	12/19/13 13:00	12/20/13 20:57	321-60-8	
Terphenyl-d14 (S)	71 %		28-110	1	12/19/13 13:00	12/20/13 20:57	1718-51-0	
Phenol-d6 (S)	64 %		22-110	1	12/19/13 13:00	12/20/13 20:57	13127-88-3	
2-Fluorophenol (S)	59 %		13-110	1	12/19/13 13:00	12/20/13 20:57	367-12-4	
2,4,6-Tribromophenol (S)	68 %		27-110	1	12/19/13 13:00	12/20/13 20:57	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		89.4	1		12/21/13 17:54	67-64-1	
Benzene	ND ug/kg		4.5	1		12/21/13 17:54	71-43-2	
Bromobenzene	ND ug/kg		4.5	1		12/21/13 17:54	108-86-1	
Bromochloromethane	ND ug/kg		4.5	1		12/21/13 17:54	74-97-5	
Bromodichloromethane	ND ug/kg		4.5	1		12/21/13 17:54	75-27-4	
Bromoform	ND ug/kg		4.5	1		12/21/13 17:54	75-25-2	
Bromomethane	ND ug/kg		8.9	1		12/21/13 17:54	74-83-9	
2-Butanone (MEK)	ND ug/kg		89.4	1		12/21/13 17:54	78-93-3	
n-Butylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	104-51-8	
sec-Butylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	135-98-8	
tert-Butylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	98-06-6	
Carbon tetrachloride	ND ug/kg		4.5	1		12/21/13 17:54	56-23-5	
Chlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	108-90-7	
Chloroethane	ND ug/kg		8.9	1		12/21/13 17:54	75-00-3	
Chloroform	ND ug/kg		4.5	1		12/21/13 17:54	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-15-1                          Lab ID: 92184006012                  Collected: 12/17/13 11:10                  Received: 12/19/13 11:15                  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		8.9	1		12/21/13 17:54	74-87-3	
2-Chlorotoluene	ND ug/kg		4.5	1		12/21/13 17:54	95-49-8	
4-Chlorotoluene	ND ug/kg		4.5	1		12/21/13 17:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.5	1		12/21/13 17:54	96-12-8	
Dibromochloromethane	ND ug/kg		4.5	1		12/21/13 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.5	1		12/21/13 17:54	106-93-4	
Dibromomethane	ND ug/kg		4.5	1		12/21/13 17:54	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.9	1		12/21/13 17:54	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.5	1		12/21/13 17:54	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.5	1		12/21/13 17:54	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.5	1		12/21/13 17:54	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.5	1		12/21/13 17:54	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.5	1		12/21/13 17:54	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.5	1		12/21/13 17:54	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.5	1		12/21/13 17:54	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.5	1		12/21/13 17:54	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.5	1		12/21/13 17:54	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.5	1		12/21/13 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.5	1		12/21/13 17:54	10061-02-6	
Diisopropyl ether	ND ug/kg		4.5	1		12/21/13 17:54	108-20-3	
Ethylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.5	1		12/21/13 17:54	87-68-3	
2-Hexanone	ND ug/kg		44.7	1		12/21/13 17:54	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.5	1		12/21/13 17:54	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.5	1		12/21/13 17:54	99-87-6	
Methylene Chloride	ND ug/kg		17.9	1		12/21/13 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		44.7	1		12/21/13 17:54	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.5	1		12/21/13 17:54	1634-04-4	
Naphthalene	ND ug/kg		4.5	1		12/21/13 17:54	91-20-3	
n-Propylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	103-65-1	
Styrene	ND ug/kg		4.5	1		12/21/13 17:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.5	1		12/21/13 17:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.5	1		12/21/13 17:54	79-34-5	
Tetrachloroethene	ND ug/kg		4.5	1		12/21/13 17:54	127-18-4	
Toluene	ND ug/kg		4.5	1		12/21/13 17:54	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.5	1		12/21/13 17:54	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.5	1		12/21/13 17:54	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.5	1		12/21/13 17:54	79-00-5	
Trichloroethene	ND ug/kg		4.5	1		12/21/13 17:54	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.5	1		12/21/13 17:54	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.5	1		12/21/13 17:54	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.5	1		12/21/13 17:54	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-15-1** Lab ID: **92184006012** Collected: 12/17/13 11:10 Received: 12/19/13 11:15 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		12/21/13 17:54	108-67-8	
Vinyl acetate	ND ug/kg		44.7	1		12/21/13 17:54	108-05-4	
Vinyl chloride	ND ug/kg		8.9	1		12/21/13 17:54	75-01-4	
Xylene (Total)	ND ug/kg		8.9	1		12/21/13 17:54	1330-20-7	
m&p-Xylene	ND ug/kg		8.9	1		12/21/13 17:54	179601-23-1	
o-Xylene	ND ug/kg		4.5	1		12/21/13 17:54	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/21/13 17:54	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		12/21/13 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		70-132	1		12/21/13 17:54	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	19.3 %		0.10	1		12/20/13 08:44		

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-1** Lab ID: **92184006013** Collected: 12/17/13 11:55 Received: 12/19/13 11:15 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		6.8	1	12/19/13 12:58	12/21/13 02:13	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	83 %		41-119	1	12/19/13 12:58	12/21/13 02:13	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		7.2	1	12/28/13 09:55	12/28/13 19:54	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	102 %		70-167	1	12/28/13 09:55	12/28/13 19:54	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>26.3 %</b>		0.10	1			12/20/13 08:45	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-2** Lab ID: **92184006014** Collected: 12/17/13 12:30 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND mg/kg		5.7	1	12/19/13 12:58	12/21/13 02:13	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	68 %		41-119	1	12/19/13 12:58	12/21/13 02:13	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	12/30/13 11:17	12/31/13 08:17	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100 %		70-167	1	12/30/13 11:17	12/31/13 08:17	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>12.6 %</b>		0.10	1			12/20/13 08:45	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-4** Lab ID: **92184006015** Collected: 12/17/13 12:45 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546						
Diesel Components	ND mg/kg		5.5	1	12/19/13 12:58	12/21/13 02:36	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	62 %		41-119	1	12/19/13 12:58	12/21/13 02:36	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND mg/kg		5.7	1	12/30/13 11:17	12/31/13 09:26	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	108 %		70-167	1	12/30/13 11:17	12/31/13 09:26	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	9.6 %		0.10	1		12/20/13 08:45		

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-3** Lab ID: **92184006016** Collected: 12/17/13 13:10 Received: 12/19/13 11:15 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	7.5 mg/kg		6.1	1	12/19/13 12:58	12/21/13 02:36	68334-30-5	
<b>Surrogates</b> n-Pentacosane (S)								
	64 %		41-119	1	12/19/13 12:58	12/21/13 02:36	629-99-2	
<b>Gasoline Range Organics</b> Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B								
Gasoline Range Organics	ND mg/kg		5.6	1	12/30/13 11:17	12/31/13 10:34	8006-61-9	
<b>Surrogates</b> 4-Bromofluorobenzene (S)								
	104 %		70-167	1	12/30/13 11:17	12/31/13 10:34	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	17.8 %		0.10	1		12/20/13 08:45		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-5**      Lab ID: **92184006017**      Collected: 12/17/13 15:09      Received: 12/19/13 11:15      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		375	1	12/19/13 13:00	12/20/13 21:24	83-32-9	
Acenaphthylene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	208-96-8	
Aniline	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	62-53-3	
Anthracene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	120-12-7	
Benzo(a)anthracene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	56-55-3	
Benzo(a)pyrene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	207-08-9	
Benzoic Acid	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	65-85-0	
Benzyl alcohol	ND ug/kg		750	1	12/19/13 13:00	12/20/13 21:24	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	101-55-3	
Butylbenzylphthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		750	1	12/19/13 13:00	12/20/13 21:24	59-50-7	
4-Chloroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	108-60-1	
2-Chloronaphthalene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	91-58-7	
2-Chlorophenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	7005-72-3	
Chrysene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	53-70-3	
Dibenzofuran	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	91-94-1	
2,4-Dichlorophenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	120-83-2	
Diethylphthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	84-66-2	
2,4-Dimethylphenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	105-67-9	
Dimethylphthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	131-11-3	
Di-n-butylphthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		750	1	12/19/13 13:00	12/20/13 21:24	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	606-20-2	
Di-n-octylphthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	117-81-7	
Fluoranthene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	206-44-0	
Fluorene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	87-68-3	
Hexachlorobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	77-47-4	
Hexachloroethane	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-5** Lab ID: 92184006017 Collected: 12/17/13 15:09 Received: 12/19/13 11:15 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		375	1	12/19/13 13:00	12/20/13 21:24	78-59-1	
1-Methylnaphthalene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	90-12-0	
2-Methylnaphthalene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24		
Naphthalene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	91-20-3	
2-Nitroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	88-74-4	
3-Nitroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	99-09-2	
4-Nitroaniline	ND ug/kg		750	1	12/19/13 13:00	12/20/13 21:24	100-01-6	
Nitrobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	98-95-3	
2-Nitrophenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	88-75-5	
4-Nitrophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	86-30-6	
Pentachlorophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:24	87-86-5	
Phenanthrene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	85-01-8	
Phenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	108-95-2	
Pyrene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		375	1	12/19/13 13:00	12/20/13 21:24	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	64 %		23-110	1	12/19/13 13:00	12/20/13 21:24	4165-60-0	
2-Fluorobiphenyl (S)	70 %		30-110	1	12/19/13 13:00	12/20/13 21:24	321-60-8	
Terphenyl-d14 (S)	74 %		28-110	1	12/19/13 13:00	12/20/13 21:24	1718-51-0	
Phenol-d6 (S)	73 %		22-110	1	12/19/13 13:00	12/20/13 21:24	13127-88-3	
2-Fluorophenol (S)	62 %		13-110	1	12/19/13 13:00	12/20/13 21:24	367-12-4	
2,4,6-Tribromophenol (S)	67 %		27-110	1	12/19/13 13:00	12/20/13 21:24	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		86.3	1		12/21/13 18:13	67-64-1	
Benzene	ND ug/kg		4.3	1		12/21/13 18:13	71-43-2	
Bromobenzene	ND ug/kg		4.3	1		12/21/13 18:13	108-86-1	
Bromochloromethane	ND ug/kg		4.3	1		12/21/13 18:13	74-97-5	
Bromodichloromethane	ND ug/kg		4.3	1		12/21/13 18:13	75-27-4	
Bromoform	ND ug/kg		4.3	1		12/21/13 18:13	75-25-2	
Bromomethane	ND ug/kg		8.6	1		12/21/13 18:13	74-83-9	
2-Butanone (MEK)	ND ug/kg		86.3	1		12/21/13 18:13	78-93-3	
n-Butylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	104-51-8	
sec-Butylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	135-98-8	
tert-Butylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	98-06-6	
Carbon tetrachloride	ND ug/kg		4.3	1		12/21/13 18:13	56-23-5	
Chlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	108-90-7	
Chloroethane	ND ug/kg		8.6	1		12/21/13 18:13	75-00-3	
Chloroform	ND ug/kg		4.3	1		12/21/13 18:13	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-5      Lab ID: 92184006017      Collected: 12/17/13 15:09      Received: 12/19/13 11:15      Matrix: Solid**
*Results reported on a "dry-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Chloromethane	ND ug/kg		8.6	1		12/21/13 18:13	74-87-3	
2-Chlorotoluene	ND ug/kg		4.3	1		12/21/13 18:13	95-49-8	
4-Chlorotoluene	ND ug/kg		4.3	1		12/21/13 18:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.3	1		12/21/13 18:13	96-12-8	
Dibromochloromethane	ND ug/kg		4.3	1		12/21/13 18:13	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.3	1		12/21/13 18:13	106-93-4	
Dibromomethane	ND ug/kg		4.3	1		12/21/13 18:13	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.6	1		12/21/13 18:13	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.3	1		12/21/13 18:13	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.3	1		12/21/13 18:13	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.3	1		12/21/13 18:13	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.3	1		12/21/13 18:13	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.3	1		12/21/13 18:13	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.3	1		12/21/13 18:13	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.3	1		12/21/13 18:13	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.3	1		12/21/13 18:13	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.3	1		12/21/13 18:13	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.3	1		12/21/13 18:13	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.3	1		12/21/13 18:13	10061-02-6	
Diisopropyl ether	ND ug/kg		4.3	1		12/21/13 18:13	108-20-3	
Ethylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.3	1		12/21/13 18:13	87-68-3	
2-Hexanone	ND ug/kg		43.2	1		12/21/13 18:13	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.3	1		12/21/13 18:13	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.3	1		12/21/13 18:13	99-87-6	
Methylene Chloride	ND ug/kg		17.3	1		12/21/13 18:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		43.2	1		12/21/13 18:13	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.3	1		12/21/13 18:13	1634-04-4	
Naphthalene	ND ug/kg		4.3	1		12/21/13 18:13	91-20-3	
n-Propylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	103-65-1	
Styrene	ND ug/kg		4.3	1		12/21/13 18:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.3	1		12/21/13 18:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.3	1		12/21/13 18:13	79-34-5	
Tetrachloroethene	ND ug/kg		4.3	1		12/21/13 18:13	127-18-4	
Toluene	ND ug/kg		4.3	1		12/21/13 18:13	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.3	1		12/21/13 18:13	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.3	1		12/21/13 18:13	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.3	1		12/21/13 18:13	79-00-5	
Trichloroethene	ND ug/kg		4.3	1		12/21/13 18:13	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.3	1		12/21/13 18:13	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.3	1		12/21/13 18:13	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-5 Lab ID: 92184006017 Collected: 12/17/13 15:09 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>	Analytical Method: EPA 8260							
1,3,5-Trimethylbenzene	ND ug/kg		4.3	1		12/21/13 18:13	108-67-8	
Vinyl acetate	ND ug/kg		43.2	1		12/21/13 18:13	108-05-4	
Vinyl chloride	ND ug/kg		8.6	1		12/21/13 18:13	75-01-4	
Xylene (Total)	ND ug/kg		8.6	1		12/21/13 18:13	1330-20-7	
m&p-Xylene	ND ug/kg		8.6	1		12/21/13 18:13	179601-23-1	
o-Xylene	ND ug/kg		4.3	1		12/21/13 18:13	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/21/13 18:13	2037-26-5	
4-Bromofluorobenzene (S)	95 %		70-130	1		12/21/13 18:13	460-00-4	
1,2-Dichloroethane-d4 (S)	115 %		70-132	1		12/21/13 18:13	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>12.0 %</b>		0.10	1		12/20/13 08:45		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-12-6**      Lab ID: **92184006018**      Collected: 12/17/13 15:40      Received: 12/19/13 11:15      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		373	1	12/19/13 13:00	12/20/13 21:50	83-32-9	
Acenaphthylene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	208-96-8	
Aniline	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	62-53-3	
Anthracene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	120-12-7	
Benzo(a)anthracene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	56-55-3	
Benzo(a)pyrene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	207-08-9	
Benzoic Acid	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	65-85-0	
Benzyl alcohol	ND ug/kg		747	1	12/19/13 13:00	12/20/13 21:50	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	101-55-3	
Butylbenzylphthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		747	1	12/19/13 13:00	12/20/13 21:50	59-50-7	
4-Chloroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	108-60-1	
2-Chloronaphthalene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	91-58-7	
2-Chlorophenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	7005-72-3	
Chrysene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	53-70-3	
Dibenzofuran	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	91-94-1	
2,4-Dichlorophenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	120-83-2	
Diethylphthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	84-66-2	
2,4-Dimethylphenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	105-67-9	
Dimethylphthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	131-11-3	
Di-n-butylphthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		747	1	12/19/13 13:00	12/20/13 21:50	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	606-20-2	
Di-n-octylphthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	117-81-7	
Fluoranthene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	206-44-0	
Fluorene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	87-68-3	
Hexachlorobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	77-47-4	
Hexachloroethane	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-6** Lab ID: **92184006018** Collected: 12/17/13 15:40 Received: 12/19/13 11:15 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		373	1	12/19/13 13:00	12/20/13 21:50	78-59-1	
1-Methylnaphthalene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	90-12-0	
2-Methylnaphthalene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50		
Naphthalene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	91-20-3	
2-Nitroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	88-74-4	
3-Nitroaniline	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	99-09-2	
4-Nitroaniline	ND ug/kg		747	1	12/19/13 13:00	12/20/13 21:50	100-01-6	
Nitrobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	98-95-3	
2-Nitrophenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	88-75-5	
4-Nitrophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	86-30-6	
Pentachlorophenol	ND ug/kg		1870	1	12/19/13 13:00	12/20/13 21:50	87-86-5	
Phenanthrene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	85-01-8	
Phenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	108-95-2	
Pyrene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		373	1	12/19/13 13:00	12/20/13 21:50	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	42 %		23-110	1	12/19/13 13:00	12/20/13 21:50	4165-60-0	
2-Fluorobiphenyl (S)	43 %		30-110	1	12/19/13 13:00	12/20/13 21:50	321-60-8	
Terphenyl-d14 (S)	59 %		28-110	1	12/19/13 13:00	12/20/13 21:50	1718-51-0	
Phenol-d6 (S)	54 %		22-110	1	12/19/13 13:00	12/20/13 21:50	13127-88-3	
2-Fluorophenol (S)	44 %		13-110	1	12/19/13 13:00	12/20/13 21:50	367-12-4	
2,4,6-Tribromophenol (S)	56 %		27-110	1	12/19/13 13:00	12/20/13 21:50	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	120 ug/kg		96.0	1		12/21/13 18:33	67-64-1	A+
Benzene	ND ug/kg		4.8	1		12/21/13 18:33	71-43-2	
Bromobenzene	ND ug/kg		4.8	1		12/21/13 18:33	108-86-1	
Bromochloromethane	ND ug/kg		4.8	1		12/21/13 18:33	74-97-5	
Bromodichloromethane	ND ug/kg		4.8	1		12/21/13 18:33	75-27-4	
Bromoform	ND ug/kg		4.8	1		12/21/13 18:33	75-25-2	
Bromomethane	ND ug/kg		9.6	1		12/21/13 18:33	74-83-9	
2-Butanone (MEK)	ND ug/kg		96.0	1		12/21/13 18:33	78-93-3	
n-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	104-51-8	
sec-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	135-98-8	
tert-Butylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	98-06-6	
Carbon tetrachloride	ND ug/kg		4.8	1		12/21/13 18:33	56-23-5	
Chlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	108-90-7	
Chloroethane	ND ug/kg		9.6	1		12/21/13 18:33	75-00-3	
Chloroform	ND ug/kg		4.8	1		12/21/13 18:33	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-12-6**      Lab ID: **92184006018**      Collected: 12/17/13 15:40      Received: 12/19/13 11:15      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		9.6	1		12/21/13 18:33	74-87-3	
2-Chlorotoluene	ND ug/kg		4.8	1		12/21/13 18:33	95-49-8	
4-Chlorotoluene	ND ug/kg		4.8	1		12/21/13 18:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.8	1		12/21/13 18:33	96-12-8	
Dibromochloromethane	ND ug/kg		4.8	1		12/21/13 18:33	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.8	1		12/21/13 18:33	106-93-4	
Dibromomethane	ND ug/kg		4.8	1		12/21/13 18:33	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.6	1		12/21/13 18:33	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.8	1		12/21/13 18:33	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.8	1		12/21/13 18:33	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:33	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:33	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.8	1		12/21/13 18:33	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:33	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:33	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.8	1		12/21/13 18:33	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:33	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:33	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.8	1		12/21/13 18:33	10061-02-6	
Diisopropyl ether	ND ug/kg		4.8	1		12/21/13 18:33	108-20-3	
Ethylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.8	1		12/21/13 18:33	87-68-3	
2-Hexanone	ND ug/kg		48.0	1		12/21/13 18:33	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.8	1		12/21/13 18:33	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.8	1		12/21/13 18:33	99-87-6	
Methylene Chloride	ND ug/kg		19.2	1		12/21/13 18:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		48.0	1		12/21/13 18:33	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.8	1		12/21/13 18:33	1634-04-4	
Naphthalene	ND ug/kg		4.8	1		12/21/13 18:33	91-20-3	
n-Propylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	103-65-1	
Styrene	ND ug/kg		4.8	1		12/21/13 18:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.8	1		12/21/13 18:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.8	1		12/21/13 18:33	79-34-5	
Tetrachloroethene	ND ug/kg		4.8	1		12/21/13 18:33	127-18-4	
Toluene	ND ug/kg		4.8	1		12/21/13 18:33	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.8	1		12/21/13 18:33	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.8	1		12/21/13 18:33	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.8	1		12/21/13 18:33	79-00-5	
Trichloroethene	ND ug/kg		4.8	1		12/21/13 18:33	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.8	1		12/21/13 18:33	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.8	1		12/21/13 18:33	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.8	1		12/21/13 18:33	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-6 Lab ID: 92184006018 Collected: 12/17/13 15:40 Received: 12/19/13 11:15 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		4.8	1		12/21/13 18:33	108-67-8	
Vinyl acetate	ND ug/kg		48.0	1		12/21/13 18:33	108-05-4	
Vinyl chloride	ND ug/kg		9.6	1		12/21/13 18:33	75-01-4	
Xylene (Total)	ND ug/kg		9.6	1		12/21/13 18:33	1330-20-7	
m&p-Xylene	ND ug/kg		9.6	1		12/21/13 18:33	179601-23-1	
o-Xylene	ND ug/kg		4.8	1		12/21/13 18:33	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	96 %		70-130	1		12/21/13 18:33	2037-26-5	
4-Bromofluorobenzene (S)	89 %		70-130	1		12/21/13 18:33	460-00-4	
1,2-Dichloroethane-d4 (S)	146 %		70-132	1		12/21/13 18:33	17060-07-0	S0
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	11.6 %		0.10	1		12/20/13 08:45		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-7** Lab ID: **92184006019** Collected: 12/17/13 15:55 Received: 12/19/13 11:15 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		391	1	12/19/13 13:00	12/20/13 22:17	83-32-9	
Acenaphthylene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	208-96-8	
Aniline	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	62-53-3	
Anthracene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	120-12-7	
Benzo(a)anthracene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	56-55-3	
Benzo(a)pyrene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	207-08-9	
Benzoic Acid	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	65-85-0	
Benzyl alcohol	ND ug/kg		782	1	12/19/13 13:00	12/20/13 22:17	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	101-55-3	
Butylbenzylphthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		782	1	12/19/13 13:00	12/20/13 22:17	59-50-7	
4-Chloroaniline	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	108-60-1	
2-Chloronaphthalene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	91-58-7	
2-Chlorophenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	7005-72-3	
Chrysene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	53-70-3	
Dibenzofuran	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	91-94-1	
2,4-Dichlorophenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	120-83-2	
Diethylphthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	84-66-2	
2,4-Dimethylphenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	105-67-9	
Dimethylphthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	131-11-3	
Di-n-butylphthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		782	1	12/19/13 13:00	12/20/13 22:17	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	606-20-2	
Di-n-octylphthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	117-81-7	
Fluoranthene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	206-44-0	
Fluorene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	87-68-3	
Hexachlorobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	77-47-4	
Hexachloroethane	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-7** Lab ID: **92184006019** Collected: 12/17/13 15:55 Received: 12/19/13 11:15 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		391	1	12/19/13 13:00	12/20/13 22:17	78-59-1	
1-Methylnaphthalene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	90-12-0	
2-Methylnaphthalene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17		
Naphthalene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	91-20-3	
2-Nitroaniline	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	88-74-4	
3-Nitroaniline	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	99-09-2	
4-Nitroaniline	ND ug/kg		782	1	12/19/13 13:00	12/20/13 22:17	100-01-6	
Nitrobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	98-95-3	
2-Nitrophenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	88-75-5	
4-Nitrophenol	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	86-30-6	
Pentachlorophenol	ND ug/kg		1950	1	12/19/13 13:00	12/20/13 22:17	87-86-5	
Phenanthrene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	85-01-8	
Phenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	108-95-2	
Pyrene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		391	1	12/19/13 13:00	12/20/13 22:17	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	61 %		23-110	1	12/19/13 13:00	12/20/13 22:17	4165-60-0	
2-Fluorobiphenyl (S)	66 %		30-110	1	12/19/13 13:00	12/20/13 22:17	321-60-8	
Terphenyl-d14 (S)	64 %		28-110	1	12/19/13 13:00	12/20/13 22:17	1718-51-0	
Phenol-d6 (S)	47 %		22-110	1	12/19/13 13:00	12/20/13 22:17	13127-88-3	
2-Fluorophenol (S)	43 %		13-110	1	12/19/13 13:00	12/20/13 22:17	367-12-4	
2,4,6-Tribromophenol (S)	42 %		27-110	1	12/19/13 13:00	12/20/13 22:17	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		94.0	1		12/21/13 18:53	67-64-1	
Benzene	ND ug/kg		4.7	1		12/21/13 18:53	71-43-2	
Bromobenzene	ND ug/kg		4.7	1		12/21/13 18:53	108-86-1	
Bromochloromethane	ND ug/kg		4.7	1		12/21/13 18:53	74-97-5	
Bromodichloromethane	ND ug/kg		4.7	1		12/21/13 18:53	75-27-4	
Bromoform	ND ug/kg		4.7	1		12/21/13 18:53	75-25-2	
Bromomethane	ND ug/kg		9.4	1		12/21/13 18:53	74-83-9	
2-Butanone (MEK)	ND ug/kg		94.0	1		12/21/13 18:53	78-93-3	
n-Butylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	104-51-8	
sec-Butylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	135-98-8	
tert-Butylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	98-06-6	
Carbon tetrachloride	ND ug/kg		4.7	1		12/21/13 18:53	56-23-5	
Chlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	108-90-7	
Chloroethane	ND ug/kg		9.4	1		12/21/13 18:53	75-00-3	
Chloroform	ND ug/kg		4.7	1		12/21/13 18:53	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-7 Lab ID: 92184006019 Collected: 12/17/13 15:55 Received: 12/19/13 11:15 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		12/21/13 18:53	74-87-3	
2-Chlorotoluene	ND ug/kg		4.7	1		12/21/13 18:53	95-49-8	
4-Chlorotoluene	ND ug/kg		4.7	1		12/21/13 18:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.7	1		12/21/13 18:53	96-12-8	
Dibromochloromethane	ND ug/kg		4.7	1		12/21/13 18:53	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.7	1		12/21/13 18:53	106-93-4	
Dibromomethane	ND ug/kg		4.7	1		12/21/13 18:53	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.4	1		12/21/13 18:53	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.7	1		12/21/13 18:53	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.7	1		12/21/13 18:53	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.7	1		12/21/13 18:53	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.7	1		12/21/13 18:53	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.7	1		12/21/13 18:53	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.7	1		12/21/13 18:53	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.7	1		12/21/13 18:53	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.7	1		12/21/13 18:53	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.7	1		12/21/13 18:53	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.7	1		12/21/13 18:53	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.7	1		12/21/13 18:53	10061-02-6	
Diisopropyl ether	ND ug/kg		4.7	1		12/21/13 18:53	108-20-3	
Ethylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.7	1		12/21/13 18:53	87-68-3	
2-Hexanone	ND ug/kg		47.0	1		12/21/13 18:53	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.7	1		12/21/13 18:53	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.7	1		12/21/13 18:53	99-87-6	
Methylene Chloride	ND ug/kg		18.8	1		12/21/13 18:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		47.0	1		12/21/13 18:53	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.7	1		12/21/13 18:53	1634-04-4	
Naphthalene	ND ug/kg		4.7	1		12/21/13 18:53	91-20-3	
n-Propylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	103-65-1	
Styrene	ND ug/kg		4.7	1		12/21/13 18:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.7	1		12/21/13 18:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.7	1		12/21/13 18:53	79-34-5	
Tetrachloroethene	ND ug/kg		4.7	1		12/21/13 18:53	127-18-4	
Toluene	ND ug/kg		4.7	1		12/21/13 18:53	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.7	1		12/21/13 18:53	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.7	1		12/21/13 18:53	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.7	1		12/21/13 18:53	79-00-5	
Trichloroethene	ND ug/kg		4.7	1		12/21/13 18:53	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.7	1		12/21/13 18:53	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.7	1		12/21/13 18:53	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.7	1		12/21/13 18:53	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-7 Lab ID: 92184006019 Collected: 12/17/13 15:55 Received: 12/19/13 11:15 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		12/21/13 18:53	108-67-8	
Vinyl acetate	ND ug/kg		47.0	1		12/21/13 18:53	108-05-4	
Vinyl chloride	ND ug/kg		9.4	1		12/21/13 18:53	75-01-4	
Xylene (Total)	ND ug/kg		9.4	1		12/21/13 18:53	1330-20-7	
m&p-Xylene	ND ug/kg		9.4	1		12/21/13 18:53	179601-23-1	
o-Xylene	ND ug/kg		4.7	1		12/21/13 18:53	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		12/21/13 18:53	2037-26-5	
4-Bromofluorobenzene (S)	97 %		70-130	1		12/21/13 18:53	460-00-4	
1,2-Dichloroethane-d4 (S)	122 %		70-132	1		12/21/13 18:53	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	15.6 %		0.10	1		12/20/13 17:06		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-8**      Lab ID: **92184006020**      Collected: 12/17/13 16:10      Received: 12/19/13 11:15      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		386	1	12/19/13 13:00	12/20/13 22:44	83-32-9	
Acenaphthylene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	208-96-8	
Aniline	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	62-53-3	
Anthracene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	120-12-7	
Benzo(a)anthracene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	56-55-3	
Benzo(a)pyrene	<b>403</b> ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	207-08-9	
Benzoic Acid	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	65-85-0	
Benzyl alcohol	ND ug/kg		773	1	12/19/13 13:00	12/20/13 22:44	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	101-55-3	
Butylbenzylphthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		773	1	12/19/13 13:00	12/20/13 22:44	59-50-7	
4-Chloroaniline	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	108-60-1	
2-Chloronaphthalene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	91-58-7	
2-Chlorophenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	7005-72-3	
Chrysene	<b>400</b> ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	53-70-3	
Dibenzofuran	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	91-94-1	
2,4-Dichlorophenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	120-83-2	
Diethylphthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	84-66-2	
2,4-Dimethylphenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	105-67-9	
Dimethylphthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	131-11-3	
Di-n-butylphthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		773	1	12/19/13 13:00	12/20/13 22:44	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	606-20-2	
Di-n-octylphthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	117-81-7	
Fluoranthene	<b>855</b> ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	206-44-0	
Fluorene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	87-68-3	
Hexachlorobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	77-47-4	
Hexachloroethane	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-8** Lab ID: **92184006020** Collected: 12/17/13 16:10 Received: 12/19/13 11:15 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		386	1	12/19/13 13:00	12/20/13 22:44	78-59-1	
1-Methylnaphthalene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	90-12-0	
2-Methylnaphthalene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44		
Naphthalene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	91-20-3	
2-Nitroaniline	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	88-74-4	
3-Nitroaniline	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	99-09-2	
4-Nitroaniline	ND ug/kg		773	1	12/19/13 13:00	12/20/13 22:44	100-01-6	
Nitrobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	98-95-3	
2-Nitrophenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	88-75-5	
4-Nitrophenol	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	86-30-6	
Pentachlorophenol	ND ug/kg		1930	1	12/19/13 13:00	12/20/13 22:44	87-86-5	
Phenanthrrene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	85-01-8	
Phenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	108-95-2	
Pyrene	511 ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		386	1	12/19/13 13:00	12/20/13 22:44	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	63 %		23-110	1	12/19/13 13:00	12/20/13 22:44	4165-60-0	
2-Fluorobiphenyl (S)	67 %		30-110	1	12/19/13 13:00	12/20/13 22:44	321-60-8	
Terphenyl-d14 (S)	57 %		28-110	1	12/19/13 13:00	12/20/13 22:44	1718-51-0	
Phenol-d6 (S)	77 %		22-110	1	12/19/13 13:00	12/20/13 22:44	13127-88-3	
2-Fluorophenol (S)	68 %		13-110	1	12/19/13 13:00	12/20/13 22:44	367-12-4	
2,4,6-Tribromophenol (S)	68 %		27-110	1	12/19/13 13:00	12/20/13 22:44	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	136 ug/kg		87.1	1				A+
Benzene	ND ug/kg		4.4	1	12/21/13 19:12	67-64-1		
Bromobenzene	ND ug/kg		4.4	1	12/21/13 19:12	71-43-2		
Bromochloromethane	ND ug/kg		4.4	1	12/21/13 19:12	108-86-1		
Bromodichloromethane	ND ug/kg		4.4	1	12/21/13 19:12	74-97-5		
Bromoform	ND ug/kg		4.4	1	12/21/13 19:12	75-27-4		
Bromomethane	ND ug/kg		8.7	1	12/21/13 19:12	75-25-2		
2-Butanone (MEK)	ND ug/kg		87.1	1	12/21/13 19:12	74-83-9		
n-Butylbenzene	ND ug/kg		4.4	1	12/21/13 19:12	104-51-8		
sec-Butylbenzene	ND ug/kg		4.4	1	12/21/13 19:12	135-98-8		
tert-Butylbenzene	ND ug/kg		4.4	1	12/21/13 19:12	98-06-6		
Carbon tetrachloride	ND ug/kg		4.4	1	12/21/13 19:12	56-23-5		
Chlorobenzene	ND ug/kg		4.4	1	12/21/13 19:12	108-90-7		
Chloroethane	ND ug/kg		8.7	1	12/21/13 19:12	75-00-3		
Chloroform	ND ug/kg		4.4	1	12/21/13 19:12	67-66-3		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-12-8**      Lab ID: **92184006020**      Collected: 12/17/13 16:10      Received: 12/19/13 11:15      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		8.7	1		12/21/13 19:12	74-87-3	
2-Chlorotoluene	ND ug/kg		4.4	1		12/21/13 19:12	95-49-8	
4-Chlorotoluene	ND ug/kg		4.4	1		12/21/13 19:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.4	1		12/21/13 19:12	96-12-8	
Dibromochloromethane	ND ug/kg		4.4	1		12/21/13 19:12	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.4	1		12/21/13 19:12	106-93-4	
Dibromomethane	ND ug/kg		4.4	1		12/21/13 19:12	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:12	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:12	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:12	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.7	1		12/21/13 19:12	75-71-8	1g
1,1-Dichloroethane	ND ug/kg		4.4	1		12/21/13 19:12	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.4	1		12/21/13 19:12	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:12	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:12	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:12	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:12	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:12	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:12	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:12	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:12	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:12	10061-02-6	
Diisopropyl ether	ND ug/kg		4.4	1		12/21/13 19:12	108-20-3	
Ethylbenzene	ND ug/kg		4.4	1		12/21/13 19:12	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.4	1		12/21/13 19:12	87-68-3	
2-Hexanone	ND ug/kg		43.5	1		12/21/13 19:12	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.4	1		12/21/13 19:12	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.4	1		12/21/13 19:12	99-87-6	
Methylene Chloride	ND ug/kg		17.4	1		12/21/13 19:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		43.5	1		12/21/13 19:12	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.4	1		12/21/13 19:12	1634-04-4	
Naphthalene	ND ug/kg		4.4	1		12/21/13 19:12	91-20-3	
n-Propylbenzene	ND ug/kg		4.4	1		12/21/13 19:12	103-65-1	
Styrene	ND ug/kg		4.4	1		12/21/13 19:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.4	1		12/21/13 19:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.4	1		12/21/13 19:12	79-34-5	
Tetrachloroethene	ND ug/kg		4.4	1		12/21/13 19:12	127-18-4	
Toluene	ND ug/kg		4.4	1		12/21/13 19:12	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:12	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:12	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.4	1		12/21/13 19:12	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.4	1		12/21/13 19:12	79-00-5	
Trichloroethene	ND ug/kg		4.4	1		12/21/13 19:12	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.4	1		12/21/13 19:12	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.4	1		12/21/13 19:12	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.4	1		12/21/13 19:12	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-8 Lab ID: 92184006020 Collected: 12/17/13 16:10 Received: 12/19/13 11:15 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		4.4	1		12/21/13 19:12	108-67-8	
Vinyl acetate	ND ug/kg		43.5	1		12/21/13 19:12	108-05-4	
Vinyl chloride	ND ug/kg		8.7	1		12/21/13 19:12	75-01-4	
Xylene (Total)	ND ug/kg		8.7	1		12/21/13 19:12	1330-20-7	
m&p-Xylene	ND ug/kg		8.7	1		12/21/13 19:12	179601-23-1	
o-Xylene	ND ug/kg		4.4	1		12/21/13 19:12	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	95 %		70-130	1		12/21/13 19:12	2037-26-5	
4-Bromofluorobenzene (S)	91 %		70-130	1		12/21/13 19:12	460-00-4	
1,2-Dichloroethane-d4 (S)	129 %		70-132	1		12/21/13 19:12	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	14.6 %		0.10	1		12/20/13 17:06		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-12-9**      Lab ID: **92184006021**      Collected: 12/17/13 16:25      Received: 12/19/13 11:15      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		401	1	12/19/13 13:00	12/20/13 23:11	83-32-9	
Acenaphthylene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	208-96-8	
Aniline	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	62-53-3	
Anthracene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	120-12-7	
Benzo(a)anthracene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	56-55-3	
Benzo(a)pyrene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	207-08-9	
Benzoic Acid	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	65-85-0	
Benzyl alcohol	ND ug/kg		801	1	12/19/13 13:00	12/20/13 23:11	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	101-55-3	
Butylbenzylphthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		801	1	12/19/13 13:00	12/20/13 23:11	59-50-7	
4-Chloroaniline	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	108-60-1	
2-Chloronaphthalene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	91-58-7	
2-Chlorophenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	7005-72-3	
Chrysene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	53-70-3	
Dibenzofuran	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	91-94-1	
2,4-Dichlorophenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	120-83-2	
Diethylphthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	84-66-2	
2,4-Dimethylphenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	105-67-9	
Dimethylphthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	131-11-3	
Di-n-butylphthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		801	1	12/19/13 13:00	12/20/13 23:11	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	606-20-2	
Di-n-octylphthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	117-81-7	
Fluoranthene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	206-44-0	
Fluorene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	87-68-3	
Hexachlorobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	77-47-4	
Hexachloroethane	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-12-9** Lab ID: **92184006021** Collected: 12/17/13 16:25 Received: 12/19/13 11:15 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		401	1	12/19/13 13:00	12/20/13 23:11	78-59-1	
1-Methylnaphthalene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	90-12-0	
2-Methylnaphthalene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11		
Naphthalene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	91-20-3	
2-Nitroaniline	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	88-74-4	
3-Nitroaniline	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	99-09-2	
4-Nitroaniline	ND ug/kg		801	1	12/19/13 13:00	12/20/13 23:11	100-01-6	
Nitrobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	98-95-3	
2-Nitrophenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	88-75-5	
4-Nitrophenol	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	86-30-6	
Pentachlorophenol	ND ug/kg		2000	1	12/19/13 13:00	12/20/13 23:11	87-86-5	
Phenanthrene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	85-01-8	
Phenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	108-95-2	
Pyrene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		401	1	12/19/13 13:00	12/20/13 23:11	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	64 %		23-110	1	12/19/13 13:00	12/20/13 23:11	4165-60-0	
2-Fluorobiphenyl (S)	71 %		30-110	1	12/19/13 13:00	12/20/13 23:11	321-60-8	
Terphenyl-d14 (S)	75 %		28-110	1	12/19/13 13:00	12/20/13 23:11	1718-51-0	
Phenol-d6 (S)	65 %		22-110	1	12/19/13 13:00	12/20/13 23:11	13127-88-3	
2-Fluorophenol (S)	59 %		13-110	1	12/19/13 13:00	12/20/13 23:11	367-12-4	
2,4,6-Tribromophenol (S)	78 %		27-110	1	12/19/13 13:00	12/20/13 23:11	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	272 ug/kg		104	1				A+
Benzene	ND ug/kg		5.2	1	12/21/13 19:32	71-43-2		
Bromobenzene	ND ug/kg		5.2	1	12/21/13 19:32	108-86-1		
Bromochloromethane	ND ug/kg		5.2	1	12/21/13 19:32	74-97-5		
Bromodichloromethane	ND ug/kg		5.2	1	12/21/13 19:32	75-27-4		
Bromoform	ND ug/kg		5.2	1	12/21/13 19:32	75-25-2		
Bromomethane	ND ug/kg		10.4	1	12/21/13 19:32	74-83-9		
2-Butanone (MEK)	ND ug/kg		104	1	12/21/13 19:32	78-93-3		
n-Butylbenzene	ND ug/kg		5.2	1	12/21/13 19:32	104-51-8		
sec-Butylbenzene	ND ug/kg		5.2	1	12/21/13 19:32	135-98-8		
tert-Butylbenzene	ND ug/kg		5.2	1	12/21/13 19:32	98-06-6		
Carbon tetrachloride	ND ug/kg		5.2	1	12/21/13 19:32	56-23-5		
Chlorobenzene	ND ug/kg		5.2	1	12/21/13 19:32	108-90-7		
Chloroethane	ND ug/kg		10.4	1	12/21/13 19:32	75-00-3		
Chloroform	ND ug/kg		5.2	1	12/21/13 19:32	67-66-3		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-12-9**      Lab ID: **92184006021**      Collected: 12/17/13 16:25      Received: 12/19/13 11:15      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		10.4	1		12/21/13 19:32	74-87-3	
2-Chlorotoluene	ND ug/kg		5.2	1		12/21/13 19:32	95-49-8	
4-Chlorotoluene	ND ug/kg		5.2	1		12/21/13 19:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.2	1		12/21/13 19:32	96-12-8	
Dibromochloromethane	ND ug/kg		5.2	1		12/21/13 19:32	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.2	1		12/21/13 19:32	106-93-4	
Dibromomethane	ND ug/kg		5.2	1		12/21/13 19:32	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.2	1		12/21/13 19:32	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.2	1		12/21/13 19:32	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.2	1		12/21/13 19:32	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10.4	1		12/21/13 19:32	75-71-8	1g
1,1-Dichloroethane	ND ug/kg		5.2	1		12/21/13 19:32	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.2	1		12/21/13 19:32	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.2	1		12/21/13 19:32	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.2	1		12/21/13 19:32	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.2	1		12/21/13 19:32	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.2	1		12/21/13 19:32	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.2	1		12/21/13 19:32	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.2	1		12/21/13 19:32	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.2	1		12/21/13 19:32	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.2	1		12/21/13 19:32	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.2	1		12/21/13 19:32	10061-02-6	
Diisopropyl ether	ND ug/kg		5.2	1		12/21/13 19:32	108-20-3	
Ethylbenzene	ND ug/kg		5.2	1		12/21/13 19:32	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.2	1		12/21/13 19:32	87-68-3	
2-Hexanone	ND ug/kg		51.8	1		12/21/13 19:32	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.2	1		12/21/13 19:32	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.2	1		12/21/13 19:32	99-87-6	
Methylene Chloride	ND ug/kg		20.7	1		12/21/13 19:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		51.8	1		12/21/13 19:32	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.2	1		12/21/13 19:32	1634-04-4	
Naphthalene	ND ug/kg		5.2	1		12/21/13 19:32	91-20-3	
n-Propylbenzene	ND ug/kg		5.2	1		12/21/13 19:32	103-65-1	
Styrene	ND ug/kg		5.2	1		12/21/13 19:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.2	1		12/21/13 19:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.2	1		12/21/13 19:32	79-34-5	
Tetrachloroethene	ND ug/kg		5.2	1		12/21/13 19:32	127-18-4	
Toluene	ND ug/kg		5.2	1		12/21/13 19:32	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.2	1		12/21/13 19:32	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.2	1		12/21/13 19:32	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.2	1		12/21/13 19:32	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.2	1		12/21/13 19:32	79-00-5	
Trichloroethene	ND ug/kg		5.2	1		12/21/13 19:32	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.2	1		12/21/13 19:32	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.2	1		12/21/13 19:32	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.2	1		12/21/13 19:32	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-12-9 Lab ID: 92184006021 Collected: 12/17/13 16:25 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
1,3,5-Trimethylbenzene	ND ug/kg		5.2	1		12/21/13 19:32	108-67-8	
Vinyl acetate	ND ug/kg		51.8	1		12/21/13 19:32	108-05-4	
Vinyl chloride	ND ug/kg		10.4	1		12/21/13 19:32	75-01-4	
Xylene (Total)	ND ug/kg		10.4	1		12/21/13 19:32	1330-20-7	
m&p-Xylene	ND ug/kg		10.4	1		12/21/13 19:32	179601-23-1	
o-Xylene	ND ug/kg		5.2	1		12/21/13 19:32	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	95 %		70-130	1		12/21/13 19:32	2037-26-5	
4-Bromofluorobenzene (S)	90 %		70-130	1		12/21/13 19:32	460-00-4	
1,2-Dichloroethane-d4 (S)	120 %		70-132	1		12/21/13 19:32	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	17.6 %		0.10	1		12/20/13 17:06		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-8-1**      Lab ID: **92184006022**      Collected: 12/17/13 16:35      Received: 12/19/13 11:15      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		366	1	12/19/13 13:00	12/20/13 23:37	83-32-9	
Acenaphthylene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	208-96-8	
Aniline	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	62-53-3	
Anthracene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	120-12-7	
Benzo(a)anthracene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	56-55-3	
Benzo(a)pyrene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	207-08-9	
Benzoic Acid	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	65-85-0	
Benzyl alcohol	ND ug/kg		732	1	12/19/13 13:00	12/20/13 23:37	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	101-55-3	
Butylbenzylphthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		732	1	12/19/13 13:00	12/20/13 23:37	59-50-7	
4-Chloroaniline	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	108-60-1	
2-Chloronaphthalene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	91-58-7	
2-Chlorophenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	7005-72-3	
Chrysene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	53-70-3	
Dibenzofuran	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	91-94-1	
2,4-Dichlorophenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	120-83-2	
Diethylphthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	84-66-2	
2,4-Dimethylphenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	105-67-9	
Dimethylphthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	131-11-3	
Di-n-butylphthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		732	1	12/19/13 13:00	12/20/13 23:37	534-52-1	
2,4-Dinitrophenol	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	606-20-2	
Di-n-octylphthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	117-81-7	
Fluoranthene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	206-44-0	
Fluorene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	87-68-3	
Hexachlorobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	77-47-4	
Hexachloroethane	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-8-1**      Lab ID: **92184006022**      Collected: 12/17/13 16:35      Received: 12/19/13 11:15      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		366	1	12/19/13 13:00	12/20/13 23:37	78-59-1	
1-Methylnaphthalene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	90-12-0	
2-Methylnaphthalene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37		
Naphthalene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	91-20-3	
2-Nitroaniline	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	88-74-4	
3-Nitroaniline	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	99-09-2	
4-Nitroaniline	ND ug/kg		732	1	12/19/13 13:00	12/20/13 23:37	100-01-6	
Nitrobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	98-95-3	
2-Nitrophenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	88-75-5	
4-Nitrophenol	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	86-30-6	
Pentachlorophenol	ND ug/kg		1830	1	12/19/13 13:00	12/20/13 23:37	87-86-5	
Phenanthrene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	85-01-8	
Phenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	108-95-2	
Pyrene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		366	1	12/19/13 13:00	12/20/13 23:37	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	45 %		23-110	1	12/19/13 13:00	12/20/13 23:37	4165-60-0	
2-Fluorobiphenyl (S)	48 %		30-110	1	12/19/13 13:00	12/20/13 23:37	321-60-8	
Terphenyl-d14 (S)	53 %		28-110	1	12/19/13 13:00	12/20/13 23:37	1718-51-0	
Phenol-d6 (S)	45 %		22-110	1	12/19/13 13:00	12/20/13 23:37	13127-88-3	
2-Fluorophenol (S)	42 %		13-110	1	12/19/13 13:00	12/20/13 23:37	367-12-4	
2,4,6-Tribromophenol (S)	41 %		27-110	1	12/19/13 13:00	12/20/13 23:37	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		87.4	1		12/21/13 19:51	67-64-1	
Benzene	ND ug/kg		4.4	1		12/21/13 19:51	71-43-2	
Bromobenzene	ND ug/kg		4.4	1		12/21/13 19:51	108-86-1	
Bromochloromethane	ND ug/kg		4.4	1		12/21/13 19:51	74-97-5	
Bromodichloromethane	ND ug/kg		4.4	1		12/21/13 19:51	75-27-4	
Bromoform	ND ug/kg		4.4	1		12/21/13 19:51	75-25-2	
Bromomethane	ND ug/kg		8.7	1		12/21/13 19:51	74-83-9	
2-Butanone (MEK)	ND ug/kg		87.4	1		12/21/13 19:51	78-93-3	
n-Butylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	104-51-8	
sec-Butylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	135-98-8	
tert-Butylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	98-06-6	
Carbon tetrachloride	ND ug/kg		4.4	1		12/21/13 19:51	56-23-5	
Chlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	108-90-7	
Chloroethane	ND ug/kg		8.7	1		12/21/13 19:51	75-00-3	
Chloroform	ND ug/kg		4.4	1		12/21/13 19:51	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-8-1**      Lab ID: **92184006022**      Collected: 12/17/13 16:35      Received: 12/19/13 11:15      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		8.7	1		12/21/13 19:51	74-87-3	
2-Chlorotoluene	ND ug/kg		4.4	1		12/21/13 19:51	95-49-8	
4-Chlorotoluene	ND ug/kg		4.4	1		12/21/13 19:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.4	1		12/21/13 19:51	96-12-8	
Dibromochloromethane	ND ug/kg		4.4	1		12/21/13 19:51	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.4	1		12/21/13 19:51	106-93-4	
Dibromomethane	ND ug/kg		4.4	1		12/21/13 19:51	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	106-46-7	
Dichlorodifluoromethane	ND ug/kg		8.7	1		12/21/13 19:51	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.4	1		12/21/13 19:51	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.4	1		12/21/13 19:51	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:51	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:51	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.4	1		12/21/13 19:51	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:51	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:51	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.4	1		12/21/13 19:51	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:51	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:51	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.4	1		12/21/13 19:51	10061-02-6	
Diisopropyl ether	ND ug/kg		4.4	1		12/21/13 19:51	108-20-3	
Ethylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.4	1		12/21/13 19:51	87-68-3	
2-Hexanone	ND ug/kg		43.7	1		12/21/13 19:51	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.4	1		12/21/13 19:51	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.4	1		12/21/13 19:51	99-87-6	
Methylene Chloride	ND ug/kg		17.5	1		12/21/13 19:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		43.7	1		12/21/13 19:51	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.4	1		12/21/13 19:51	1634-04-4	
Naphthalene	ND ug/kg		4.4	1		12/21/13 19:51	91-20-3	
n-Propylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	103-65-1	
Styrene	ND ug/kg		4.4	1		12/21/13 19:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.4	1		12/21/13 19:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.4	1		12/21/13 19:51	79-34-5	
Tetrachloroethene	ND ug/kg		4.4	1		12/21/13 19:51	127-18-4	
Toluene	ND ug/kg		4.4	1		12/21/13 19:51	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.4	1		12/21/13 19:51	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.4	1		12/21/13 19:51	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.4	1		12/21/13 19:51	79-00-5	
Trichloroethene	ND ug/kg		4.4	1		12/21/13 19:51	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.4	1		12/21/13 19:51	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.4	1		12/21/13 19:51	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.4	1		12/21/13 19:51	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-8-1 Lab ID: 92184006022 Collected: 12/17/13 16:35 Received: 12/19/13 11:15 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		4.4	1		12/21/13 19:51	108-67-8	
Vinyl acetate	ND ug/kg		43.7	1		12/21/13 19:51	108-05-4	
Vinyl chloride	ND ug/kg		8.7	1		12/21/13 19:51	75-01-4	
Xylene (Total)	ND ug/kg		8.7	1		12/21/13 19:51	1330-20-7	
m&p-Xylene	ND ug/kg		8.7	1		12/21/13 19:51	179601-23-1	
o-Xylene	ND ug/kg		4.4	1		12/21/13 19:51	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	101 %		70-130	1		12/21/13 19:51	2037-26-5	
4-Bromofluorobenzene (S)	96 %		70-130	1		12/21/13 19:51	460-00-4	
1,2-Dichloroethane-d4 (S)	125 %		70-132	1		12/21/13 19:51	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	9.8 %		0.10	1		12/20/13 17:06		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-8-2**      Lab ID: **92184006023**      Collected: 12/18/13 08:55      Received: 12/19/13 11:15      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Acenaphthene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	83-32-9	
Acenaphthylene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	208-96-8	
Aniline	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	62-53-3	
Anthracene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	120-12-7	
Benzo(a)anthracene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	56-55-3	
Benzo(a)pyrene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	207-08-9	
Benzoic Acid	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	65-85-0	
Benzyl alcohol	ND ug/kg		838	1	12/19/13 13:00	12/21/13 00:04	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	101-55-3	
Butylbenzylphthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		838	1	12/19/13 13:00	12/21/13 00:04	59-50-7	
4-Chloroaniline	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	108-60-1	
2-Chloronaphthalene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	91-58-7	
2-Chlorophenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	7005-72-3	
Chrysene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	53-70-3	
Dibenzofuran	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	91-94-1	
2,4-Dichlorophenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	120-83-2	
Diethylphthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	84-66-2	
2,4-Dimethylphenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	105-67-9	
Dimethylphthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	131-11-3	
Di-n-butylphthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		838	1	12/19/13 13:00	12/21/13 00:04	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	606-20-2	
Di-n-octylphthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	117-81-7	
Fluoranthene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	206-44-0	
Fluorene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	87-68-3	
Hexachlorobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	77-47-4	
Hexachloroethane	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-8-2**      Lab ID: **92184006023**      Collected: 12/18/13 08:55      Received: 12/19/13 11:15      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV Microwave</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Isophorone	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	78-59-1	
1-Methylnaphthalene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	90-12-0	
2-Methylnaphthalene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04		
Naphthalene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	91-20-3	
2-Nitroaniline	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	88-74-4	
3-Nitroaniline	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	99-09-2	
4-Nitroaniline	ND ug/kg		838	1	12/19/13 13:00	12/21/13 00:04	100-01-6	
Nitrobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	98-95-3	
2-Nitrophenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	88-75-5	
4-Nitrophenol	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	86-30-6	
Pentachlorophenol	ND ug/kg		2100	1	12/19/13 13:00	12/21/13 00:04	87-86-5	
Phenanthrene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	85-01-8	
Phenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	108-95-2	
Pyrene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		419	1	12/19/13 13:00	12/21/13 00:04	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	62 %		23-110	1	12/19/13 13:00	12/21/13 00:04	4165-60-0	
2-Fluorobiphenyl (S)	64 %		30-110	1	12/19/13 13:00	12/21/13 00:04	321-60-8	
Terphenyl-d14 (S)	61 %		28-110	1	12/19/13 13:00	12/21/13 00:04	1718-51-0	
Phenol-d6 (S)	63 %		22-110	1	12/19/13 13:00	12/21/13 00:04	13127-88-3	
2-Fluorophenol (S)	61 %		13-110	1	12/19/13 13:00	12/21/13 00:04	367-12-4	
2,4,6-Tribromophenol (S)	62 %		27-110	1	12/19/13 13:00	12/21/13 00:04	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	ND ug/kg		97.3	1		12/24/13 15:58	67-64-1	
Benzene	ND ug/kg		4.9	1		12/24/13 15:58	71-43-2	
Bromobenzene	ND ug/kg		4.9	1		12/24/13 15:58	108-86-1	
Bromochloromethane	ND ug/kg		4.9	1		12/24/13 15:58	74-97-5	
Bromodichloromethane	ND ug/kg		4.9	1		12/24/13 15:58	75-27-4	
Bromoform	ND ug/kg		4.9	1		12/24/13 15:58	75-25-2	
Bromomethane	ND ug/kg		9.7	1		12/24/13 15:58	74-83-9	
2-Butanone (MEK)	ND ug/kg		97.3	1		12/24/13 15:58	78-93-3	
n-Butylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	104-51-8	
sec-Butylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	135-98-8	
tert-Butylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	98-06-6	
Carbon tetrachloride	ND ug/kg		4.9	1		12/24/13 15:58	56-23-5	
Chlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	108-90-7	
Chloroethane	ND ug/kg		9.7	1		12/24/13 15:58	75-00-3	
Chloroform	ND ug/kg		4.9	1		12/24/13 15:58	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

**Sample: S-8-2**      Lab ID: **92184006023**      Collected: 12/18/13 08:55      Received: 12/19/13 11:15      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		9.7	1		12/24/13 15:58	74-87-3	
2-Chlorotoluene	ND ug/kg		4.9	1		12/24/13 15:58	95-49-8	
4-Chlorotoluene	ND ug/kg		4.9	1		12/24/13 15:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		4.9	1		12/24/13 15:58	96-12-8	
Dibromochloromethane	ND ug/kg		4.9	1		12/24/13 15:58	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		4.9	1		12/24/13 15:58	106-93-4	
Dibromomethane	ND ug/kg		4.9	1		12/24/13 15:58	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	106-46-7	
Dichlorodifluoromethane	ND ug/kg		9.7	1		12/24/13 15:58	75-71-8	
1,1-Dichloroethane	ND ug/kg		4.9	1		12/24/13 15:58	75-34-3	
1,2-Dichloroethane	ND ug/kg		4.9	1		12/24/13 15:58	107-06-2	
1,1-Dichloroethene	ND ug/kg		4.9	1		12/24/13 15:58	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		4.9	1		12/24/13 15:58	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		4.9	1		12/24/13 15:58	156-60-5	
1,2-Dichloropropane	ND ug/kg		4.9	1		12/24/13 15:58	78-87-5	
1,3-Dichloropropane	ND ug/kg		4.9	1		12/24/13 15:58	142-28-9	
2,2-Dichloropropane	ND ug/kg		4.9	1		12/24/13 15:58	594-20-7	
1,1-Dichloropropene	ND ug/kg		4.9	1		12/24/13 15:58	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		4.9	1		12/24/13 15:58	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		4.9	1		12/24/13 15:58	10061-02-6	
Diisopropyl ether	ND ug/kg		4.9	1		12/24/13 15:58	108-20-3	
Ethylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		4.9	1		12/24/13 15:58	87-68-3	
2-Hexanone	ND ug/kg		48.6	1		12/24/13 15:58	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		4.9	1		12/24/13 15:58	98-82-8	
p-Isopropyltoluene	ND ug/kg		4.9	1		12/24/13 15:58	99-87-6	
Methylene Chloride	ND ug/kg		19.5	1		12/24/13 15:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		48.6	1		12/24/13 15:58	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		4.9	1		12/24/13 15:58	1634-04-4	
Naphthalene	ND ug/kg		4.9	1		12/24/13 15:58	91-20-3	
n-Propylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	103-65-1	
Styrene	ND ug/kg		4.9	1		12/24/13 15:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		4.9	1		12/24/13 15:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		4.9	1		12/24/13 15:58	79-34-5	
Tetrachloroethene	ND ug/kg		4.9	1		12/24/13 15:58	127-18-4	
Toluene	ND ug/kg		4.9	1		12/24/13 15:58	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		4.9	1		12/24/13 15:58	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		4.9	1		12/24/13 15:58	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		4.9	1		12/24/13 15:58	79-00-5	
Trichloroethene	ND ug/kg		4.9	1		12/24/13 15:58	79-01-6	
Trichlorofluoromethane	ND ug/kg		4.9	1		12/24/13 15:58	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		4.9	1		12/24/13 15:58	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		4.9	1		12/24/13 15:58	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-8-2 Lab ID: 92184006023 Collected: 12/18/13 08:55 Received: 12/19/13 11:15 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		4.9	1		12/24/13 15:58	108-67-8	
Vinyl acetate	ND ug/kg		48.6	1		12/24/13 15:58	108-05-4	
Vinyl chloride	ND ug/kg		9.7	1		12/24/13 15:58	75-01-4	
Xylene (Total)	ND ug/kg		9.7	1		12/24/13 15:58	1330-20-7	
m&p-Xylene	ND ug/kg		9.7	1		12/24/13 15:58	179601-23-1	
o-Xylene	ND ug/kg		4.9	1		12/24/13 15:58	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	99 %		70-130	1		12/24/13 15:58	2037-26-5	
4-Bromofluorobenzene (S)	93 %		70-130	1		12/24/13 15:58	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		70-132	1		12/24/13 15:58	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	21.3 %		0.10	1		12/20/13 17:06		

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**Sample: S-8-5**      Lab ID: **92184006024**      Collected: 12/18/13 09:25      Received: 12/19/13 11:15      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		426	1	12/19/13 13:00	12/21/13 00:31	83-32-9	
Acenaphthylene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	208-96-8	
Aniline	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	62-53-3	
Anthracene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	120-12-7	
Benzo(a)anthracene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	56-55-3	
Benzo(a)pyrene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	50-32-8	
Benzo(b)fluoranthene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	205-99-2	
Benzo(g,h,i)perylene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	207-08-9	
Benzoic Acid	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	65-85-0	
Benzyl alcohol	ND ug/kg		853	1	12/19/13 13:00	12/21/13 00:31	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	101-55-3	
Butylbenzylphthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		853	1	12/19/13 13:00	12/21/13 00:31	59-50-7	
4-Chloroaniline	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	108-60-1	
2-Chloronaphthalene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	91-58-7	
2-Chlorophenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	7005-72-3	
Chrysene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	53-70-3	
Dibenzofuran	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	91-94-1	
2,4-Dichlorophenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	120-83-2	
Diethylphthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	84-66-2	
2,4-Dimethylphenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	105-67-9	
Dimethylphthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	131-11-3	
Di-n-butylphthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		853	1	12/19/13 13:00	12/21/13 00:31	534-52-1	
2,4-Dinitrophenol	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	606-20-2	
Di-n-octylphthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	117-81-7	
Fluoranthene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	206-44-0	
Fluorene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	86-73-7	
Hexachloro-1,3-butadiene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	87-68-3	
Hexachlorobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	77-47-4	
Hexachloroethane	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-8-5 Lab ID: 92184006024 Collected: 12/18/13 09:25 Received: 12/19/13 11:15 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		426	1	12/19/13 13:00	12/21/13 00:31	78-59-1	
1-Methylnaphthalene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	90-12-0	
2-Methylnaphthalene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31		
Naphthalene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	91-20-3	
2-Nitroaniline	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	88-74-4	
3-Nitroaniline	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	99-09-2	
4-Nitroaniline	ND ug/kg		853	1	12/19/13 13:00	12/21/13 00:31	100-01-6	
Nitrobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	98-95-3	
2-Nitrophenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	88-75-5	
4-Nitrophenol	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	100-02-7	
N-Nitrosodimethylamine	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	621-64-7	
N-Nitrosodiphenylamine	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	86-30-6	
Pentachlorophenol	ND ug/kg		2130	1	12/19/13 13:00	12/21/13 00:31	87-86-5	
Phenanthrene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	85-01-8	
Phenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	108-95-2	
Pyrene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	129-00-0	
1,2,4-Trichlorobenzene	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	120-82-1	
2,4,5-Trichlorophenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	95-95-4	
2,4,6-Trichlorophenol	ND ug/kg		426	1	12/19/13 13:00	12/21/13 00:31	88-06-2	
<b>Surrogates</b>								
Nitrobenzene-d5 (S)	55 %		23-110	1	12/19/13 13:00	12/21/13 00:31	4165-60-0	
2-Fluorobiphenyl (S)	49 %		30-110	1	12/19/13 13:00	12/21/13 00:31	321-60-8	
Terphenyl-d14 (S)	56 %		28-110	1	12/19/13 13:00	12/21/13 00:31	1718-51-0	
Phenol-d6 (S)	57 %		22-110	1	12/19/13 13:00	12/21/13 00:31	13127-88-3	
2-Fluorophenol (S)	54 %		13-110	1	12/19/13 13:00	12/21/13 00:31	367-12-4	
2,4,6-Tribromophenol (S)	61 %		27-110	1	12/19/13 13:00	12/21/13 00:31	118-79-6	
<b>8260/5035A Volatile Organics</b>		Analytical Method: EPA 8260						
Acetone	228 ug/kg		107	1		12/24/13 02:10	67-64-1	A+
Benzene	ND ug/kg		5.4	1		12/24/13 02:10	71-43-2	
Bromobenzene	ND ug/kg		5.4	1		12/24/13 02:10	108-86-1	
Bromochloromethane	ND ug/kg		5.4	1		12/24/13 02:10	74-97-5	
Bromodichloromethane	ND ug/kg		5.4	1		12/24/13 02:10	75-27-4	
Bromoform	ND ug/kg		5.4	1		12/24/13 02:10	75-25-2	
Bromomethane	ND ug/kg		10.7	1		12/24/13 02:10	74-83-9	
2-Butanone (MEK)	ND ug/kg		107	1		12/24/13 02:10	78-93-3	
n-Butylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	104-51-8	
sec-Butylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	135-98-8	
tert-Butylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	98-06-6	
Carbon tetrachloride	ND ug/kg		5.4	1		12/24/13 02:10	56-23-5	
Chlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	108-90-7	
Chloroethane	ND ug/kg		10.7	1		12/24/13 02:10	75-00-3	
Chloroform	ND ug/kg		5.4	1		12/24/13 02:10	67-66-3	

## REPORT OF LABORATORY ANALYSIS

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

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-8-5 Lab ID: 92184006024 Collected: 12/18/13 09:25 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>	Analytical Method: EPA 8260							
Chloromethane	ND ug/kg		10.7	1		12/24/13 02:10	74-87-3	
2-Chlorotoluene	ND ug/kg		5.4	1		12/24/13 02:10	95-49-8	
4-Chlorotoluene	ND ug/kg		5.4	1		12/24/13 02:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND ug/kg		5.4	1		12/24/13 02:10	96-12-8	
Dibromochloromethane	ND ug/kg		5.4	1		12/24/13 02:10	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/kg		5.4	1		12/24/13 02:10	106-93-4	
Dibromomethane	ND ug/kg		5.4	1		12/24/13 02:10	74-95-3	
1,2-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	106-46-7	
Dichlorodifluoromethane	ND ug/kg		10.7	1		12/24/13 02:10	75-71-8	
1,1-Dichloroethane	ND ug/kg		5.4	1		12/24/13 02:10	75-34-3	
1,2-Dichloroethane	ND ug/kg		5.4	1		12/24/13 02:10	107-06-2	
1,1-Dichloroethene	ND ug/kg		5.4	1		12/24/13 02:10	75-35-4	
cis-1,2-Dichloroethene	ND ug/kg		5.4	1		12/24/13 02:10	156-59-2	
trans-1,2-Dichloroethene	ND ug/kg		5.4	1		12/24/13 02:10	156-60-5	
1,2-Dichloropropane	ND ug/kg		5.4	1		12/24/13 02:10	78-87-5	
1,3-Dichloropropane	ND ug/kg		5.4	1		12/24/13 02:10	142-28-9	
2,2-Dichloropropane	ND ug/kg		5.4	1		12/24/13 02:10	594-20-7	
1,1-Dichloropropene	ND ug/kg		5.4	1		12/24/13 02:10	563-58-6	
cis-1,3-Dichloropropene	ND ug/kg		5.4	1		12/24/13 02:10	10061-01-5	
trans-1,3-Dichloropropene	ND ug/kg		5.4	1		12/24/13 02:10	10061-02-6	
Diisopropyl ether	ND ug/kg		5.4	1		12/24/13 02:10	108-20-3	
Ethylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	100-41-4	
Hexachloro-1,3-butadiene	ND ug/kg		5.4	1		12/24/13 02:10	87-68-3	
2-Hexanone	ND ug/kg		53.7	1		12/24/13 02:10	591-78-6	
Isopropylbenzene (Cumene)	ND ug/kg		5.4	1		12/24/13 02:10	98-82-8	
p-Isopropyltoluene	ND ug/kg		5.4	1		12/24/13 02:10	99-87-6	
Methylene Chloride	ND ug/kg		21.5	1		12/24/13 02:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/kg		53.7	1		12/24/13 02:10	108-10-1	
Methyl-tert-butyl ether	ND ug/kg		5.4	1		12/24/13 02:10	1634-04-4	
Naphthalene	ND ug/kg		5.4	1		12/24/13 02:10	91-20-3	
n-Propylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	103-65-1	
Styrene	ND ug/kg		5.4	1		12/24/13 02:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/kg		5.4	1		12/24/13 02:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/kg		5.4	1		12/24/13 02:10	79-34-5	
Tetrachloroethene	ND ug/kg		5.4	1		12/24/13 02:10	127-18-4	
Toluene	ND ug/kg		5.4	1		12/24/13 02:10	108-88-3	
1,2,3-Trichlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	87-61-6	
1,2,4-Trichlorobenzene	ND ug/kg		5.4	1		12/24/13 02:10	120-82-1	
1,1,1-Trichloroethane	ND ug/kg		5.4	1		12/24/13 02:10	71-55-6	
1,1,2-Trichloroethane	ND ug/kg		5.4	1		12/24/13 02:10	79-00-5	
Trichloroethene	ND ug/kg		5.4	1		12/24/13 02:10	79-01-6	
Trichlorofluoromethane	ND ug/kg		5.4	1		12/24/13 02:10	75-69-4	
1,2,3-Trichloropropane	ND ug/kg		5.4	1		12/24/13 02:10	96-18-4	
1,2,4-Trimethylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	95-63-6	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## ANALYTICAL RESULTS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Sample: S-8-5 Lab ID: 92184006024 Collected: 12/18/13 09:25 Received: 12/19/13 11:15 Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5035A Volatile Organics</b>	Analytical Method: EPA 8260							
1,3,5-Trimethylbenzene	ND ug/kg		5.4	1		12/24/13 02:10	108-67-8	
Vinyl acetate	ND ug/kg		53.7	1		12/24/13 02:10	108-05-4	
Vinyl chloride	ND ug/kg		10.7	1		12/24/13 02:10	75-01-4	
Xylene (Total)	ND ug/kg		10.7	1		12/24/13 02:10	1330-20-7	
m&p-Xylene	ND ug/kg		10.7	1		12/24/13 02:10	179601-23-1	
o-Xylene	ND ug/kg		5.4	1		12/24/13 02:10	95-47-6	
<b>Surrogates</b>								
Toluene-d8 (S)	98 %		70-130	1		12/24/13 02:10	2037-26-5	
4-Bromofluorobenzene (S)	87 %		70-130	1		12/24/13 02:10	460-00-4	
1,2-Dichloroethane-d4 (S)	110 %		70-132	1		12/24/13 02:10	17060-07-0	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87							
Percent Moisture	<b>22.6 %</b>		0.10	1		12/20/13 17:07		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: GCV/7649 Analysis Method: EPA 8015 Modified

QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics

Associated Lab Samples: 92184006001, 92184006002, 92184006003, 92184006004, 92184006005, 92184006006, 92184006007,  
92184006008, 92184006009, 92184006013

METHOD BLANK: 1113921 Matrix: Solid

Associated Lab Samples: 92184006001, 92184006002, 92184006003, 92184006004, 92184006005, 92184006006, 92184006007,  
92184006008, 92184006009, 92184006013

Parameter	Units	Blank Result	Reporting Limit		Analyzed	Qualifiers
			Limit	Analyzed		
Gasoline Range Organics	mg/kg	ND	6.0	12/28/13 11:32		
4-Bromofluorobenzene (S)	%	100	70-167	12/28/13 11:32		

LABORATORY CONTROL SAMPLE: 1113922

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits		Qualifiers
					Limit	Analyzed	
Gasoline Range Organics	mg/kg	49.8	47.9	96	70-165		
4-Bromofluorobenzene (S)	%			98	70-167		

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1113923 1113924

Parameter	Units	92183967004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Result	Conc.	Result	Result	Rec	RPD	Qual		
Gasoline Range Organics	mg/kg	ND	56.5	56.5	55.5	55.5	97	97	47-187	0	
4-Bromofluorobenzene (S)	%						102	95	70-167		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: GCV/7653 Analysis Method: EPA 8015 Modified

QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics

Associated Lab Samples: 92184006014, 92184006015, 92184006016

METHOD BLANK: 1114163 Matrix: Solid

Associated Lab Samples: 92184006014, 92184006015, 92184006016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	12/31/13 04:06	
4-Bromofluorobenzene (S)	%	103	70-167	12/31/13 04:06	

LABORATORY CONTROL SAMPLE: 1114164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	49.7	46.9	94	70-165	
4-Bromofluorobenzene (S)	%			102	70-167	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1114165 1114166

Parameter	Units	92184006014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Gasoline Range Organics	mg/kg	ND	46	46	44.5	39.5	97	86	47-187	12	
4-Bromofluorobenzene (S)	%						102	101	70-167		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch:	MSV/25308	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184006010, 92184006011		

METHOD BLANK: 1110867                          Matrix: Solid

Associated Lab Samples: 92184006010, 92184006011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,1,1-Trichloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,1,2-Trichloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,1-Dichloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,1-Dichloroethene	ug/kg	ND	5.4	12/21/13 10:52	
1,1-Dichloropropene	ug/kg	ND	5.4	12/21/13 10:52	
1,2,3-Trichlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,2,3-Trichloropropane	ug/kg	ND	5.4	12/21/13 10:52	
1,2,4-Trichlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,2,4-Trimethylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.4	12/21/13 10:52	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.4	12/21/13 10:52	
1,2-Dichlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,2-Dichloroethane	ug/kg	ND	5.4	12/21/13 10:52	
1,2-Dichloropropane	ug/kg	ND	5.4	12/21/13 10:52	
1,3,5-Trimethylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,3-Dichlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
1,3-Dichloropropane	ug/kg	ND	5.4	12/21/13 10:52	
1,4-Dichlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
2,2-Dichloropropane	ug/kg	ND	5.4	12/21/13 10:52	
2-Butanone (MEK)	ug/kg	ND	108	12/21/13 10:52	
2-Chlorotoluene	ug/kg	ND	5.4	12/21/13 10:52	
2-Hexanone	ug/kg	ND	54.1	12/21/13 10:52	
4-Chlorotoluene	ug/kg	ND	5.4	12/21/13 10:52	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.1	12/21/13 10:52	
Acetone	ug/kg	ND	108	12/21/13 10:52	
Benzene	ug/kg	ND	5.4	12/21/13 10:52	
Bromobenzene	ug/kg	ND	5.4	12/21/13 10:52	
Bromochloromethane	ug/kg	ND	5.4	12/21/13 10:52	
Bromodichloromethane	ug/kg	ND	5.4	12/21/13 10:52	
Bromoform	ug/kg	ND	5.4	12/21/13 10:52	
Bromomethane	ug/kg	ND	10.8	12/21/13 10:52	
Carbon tetrachloride	ug/kg	ND	5.4	12/21/13 10:52	
Chlorobenzene	ug/kg	ND	5.4	12/21/13 10:52	
Chloroethane	ug/kg	ND	10.8	12/21/13 10:52	
Chloroform	ug/kg	ND	5.4	12/21/13 10:52	
Chloromethane	ug/kg	ND	10.8	12/21/13 10:52	
cis-1,2-Dichloroethene	ug/kg	ND	5.4	12/21/13 10:52	
cis-1,3-Dichloropropene	ug/kg	ND	5.4	12/21/13 10:52	
Dibromochloromethane	ug/kg	ND	5.4	12/21/13 10:52	
Dibromomethane	ug/kg	ND	5.4	12/21/13 10:52	
Dichlorodifluoromethane	ug/kg	ND	10.8	12/21/13 10:52	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

METHOD BLANK: 1110867

Matrix: Solid

Associated Lab Samples: 92184006010, 92184006011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.4	12/21/13 10:52	
Ethylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
Hexachloro-1,3-butadiene	ug/kg	ND	5.4	12/21/13 10:52	
Isopropylbenzene (Cumene)	ug/kg	ND	5.4	12/21/13 10:52	
m&p-Xylene	ug/kg	ND	10.8	12/21/13 10:52	
Methyl-tert-butyl ether	ug/kg	ND	5.4	12/21/13 10:52	
Methylene Chloride	ug/kg	ND	21.6	12/21/13 10:52	
n-Butylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
n-Propylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
Naphthalene	ug/kg	ND	5.4	12/21/13 10:52	
o-Xylene	ug/kg	ND	5.4	12/21/13 10:52	
p-Isopropyltoluene	ug/kg	ND	5.4	12/21/13 10:52	
sec-Butylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
Styrene	ug/kg	ND	5.4	12/21/13 10:52	
tert-Butylbenzene	ug/kg	ND	5.4	12/21/13 10:52	
Tetrachloroethene	ug/kg	ND	5.4	12/21/13 10:52	
Toluene	ug/kg	ND	5.4	12/21/13 10:52	
trans-1,2-Dichloroethene	ug/kg	ND	5.4	12/21/13 10:52	
trans-1,3-Dichloropropene	ug/kg	ND	5.4	12/21/13 10:52	
Trichloroethene	ug/kg	ND	5.4	12/21/13 10:52	
Trichlorofluoromethane	ug/kg	ND	5.4	12/21/13 10:52	
Vinyl acetate	ug/kg	ND	54.1	12/21/13 10:52	
Vinyl chloride	ug/kg	ND	10.8	12/21/13 10:52	
Xylene (Total)	ug/kg	ND	10.8	12/21/13 10:52	
1,2-Dichloroethane-d4 (S)	%	89	70-132	12/21/13 10:52	
4-Bromofluorobenzene (S)	%	105	70-130	12/21/13 10:52	
Toluene-d8 (S)	%	107	70-130	12/21/13 10:52	

LABORATORY CONTROL SAMPLE: 1110868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52	54.2	104	70-131	
1,1,1-Trichloroethane	ug/kg	52	51.2	99	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	52	55.9	107	70-130	
1,1,2-Trichloroethane	ug/kg	52	55.0	106	70-132	
1,1-Dichloroethane	ug/kg	52	50.0	96	70-143	
1,1-Dichloroethene	ug/kg	52	49.7	96	70-137	
1,1-Dichloropropene	ug/kg	52	54.2	104	70-135	
1,2,3-Trichlorobenzene	ug/kg	52	55.0	106	69-153	
1,2,3-Trichloropropane	ug/kg	52	55.3	106	70-130	
1,2,4-Trichlorobenzene	ug/kg	52	55.9	108	55-171	
1,2,4-Trimethylbenzene	ug/kg	52	54.0	104	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	52	54.4	105	68-141	
1,2-Dibromoethane (EDB)	ug/kg	52	58.3	112	70-130	
1,2-Dichlorobenzene	ug/kg	52	53.2	102	70-140	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1110868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	52	49.9	96	70-137	
1,2-Dichloropropane	ug/kg	52	53.9	104	70-133	
1,3,5-Trimethylbenzene	ug/kg	52	53.5	103	70-143	
1,3-Dichlorobenzene	ug/kg	52	51.8	100	70-144	
1,3-Dichloropropane	ug/kg	52	58.2	112	70-132	
1,4-Dichlorobenzene	ug/kg	52	53.3	103	70-142	
2,2-Dichloropropane	ug/kg	52	51.4	99	68-152	
2-Butanone (MEK)	ug/kg	104	100J	97	70-149	
2-Chlorotoluene	ug/kg	52	51.4	99	70-141	
2-Hexanone	ug/kg	104	115	111	70-149	
4-Chlorotoluene	ug/kg	52	53.5	103	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	104	106	102	70-153	
Acetone	ug/kg	104	98.5J	95	70-157	
Benzene	ug/kg	52	54.9	106	70-130	
Bromobenzene	ug/kg	52	50.5	97	70-141	
Bromo(chloromethane	ug/kg	52	52.8	102	70-149	
Bromodichloromethane	ug/kg	52	51.0	98	70-130	
Bromoform	ug/kg	52	58.9	113	70-131	
Bromomethane	ug/kg	52	56.8	109	64-136	
Carbon tetrachloride	ug/kg	52	47.4	91	70-154	
Chlorobenzene	ug/kg	52	52.8	102	70-135	
Chloroethane	ug/kg	52	52.4	101	68-151	
Chloroform	ug/kg	52	52.0	100	70-130	
Chloromethane	ug/kg	52	46.7	90	70-132	
cis-1,2-Dichloroethene	ug/kg	52	50.0	96	70-140	
cis-1,3-Dichloropropene	ug/kg	52	52.6	101	70-137	
Dibromochloromethane	ug/kg	52	58.0	112	70-130	
Dibromomethane	ug/kg	52	51.7	99	70-136	
Dichlorodifluoromethane	ug/kg	52	55.0	106	36-148	
Diisopropyl ether	ug/kg	52	50.5	97	70-139	
Ethylbenzene	ug/kg	52	52.5	101	70-137	
Hexachloro-1,3-butadiene	ug/kg	52	53.2	102	70-145	
Isopropylbenzene (Cumene)	ug/kg	52	55.7	107	70-141	
m&p-Xylene	ug/kg	104	109	105	70-140	
Methyl-tert-butyl ether	ug/kg	52	51.9	100	45-150	
Methylene Chloride	ug/kg	52	48.7	94	70-133	
n-Butylbenzene	ug/kg	52	56.4	109	65-155	
n-Propylbenzene	ug/kg	52	54.7	105	70-148	
Naphthalene	ug/kg	52	54.9	106	70-148	
o-Xylene	ug/kg	52	55.2	106	70-141	
p-Isopropyltoluene	ug/kg	52	54.5	105	70-148	
sec-Butylbenzene	ug/kg	52	54.8	106	70-145	
Styrene	ug/kg	52	56.4	109	70-138	
tert-Butylbenzene	ug/kg	52	54.1	104	70-143	
Tetrachloroethene	ug/kg	52	56.1	108	70-140	
Toluene	ug/kg	52	49.2	95	70-130	
trans-1,2-Dichloroethene	ug/kg	52	49.1	94	70-136	
trans-1,3-Dichloropropene	ug/kg	52	53.0	102	70-138	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

LABORATORY CONTROL SAMPLE: 1110868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	52	50.3	97	70-132	
Trichlorofluoromethane	ug/kg	52	53.7	103	69-134	
Vinyl acetate	ug/kg	104	146	141	24-161	
Vinyl chloride	ug/kg	52	53.1	102	55-140	
Xylene (Total)	ug/kg	156	164	105	70-141	
1,2-Dichloroethane-d4 (S)	%			95	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			93	70-130	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: MSV/25319 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics  
Associated Lab Samples: 92184006012, 92184006017, 92184006018, 92184006019, 92184006020, 92184006021, 92184006022

METHOD BLANK: 1111204 Matrix: Solid  
Associated Lab Samples: 92184006012, 92184006017, 92184006018, 92184006019, 92184006020, 92184006021, 92184006022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,1,1-Trichloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,1,2-Trichloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,1-Dichloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,1-Dichloroethene	ug/kg	ND	5.1	12/21/13 13:19	
1,1-Dichloropropene	ug/kg	ND	5.1	12/21/13 13:19	
1,2,3-Trichlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,2,3-Trichloropropane	ug/kg	ND	5.1	12/21/13 13:19	
1,2,4-Trichlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,2,4-Trimethylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.1	12/21/13 13:19	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.1	12/21/13 13:19	
1,2-Dichlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,2-Dichloroethane	ug/kg	ND	5.1	12/21/13 13:19	
1,2-Dichloropropane	ug/kg	ND	5.1	12/21/13 13:19	
1,3,5-Trimethylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,3-Dichlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
1,3-Dichloropropane	ug/kg	ND	5.1	12/21/13 13:19	
1,4-Dichlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
2,2-Dichloropropane	ug/kg	ND	5.1	12/21/13 13:19	
2-Butanone (MEK)	ug/kg	ND	102	12/21/13 13:19	
2-Chlorotoluene	ug/kg	ND	5.1	12/21/13 13:19	
2-Hexanone	ug/kg	ND	50.9	12/21/13 13:19	
4-Chlorotoluene	ug/kg	ND	5.1	12/21/13 13:19	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.9	12/21/13 13:19	
Acetone	ug/kg	ND	102	12/21/13 13:19	
Benzene	ug/kg	ND	5.1	12/21/13 13:19	
Bromobenzene	ug/kg	ND	5.1	12/21/13 13:19	
Bromochloromethane	ug/kg	ND	5.1	12/21/13 13:19	
Bromodichloromethane	ug/kg	ND	5.1	12/21/13 13:19	
Bromoform	ug/kg	ND	5.1	12/21/13 13:19	
Bromomethane	ug/kg	ND	10.2	12/21/13 13:19	
Carbon tetrachloride	ug/kg	ND	5.1	12/21/13 13:19	
Chlorobenzene	ug/kg	ND	5.1	12/21/13 13:19	
Chloroethane	ug/kg	ND	10.2	12/21/13 13:19	
Chloroform	ug/kg	ND	5.1	12/21/13 13:19	
Chloromethane	ug/kg	ND	10.2	12/21/13 13:19	
cis-1,2-Dichloroethene	ug/kg	ND	5.1	12/21/13 13:19	
cis-1,3-Dichloropropene	ug/kg	ND	5.1	12/21/13 13:19	
Dibromochloromethane	ug/kg	ND	5.1	12/21/13 13:19	
Dibromomethane	ug/kg	ND	5.1	12/21/13 13:19	
Dichlorodifluoromethane	ug/kg	ND	10.2	12/21/13 13:19	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

METHOD BLANK: 1111204

Matrix: Solid

Associated Lab Samples: 92184006012, 92184006017, 92184006018, 92184006019, 92184006020, 92184006021, 92184006022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	ND	5.1	12/21/13 13:19	
Ethylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
Hexachloro-1,3-butadiene	ug/kg	ND	5.1	12/21/13 13:19	
Isopropylbenzene (Cumene)	ug/kg	ND	5.1	12/21/13 13:19	
m&p-Xylene	ug/kg	ND	10.2	12/21/13 13:19	
Methyl-tert-butyl ether	ug/kg	ND	5.1	12/21/13 13:19	
Methylene Chloride	ug/kg	ND	20.4	12/21/13 13:19	
n-Butylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
n-Propylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
Naphthalene	ug/kg	ND	5.1	12/21/13 13:19	
o-Xylene	ug/kg	ND	5.1	12/21/13 13:19	
p-Isopropyltoluene	ug/kg	ND	5.1	12/21/13 13:19	
sec-Butylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
Styrene	ug/kg	ND	5.1	12/21/13 13:19	
tert-Butylbenzene	ug/kg	ND	5.1	12/21/13 13:19	
Tetrachloroethene	ug/kg	ND	5.1	12/21/13 13:19	
Toluene	ug/kg	ND	5.1	12/21/13 13:19	
trans-1,2-Dichloroethene	ug/kg	ND	5.1	12/21/13 13:19	
trans-1,3-Dichloropropene	ug/kg	ND	5.1	12/21/13 13:19	
Trichloroethene	ug/kg	ND	5.1	12/21/13 13:19	
Trichlorofluoromethane	ug/kg	ND	5.1	12/21/13 13:19	
Vinyl acetate	ug/kg	ND	50.9	12/21/13 13:19	
Vinyl chloride	ug/kg	ND	10.2	12/21/13 13:19	
Xylene (Total)	ug/kg	ND	10.2	12/21/13 13:19	
1,2-Dichloroethane-d4 (S)	%	122	70-132	12/21/13 13:19	
4-Bromofluorobenzene (S)	%	100	70-130	12/21/13 13:19	
Toluene-d8 (S)	%	97	70-130	12/21/13 13:19	

LABORATORY CONTROL SAMPLE: 1111205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	53.9	53.6	99	70-131	
1,1,1-Trichloroethane	ug/kg	53.9	59.5	110	70-141	
1,1,2,2-Tetrachloroethane	ug/kg	53.9	55.9	104	70-130	
1,1,2-Trichloroethane	ug/kg	53.9	55.0	102	70-132	
1,1-Dichloroethane	ug/kg	53.9	58.9	109	70-143	
1,1-Dichloroethene	ug/kg	53.9	57.4	107	70-137	
1,1-Dichloropropene	ug/kg	53.9	61.4	114	70-135	
1,2,3-Trichlorobenzene	ug/kg	53.9	56.8	105	69-153	
1,2,3-Trichloropropane	ug/kg	53.9	55.6	103	70-130	
1,2,4-Trichlorobenzene	ug/kg	53.9	54.2	101	55-171	
1,2,4-Trimethylbenzene	ug/kg	53.9	59.6	111	70-149	
1,2-Dibromo-3-chloropropane	ug/kg	53.9	55.5	103	68-141	
1,2-Dibromoethane (EDB)	ug/kg	53.9	55.8	104	70-130	
1,2-Dichlorobenzene	ug/kg	53.9	53.6	99	70-140	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1111205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/kg	53.9	59.0	110	70-137	
1,2-Dichloropropane	ug/kg	53.9	55.8	104	70-133	
1,3,5-Trimethylbenzene	ug/kg	53.9	58.8	109	70-143	
1,3-Dichlorobenzene	ug/kg	53.9	53.6	99	70-144	
1,3-Dichloropropane	ug/kg	53.9	59.1	110	70-132	
1,4-Dichlorobenzene	ug/kg	53.9	54.3	101	70-142	
2,2-Dichloropropane	ug/kg	53.9	60.9	113	68-152	
2-Butanone (MEK)	ug/kg	108	114	106	70-149	
2-Chlorotoluene	ug/kg	53.9	55.3	103	70-141	
2-Hexanone	ug/kg	108	102	95	70-149	
4-Chlorotoluene	ug/kg	53.9	58.7	109	70-149	
4-Methyl-2-pentanone (MIBK)	ug/kg	108	103	96	70-153	
Acetone	ug/kg	108	98.4J	91	70-157	
Benzene	ug/kg	53.9	57.3	106	70-130	
Bromobenzene	ug/kg	53.9	58.0	108	70-141	
Bromochloromethane	ug/kg	53.9	52.0	96	70-149	
Bromodichloromethane	ug/kg	53.9	55.6	103	70-130	
Bromoform	ug/kg	53.9	51.3	95	70-131	
Bromomethane	ug/kg	53.9	65.2	121	64-136	
Carbon tetrachloride	ug/kg	53.9	53.2	99	70-154	
Chlorobenzene	ug/kg	53.9	56.0	104	70-135	
Chloroethane	ug/kg	53.9	62.7	116	68-151	
Chloroform	ug/kg	53.9	59.8	111	70-130	
Chloromethane	ug/kg	53.9	64.3	119	70-132	
cis-1,2-Dichloroethene	ug/kg	53.9	56.3	104	70-140	
cis-1,3-Dichloropropene	ug/kg	53.9	56.1	104	70-137	
Dibromochloromethane	ug/kg	53.9	53.8	100	70-130	
Dibromomethane	ug/kg	53.9	54.4	101	70-136	
Dichlorodifluoromethane	ug/kg	53.9	59.7	111	36-148	
Diisopropyl ether	ug/kg	53.9	55.9	104	70-139	
Ethylbenzene	ug/kg	53.9	55.3	103	70-137	
Hexachloro-1,3-butadiene	ug/kg	53.9	58.5	109	70-145	
Isopropylbenzene (Cumene)	ug/kg	53.9	57.3	106	70-141	
m&p-Xylene	ug/kg	108	112	104	70-140	
Methyl-tert-butyl ether	ug/kg	53.9	61.3	114	45-150	
Methylene Chloride	ug/kg	53.9	54.1	100	70-133	
n-Butylbenzene	ug/kg	53.9	58.9	109	65-155	
n-Propylbenzene	ug/kg	53.9	58.9	109	70-148	
Naphthalene	ug/kg	53.9	53.2	99	70-148	
o-Xylene	ug/kg	53.9	55.9	104	70-141	
p-Isopropyltoluene	ug/kg	53.9	56.2	104	70-148	
sec-Butylbenzene	ug/kg	53.9	59.0	110	70-145	
Styrene	ug/kg	53.9	56.7	105	70-138	
tert-Butylbenzene	ug/kg	53.9	56.3	104	70-143	
Tetrachloroethene	ug/kg	53.9	51.8	96	70-140	
Toluene	ug/kg	53.9	52.5	97	70-130	
trans-1,2-Dichloroethene	ug/kg	53.9	58.4	108	70-136	
trans-1,3-Dichloropropene	ug/kg	53.9	57.0	106	70-138	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**LABORATORY CONTROL SAMPLE:** 1111205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/kg	53.9	51.8	96	70-132	
Trichlorofluoromethane	ug/kg	53.9	64.3	119	69-134	
Vinyl acetate	ug/kg	108	132	123	24-161	
Vinyl chloride	ug/kg	53.9	59.1	110	55-140	
Xylene (Total)	ug/kg	162	168	104	70-141	
1,2-Dichloroethane-d4 (S)	%			110	70-132	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			99	70-130	

**MATRIX SPIKE SAMPLE:** 1111382

Parameter	Units	92184231005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg		ND	30.1	24.2	81	49-180
Benzene	ug/kg		ND	30.1	27.7	92	50-166
Chlorobenzene	ug/kg		ND	30.1	30.8	103	43-169
Toluene	ug/kg		ND	30.1	26.9	90	52-163
Trichloroethene	ug/kg		ND	30.1	27.4	91	49-167
1,2-Dichloroethane-d4 (S)	%				129	70-132	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				97	70-130	

**SAMPLE DUPLICATE:** 1111381

Parameter	Units	92184006019 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,1-Trichloroethane	ug/kg		ND	ND	
1,1,2,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,2-Trichloroethane	ug/kg		ND	ND	
1,1-Dichloroethane	ug/kg		ND	ND	
1,1-Dichloroethene	ug/kg		ND	ND	
1,1-Dichloropropene	ug/kg		ND	ND	
1,2,3-Trichlorobenzene	ug/kg		ND	ND	
1,2,3-Trichloropropane	ug/kg		ND	ND	
1,2,4-Trichlorobenzene	ug/kg		ND	ND	
1,2,4-Trimethylbenzene	ug/kg		ND	ND	
1,2-Dibromo-3-chloropropane	ug/kg		ND	ND	
1,2-Dibromoethane (EDB)	ug/kg		ND	ND	
1,2-Dichlorobenzene	ug/kg		ND	ND	
1,2-Dichloroethane	ug/kg		ND	ND	
1,2-Dichloropropane	ug/kg		ND	ND	
1,3,5-Trimethylbenzene	ug/kg		ND	ND	
1,3-Dichlorobenzene	ug/kg		ND	ND	
1,3-Dichloropropane	ug/kg		ND	ND	
1,4-Dichlorobenzene	ug/kg		ND	ND	
2,2-Dichloropropane	ug/kg		ND	ND	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1111381

Parameter	Units	Result	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	ND	77.1J		
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)	%	122	123	10	
4-Bromofluorobenzene (S)	%	97	100	12	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1111381

Parameter	Units	Result	Dup Result	RPD	Qualifiers
Toluene-d8 (S)	%	98	97	8	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch:	MSV/25343	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184006024		

METHOD BLANK: 1111846                          Matrix: Solid

Associated Lab Samples: 92184006024

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

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

METHOD BLANK: 1111846

Matrix: Solid

Associated Lab Samples: 92184006024

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

LABORATORY CONTROL SAMPLE: 1111847

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

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1111847

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

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**LABORATORY CONTROL SAMPLE:** 1111847

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

**MATRIX SPIKE SAMPLE:** 1112266

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

**SAMPLE DUPLICATE:** 1112265

Parameter	Units	92184006024 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,1-Trichloroethane	ug/kg		ND	ND	
1,1,2,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,2-Trichloroethane	ug/kg		ND	ND	
1,1-Dichloroethane	ug/kg		ND	ND	
1,1-Dichloroethene	ug/kg		ND	ND	
1,1-Dichloropropene	ug/kg		ND	ND	
1,2,3-Trichlorobenzene	ug/kg		ND	ND	
1,2,3-Trichloropropane	ug/kg		ND	ND	
1,2,4-Trichlorobenzene	ug/kg		ND	ND	
1,2,4-Trimethylbenzene	ug/kg		ND	ND	
1,2-Dibromo-3-chloropropane	ug/kg		ND	ND	
1,2-Dibromoethane (EDB)	ug/kg		ND	ND	
1,2-Dichlorobenzene	ug/kg		ND	ND	
1,2-Dichloroethane	ug/kg		ND	ND	
1,2-Dichloropropane	ug/kg		ND	ND	
1,3,5-Trimethylbenzene	ug/kg		ND	ND	
1,3-Dichlorobenzene	ug/kg		ND	ND	
1,3-Dichloropropane	ug/kg		ND	ND	
1,4-Dichlorobenzene	ug/kg		ND	ND	
2,2-Dichloropropane	ug/kg		ND	ND	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1112265

Parameter	Units	92184006024	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	228	96.2	81	A+,R1
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	110	106	16	
4-Bromofluorobenzene (S)	%	87	92	8	

## REPORT OF LABORATORY ANALYSIS

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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1112265

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

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch:	MSV/25355	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92184006023		

METHOD BLANK: 1112341 Matrix: Solid

Associated Lab Samples: 92184006023

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

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

METHOD BLANK: 1112341

Matrix: Solid

Associated Lab Samples: 92184006023

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

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1112342

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

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

**LABORATORY CONTROL SAMPLE:** 1112342

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

**MATRIX SPIKE SAMPLE:** 1112885

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

**SAMPLE DUPLICATE:** 1112884

Parameter	Units	92184127002 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,1-Trichloroethane	ug/kg		ND	ND	
1,1,2,2-Tetrachloroethane	ug/kg		ND	ND	
1,1,2-Trichloroethane	ug/kg		ND	ND	
1,1-Dichloroethane	ug/kg		ND	ND	
1,1-Dichloroethene	ug/kg		ND	ND	
1,1-Dichloropropene	ug/kg		ND	ND	
1,2,3-Trichlorobenzene	ug/kg		ND	ND	
1,2,3-Trichloropropane	ug/kg		ND	ND	
1,2,4-Trichlorobenzene	ug/kg		ND	ND	
1,2,4-Trimethylbenzene	ug/kg		ND	ND	
1,2-Dibromo-3-chloropropane	ug/kg		ND	ND	
1,2-Dibromoethane (EDB)	ug/kg		ND	ND	
1,2-Dichlorobenzene	ug/kg		ND	ND	
1,2-Dichloroethane	ug/kg		ND	ND	
1,2-Dichloropropane	ug/kg		ND	ND	
1,3,5-Trimethylbenzene	ug/kg		ND	ND	
1,3-Dichlorobenzene	ug/kg		ND	ND	
1,3-Dichloropropane	ug/kg		ND	ND	
1,4-Dichlorobenzene	ug/kg		ND	ND	
2,2-Dichloropropane	ug/kg		ND	ND	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1112884

Parameter	Units	92184127002	Dup Result	RPD	Qualifiers
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	218	170	25	A+
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		IO
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	118	143	21	S2
4-Bromofluorobenzene (S)	%	92	83	8	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

SAMPLE DUPLICATE: 1112884

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

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch:	OEXT/25264	Analysis Method:	EPA 8015 Modified
QC Batch Method:	EPA 3546	Analysis Description:	8015 Solid GCSV
Associated Lab Samples: 92184006001, 92184006002, 92184006003, 92184006004, 92184006005, 92184006006, 92184006007, 92184006008, 92184006009, 92184006013, 92184006014, 92184006015, 92184006016			

METHOD BLANK: 1109337		Matrix: Solid			
Associated Lab Samples:		92184006001, 92184006002, 92184006003, 92184006004, 92184006005, 92184006006, 92184006007, 92184006008, 92184006009, 92184006013, 92184006014, 92184006015, 92184006016			
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	12/20/13 23:31	
n-Pentacosane (S)	%	75	41-119	12/20/13 23:31	

LABORATORY CONTROL SAMPLE: 1109338		1109339					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
Diesel Components	mg/kg	66.7	51.1	77	49-113		
n-Pentacosane (S)	%			89	41-119		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1109339			1109340								
Parameter	Units	92184006001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Components	mg/kg	24.2	82.3	82.3	52.6	47.9	35	29	10-146	9	
n-Pentacosane (S)	%						68	60	41-119		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: OEXT/25257

Analysis Method: EPA 8270

QC Batch Method: EPA 3546

Analysis Description: 8270 Solid MSSV Microwave

Associated Lab Samples: 92184006010, 92184006011, 92184006012, 92184006017, 92184006018, 92184006019, 92184006020,  
92184006021, 92184006022, 92184006023, 92184006024

METHOD BLANK: 1109029

Matrix: Solid

Associated Lab Samples: 92184006010, 92184006011, 92184006012, 92184006017, 92184006018, 92184006019, 92184006020,  
92184006021, 92184006022, 92184006023, 92184006024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	12/20/13 14:41	
1,2-Dichlorobenzene	ug/kg	ND	330	12/20/13 14:41	
1,3-Dichlorobenzene	ug/kg	ND	330	12/20/13 14:41	
1,4-Dichlorobenzene	ug/kg	ND	330	12/20/13 14:41	
1-Methylnaphthalene	ug/kg	ND	330	12/20/13 14:41	
2,4,5-Trichlorophenol	ug/kg	ND	330	12/20/13 14:41	
2,4,6-Trichlorophenol	ug/kg	ND	330	12/20/13 14:41	
2,4-Dichlorophenol	ug/kg	ND	330	12/20/13 14:41	
2,4-Dimethylphenol	ug/kg	ND	330	12/20/13 14:41	
2,4-Dinitrophenol	ug/kg	ND	1650	12/20/13 14:41	
2,4-Dinitrotoluene	ug/kg	ND	330	12/20/13 14:41	
2,6-Dinitrotoluene	ug/kg	ND	330	12/20/13 14:41	
2-Chloronaphthalene	ug/kg	ND	330	12/20/13 14:41	
2-Chlorophenol	ug/kg	ND	330	12/20/13 14:41	
2-Methylnaphthalene	ug/kg	ND	330	12/20/13 14:41	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	12/20/13 14:41	
2-Nitroaniline	ug/kg	ND	1650	12/20/13 14:41	
2-Nitrophenol	ug/kg	ND	330	12/20/13 14:41	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	12/20/13 14:41	
3,3'-Dichlorobenzidine	ug/kg	ND	1650	12/20/13 14:41	
3-Nitroaniline	ug/kg	ND	1650	12/20/13 14:41	
4,6-Dinitro-2-methylphenol	ug/kg	ND	660	12/20/13 14:41	
4-Bromophenylphenyl ether	ug/kg	ND	330	12/20/13 14:41	
4-Chloro-3-methylphenol	ug/kg	ND	660	12/20/13 14:41	
4-Chloroaniline	ug/kg	ND	1650	12/20/13 14:41	
4-Chlorophenylphenyl ether	ug/kg	ND	330	12/20/13 14:41	
4-Nitroaniline	ug/kg	ND	660	12/20/13 14:41	
4-Nitrophenol	ug/kg	ND	1650	12/20/13 14:41	
Acenaphthene	ug/kg	ND	330	12/20/13 14:41	
Acenaphthylene	ug/kg	ND	330	12/20/13 14:41	
Aniline	ug/kg	ND	330	12/20/13 14:41	
Anthracene	ug/kg	ND	330	12/20/13 14:41	
Benzo(a)anthracene	ug/kg	ND	330	12/20/13 14:41	
Benzo(a)pyrene	ug/kg	ND	330	12/20/13 14:41	
Benzo(b)fluoranthene	ug/kg	ND	330	12/20/13 14:41	
Benzo(g,h,i)perylene	ug/kg	ND	330	12/20/13 14:41	
Benzo(k)fluoranthene	ug/kg	ND	330	12/20/13 14:41	
Benzoic Acid	ug/kg	ND	1650	12/20/13 14:41	
Benzyl alcohol	ug/kg	ND	660	12/20/13 14:41	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	12/20/13 14:41	
bis(2-Chloroethyl) ether	ug/kg	ND	330	12/20/13 14:41	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

METHOD BLANK: 1109029

Matrix: Solid

Associated Lab Samples: 92184006010, 92184006011, 92184006012, 92184006017, 92184006018, 92184006019, 92184006020,  
92184006021, 92184006022, 92184006023, 92184006024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	12/20/13 14:41	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	12/20/13 14:41	
Butylbenzylphthalate	ug/kg	ND	330	12/20/13 14:41	
Chrysene	ug/kg	ND	330	12/20/13 14:41	
Di-n-butylphthalate	ug/kg	ND	330	12/20/13 14:41	
Di-n-octylphthalate	ug/kg	ND	330	12/20/13 14:41	
Dibenz(a,h)anthracene	ug/kg	ND	330	12/20/13 14:41	
Dibenzofuran	ug/kg	ND	330	12/20/13 14:41	
Diethylphthalate	ug/kg	ND	330	12/20/13 14:41	
Dimethylphthalate	ug/kg	ND	330	12/20/13 14:41	
Fluoranthene	ug/kg	ND	330	12/20/13 14:41	
Fluorene	ug/kg	ND	330	12/20/13 14:41	
Hexachloro-1,3-butadiene	ug/kg	ND	330	12/20/13 14:41	
Hexachlorobenzene	ug/kg	ND	330	12/20/13 14:41	
Hexachlorocyclopentadiene	ug/kg	ND	330	12/20/13 14:41	
Hexachloroethane	ug/kg	ND	330	12/20/13 14:41	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	12/20/13 14:41	
Isophorone	ug/kg	ND	330	12/20/13 14:41	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	12/20/13 14:41	
N-Nitrosodimethylamine	ug/kg	ND	330	12/20/13 14:41	
N-Nitrosodiphenylamine	ug/kg	ND	330	12/20/13 14:41	
Naphthalene	ug/kg	ND	330	12/20/13 14:41	
Nitrobenzene	ug/kg	ND	330	12/20/13 14:41	
Pentachlorophenol	ug/kg	ND	1650	12/20/13 14:41	
Phenanthrene	ug/kg	ND	330	12/20/13 14:41	
Phenol	ug/kg	ND	330	12/20/13 14:41	
Pyrene	ug/kg	ND	330	12/20/13 14:41	
2,4,6-Tribromophenol (S)	%	39	27-110	12/20/13 14:41	
2-Fluorobiphenyl (S)	%	43	30-110	12/20/13 14:41	
2-Fluorophenol (S)	%	46	13-110	12/20/13 14:41	
Nitrobenzene-d5 (S)	%	41	23-110	12/20/13 14:41	
Phenol-d6 (S)	%	48	22-110	12/20/13 14:41	
Terphenyl-d14 (S)	%	68	28-110	12/20/13 14:41	

LABORATORY CONTROL SAMPLE: 1109030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	682	41	39-101	
1,2-Dichlorobenzene	ug/kg	1670	720	43	36-110	
1,3-Dichlorobenzene	ug/kg	1670	684	41	35-110	
1,4-Dichlorobenzene	ug/kg	1670	711	43	35-110	
1-Methylnaphthalene	ug/kg	1670	797	48	45-105	
2,4,5-Trichlorophenol	ug/kg	1670	937	56	48-109	
2,4,6-Trichlorophenol	ug/kg	1670	782	47	45-111	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1109030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dichlorophenol	ug/kg	1670	744	45	51-116	L2
2,4-Dimethylphenol	ug/kg	1670	819	49	42-103	
2,4-Dinitrophenol	ug/kg	8330	4990	60	28-103	
2,4-Dinitrotoluene	ug/kg	1670	1200	72	46-114	
2,6-Dinitrotoluene	ug/kg	1670	1070	64	48-112	
2-Chloronaphthalene	ug/kg	1670	699	42	44-105	L2
2-Chlorophenol	ug/kg	1670	812	49	36-110	
2-Methylnaphthalene	ug/kg	1670	834	50	39-112	
2-Methylphenol(o-Cresol)	ug/kg	1670	842	51	39-101	
2-Nitroaniline	ug/kg	3330	2140	64	44-111	
2-Nitrophenol	ug/kg	1670	732	44	41-100	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	856	51	43-103	
3,3'-Dichlorobenzidine	ug/kg	3330	2090	63	10-150	
3-Nitroaniline	ug/kg	3330	2240	67	35-110	
4,6-Dinitro-2-methylphenol	ug/kg	3330	2080	62	38-118	
4-Bromophenylphenyl ether	ug/kg	1670	972	58	47-115	
4-Chloro-3-methylphenol	ug/kg	3330	1750	53	43-127	
4-Chloroaniline	ug/kg	3330	1690	51	34-109	
4-Chlorophenylphenyl ether	ug/kg	1670	936	56	44-115	
4-Nitroaniline	ug/kg	3330	2430	73	37-111	
4-Nitrophenol	ug/kg	8330	5780	69	21-152	
Acenaphthene	ug/kg	1670	829	50	38-117	
Acenaphthylene	ug/kg	1670	836	50	46-107	
Aniline	ug/kg	1670	775	47	29-110	
Anthracene	ug/kg	1670	1100	66	50-110	
Benzo(a)anthracene	ug/kg	1670	1100	66	47-116	
Benzo(a)pyrene	ug/kg	1670	1180	71	47-106	
Benzo(b)fluoranthene	ug/kg	1670	1090	65	47-109	
Benzo(g,h,i)perylene	ug/kg	1670	1120	67	39-115	
Benzo(k)fluoranthene	ug/kg	1670	1080	65	45-117	
Benzoic Acid	ug/kg	8330	3130	38	16-110	
Benzyl alcohol	ug/kg	3330	1440	43	38-105	
bis(2-Chloroethoxy)methane	ug/kg	1670	778	47	39-110	
bis(2-Chloroethyl) ether	ug/kg	1670	817	49	19-119	
bis(2-Chloroisopropyl) ether	ug/kg	1670	792	48	21-110	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1010	61	35-116	
Butylbenzylphthalate	ug/kg	1670	1030	62	38-110	
Chrysene	ug/kg	1670	1150	69	49-110	
Di-n-butylphthalate	ug/kg	1670	1030	62	43-109	
Di-n-octylphthalate	ug/kg	1670	1040	62	37-109	
Dibenz(a,h)anthracene	ug/kg	1670	1170	70	43-116	
Dibenzofuran	ug/kg	1670	793	48	45-106	
Diethylphthalate	ug/kg	1670	1000	60	41-114	
Dimethylphthalate	ug/kg	1670	958	57	43-110	
Fluoranthene	ug/kg	1670	1170	70	50-114	
Fluorene	ug/kg	1670	943	57	46-114	
Hexachloro-1,3-butadiene	ug/kg	1670	681	41	28-111	
Hexachlorobenzene	ug/kg	1670	928	56	46-120	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

LABORATORY CONTROL SAMPLE: 1109030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hexachlorocyclopentadiene	ug/kg	1670	746	45	18-119	
Hexachloroethane	ug/kg	1670	690	41	33-110	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1190	72	42-115	
Isophorone	ug/kg	1670	872	52	44-109	
N-Nitroso-di-n-propylamine	ug/kg	1670	738	44	43-104	
N-Nitrosodimethylamine	ug/kg	1670	695	42	29-110	
N-Nitrosodiphenylamine	ug/kg	1670	880	53	48-113	
Naphthalene	ug/kg	1670	799	48	41-110	
Nitrobenzene	ug/kg	1670	821	49	38-110	
Pentachlorophenol	ug/kg	3330	1920	58	32-128	
Phenanthrene	ug/kg	1670	1070	64	50-110	
Phenol	ug/kg	1670	840	50	28-106	
Pyrene	ug/kg	1670	1080	65	45-114	
2,4,6-Tribromophenol (S)	%			68	27-110	
2-Fluorobiphenyl (S)	%			48	30-110	
2-Fluorophenol (S)	%			49	13-110	
Nitrobenzene-d5 (S)	%			46	23-110	
Phenol-d6 (S)	%			51	22-110	
Terphenyl-d14 (S)	%			64	28-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1109031 1109032

Parameter	Units	92183618003		MS Spike Conc.		MSD Spike Conc.		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	Conc.	Result	Conc.	Result	Conc.					
1,2,4-Trichlorobenzene	ug/kg	ND	2240	2240	994	955	44	43	18-119	4		
1,2-Dichlorobenzene	ug/kg	ND	2240	2240	1100	1070	49	48	50-110	3	M1	
1,3-Dichlorobenzene	ug/kg	ND	2240	2240	1030	1040	46	47	27-110	1		
1,4-Dichlorobenzene	ug/kg	ND	2240	2240	1060	1080	47	48	28-110	2		
1-Methylnaphthalene	ug/kg	ND	2240	2240	1320	1100	59	49	24-116	18		
2,4,5-Trichlorophenol	ug/kg	ND	2240	2240	1260	1000	56	45	28-110	23		
2,4,6-Trichlorophenol	ug/kg	ND	2240	2240	1030	761	46	34	17-117	30		
2,4-Dichlorophenol	ug/kg	ND	2240	2240	1110	810	49	36	21-128	31		
2,4-Dimethylphenol	ug/kg	ND	2240	2240	874	560	39	25	10-120	44		
2,4-Dinitrophenol	ug/kg	ND	11200	11200	6510	5570	58	50	10-107	16		
2,4-Dinitrotoluene	ug/kg	ND	2240	2240	1580	1180	71	53	36-109	29		
2,6-Dinitrotoluene	ug/kg	ND	2240	2240	1490	1170	67	52	32-110	24		
2-Chloronaphthalene	ug/kg	ND	2240	2240	975	863	44	39	30-107	12		
2-Chlorophenol	ug/kg	ND	2240	2240	1150	972	52	43	14-106	17		
2-Methylnaphthalene	ug/kg	ND	2240	2240	1360	1160	61	52	10-135	16		
2-Methylphenol(o-Cresol)	ug/kg	ND	2240	2240	1110	720	50	32	10-124	43	2g,R1	
2-Nitroaniline	ug/kg	ND	4460	4460	3090	2770	69	62	26-116	11		
2-Nitrophenol	ug/kg	ND	2240	2240	1170	1080	52	48	28-103	8		
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	2240	2240	1200	769	54	34	10-109	44		
3,3'-Dichlorobenzidine	ug/kg	ND	4460	4460	1730J	278J	39	6	10-150		M0	
3-Nitroaniline	ug/kg	ND	4460	4460	3010	1660J	67	37	22-110			
4,6-Dinitro-2-methylphenol	ug/kg	ND	4460	4460	2650	2040	59	46	13-121	26		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Parameter	Units	92183618003		MS Spike		MSD Spike		MS		MSD		% Rec	RPD	Qual
		Result	Conc.	Conc.	Result	MSD	Result	% Rec	MSD	% Rec	Limits			
4-Bromophenylphenyl ether	ug/kg	ND	2240	2240	1220	929	55	42	31-109	27				
4-Chloro-3-methylphenol	ug/kg	ND	4460	4460	2620	1650	59	37	13-128	46				
4-Chloroaniline	ug/kg	ND	4460	4460	2460	1790J	55	40	18-102					
4-Chlorophenylphenyl ether	ug/kg	ND	2240	2240	1270	968	57	43	29-112	27				
4-Nitroaniline	ug/kg	ND	4460	4460	3170	1470	71	33	16-111	74				
4-Nitrophenol	ug/kg	ND	11200	11200	7020	6250	63	56	14-135	12				
Acenaphthene	ug/kg	ND	2240	2240	1170	978	53	44	26-114	18				
Acenaphthylene	ug/kg	ND	2240	2240	1230	1010	55	45	32-108	19				
Aniline	ug/kg	ND	2240	2240	618	467	28	21	10-107	28				
Anthracene	ug/kg	ND	2240	2240	1330	975	60	44	32-111	31				
Benzo(a)anthracene	ug/kg	ND	2240	2240	1290	870	58	39	25-117	39				
Benzo(a)pyrene	ug/kg	ND	2240	2240	1300	816	58	37	25-106	46				
Benzo(b)fluoranthene	ug/kg	ND	2240	2240	1210	774	54	35	24-110	44				
Benzo(g,h,i)perylene	ug/kg	ND	2240	2240	1140	792	51	35	19-112	36				
Benzo(k)fluoranthene	ug/kg	ND	2240	2240	1190	791	53	35	24-114	40				
Benzoic Acid	ug/kg	ND	11200	11200	1960J	2610	18	23	10-110					
Benzyl alcohol	ug/kg	ND	4460	4460	2690	2370	60	53	24-106	13				
bis(2-Chloroethoxy)methane	ug/kg	ND	2240	2240	1170	1040	53	47	13-119	12				
bis(2-Chloroethyl) ether	ug/kg	ND	2240	2240	1230	1210	55	54	10-134	2				
bis(2-Chloroisopropyl) ether	ug/kg	ND	2240	2240	1220	1130	55	51	10-113	7				
bis(2-Ethylhexyl)phthalate	ug/kg	ND	2240	2240	1210	756	51	30	10-125	46				
Butylbenzylphthalate	ug/kg	ND	2240	2240	1260	805	56	36	18-110	44				
Chrysene	ug/kg	ND	2240	2240	1330	912	60	41	30-110	37				
Di-n-butylphthalate	ug/kg	ND	2240	2240	1210	808	54	36	19-112	39				
Di-n-octylphthalate	ug/kg	ND	2240	2240	1280	793	57	35	17-105	47				
Dibenz(a,h)anthracene	ug/kg	ND	2240	2240	1240	814	55	36	23-111	41				
Dibenzofuran	ug/kg	ND	2240	2240	1090	877	49	39	35-103	22				
Diethylphthalate	ug/kg	ND	2240	2240	1250	900	56	40	27-113	32				
Dimethylphthalate	ug/kg	ND	2240	2240	1260	992	56	44	26-111	24				
Fluoranthene	ug/kg	ND	2240	2240	1390	974	62	44	33-109	35				
Fluorene	ug/kg	ND	2240	2240	1300	1010	58	45	32-113	26				
Hexachloro-1,3-butadiene	ug/kg	ND	2240	2240	915	919	41	41	16-116	0				
Hexachlorobenzene	ug/kg	ND	2240	2240	1090	872	49	39	27-120	22				
Hexachlorocyclopentadiene	ug/kg	ND	2240	2240	859	782	38	35	10-108	9				
Hexachloroethane	ug/kg	ND	2240	2240	1030	1010	46	45	10-117	2				
Indeno(1,2,3-cd)pyrene	ug/kg	ND	2240	2240	1250	817	56	37	10-122	41				
Isophorone	ug/kg	ND	2240	2240	1560	1300	70	58	28-114	18				
N-Nitroso-di-n-propylamine	ug/kg	ND	2240	2240	1400	1100	62	49	27-113	24				
N-Nitrosodimethylamine	ug/kg	ND	2240	2240	973	994	44	44	10-109	2				
N-Nitrosodiphenylamine	ug/kg	ND	2240	2240	961	611	43	27	10-128	45				
Naphthalene	ug/kg	ND	2240	2240	1170	1110	53	50	25-110	6				
Nitrobenzene	ug/kg	ND	2240	2240	1160	1170	52	52	18-114	1				
Pentachlorophenol	ug/kg	ND	4460	4460	2530	1730J	57	39	10-122					
Phenanthrene	ug/kg	ND	2240	2240	1320	996	59	45	30-114	28				
Phenol	ug/kg	ND	2240	2240	1050	805	47	36	11-102	26				
Pyrene	ug/kg	ND	2240	2240	1320	936	59	42	25-116	34				
2,4,6-Tribromophenol (S)	%						53	33	27-110					

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Parameter	Units	92183618003		MS Spike Conc.		MSD Spike Conc.		MS Result		MSD % Rec		% Rec	
													RPD
2-Fluorobiphenyl (S)	%									47	41	30-110	
2-Fluorophenol (S)	%									44	37	13-110	
Nitrobenzene-d5 (S)	%									50	47	23-110	
Phenol-d6 (S)	%									51	38	22-110	
Terphenyl-d14 (S)	%									56	38	28-110	

## 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 Kincey Ave. Suite 100  
Huntersville, NC 28078  
(704)875-9092

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: PMST/6106 Analysis Method: ASTM D2974-87

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

Associated Lab Samples: 92184006001, 92184006002, 92184006003, 92184006004, 92184006005, 92184006006, 92184006007, 92184006008, 92184006009, 92184006010, 92184006011, 92184006012, 92184006013, 92184006014, 92184006015, 92184006016, 92184006017, 92184006018

SAMPLE DUPLICATE: 1109483

Parameter	Units	92183839001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	14.9	14.8	1	

SAMPLE DUPLICATE: 1109484

Parameter	Units	92184006018 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	11.6	12.3	6	

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

QC Batch: PMST/6109 Analysis Method: ASTM D2974-87

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

Associated Lab Samples: 92184006019, 92184006020, 92184006021, 92184006022, 92184006023, 92184006024

SAMPLE DUPLICATE: 1110278

Parameter	Units	92184075013 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	14.3	16.2	12	

SAMPLE DUPLICATE: 1110279

Parameter	Units	92184006024 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	22.6	23.2	3	

## REPORT OF LABORATORY ANALYSIS

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

## QUALIFIERS

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

---

### 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.
- 2g This flag applies to all compounds with RPD greater than 30%.
- 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.
- L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.
- S0 Surrogate recovery outside laboratory 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

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

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92184006001	S-18-3	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006002	S-18-2	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006003	S-18-1	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006004	S-19-1	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006005	S-20-2	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006006	S-20-1	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006007	S-11-1	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006008	S-11-2	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006009	S-11-3	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006013	S-12-1	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006014	S-12-2	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006015	S-12-4	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006016	S-12-3	EPA 3546	OEXT/25264	EPA 8015 Modified	GCSV/16299
92184006001	S-18-3	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006002	S-18-2	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006003	S-18-1	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006004	S-19-1	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006005	S-20-2	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006006	S-20-1	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006007	S-11-1	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006008	S-11-2	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006009	S-11-3	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006013	S-12-1	EPA 5035A/5030B	GCV/7649	EPA 8015 Modified	GCV/7655
92184006014	S-12-2	EPA 5035A/5030B	GCV/7653	EPA 8015 Modified	GCV/7657
92184006015	S-12-4	EPA 5035A/5030B	GCV/7653	EPA 8015 Modified	GCV/7657
92184006016	S-12-3	EPA 5035A/5030B	GCV/7653	EPA 8015 Modified	GCV/7657
92184006010	S-13-1	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006011	S-13-2	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006012	S-15-1	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006017	S-12-5	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006018	S-12-6	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006019	S-12-7	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006020	S-12-8	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006021	S-12-9	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006022	S-8-1	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006023	S-8-2	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006024	S-8-5	EPA 3546	OEXT/25257	EPA 8270	MSSV/8587
92184006010	S-13-1	EPA 8260	MSV/25308		
92184006011	S-13-2	EPA 8260	MSV/25308		
92184006012	S-15-1	EPA 8260	MSV/25319		
92184006017	S-12-5	EPA 8260	MSV/25319		
92184006018	S-12-6	EPA 8260	MSV/25319		
92184006019	S-12-7	EPA 8260	MSV/25319		
92184006020	S-12-8	EPA 8260	MSV/25319		
92184006021	S-12-9	EPA 8260	MSV/25319		
92184006022	S-8-1	EPA 8260	MSV/25319		

## REPORT OF LABORATORY ANALYSIS

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

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NCDT01413 WBS33507.1.1

Pace Project No.: 92184006

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92184006023	S-8-2	EPA 8260	MSV/25355		
92184006024	S-8-5	EPA 8260	MSV/25343		
92184006001	S-18-3	ASTM D2974-87	PMST/6106		
92184006002	S-18-2	ASTM D2974-87	PMST/6106		
92184006003	S-18-1	ASTM D2974-87	PMST/6106		
92184006004	S-19-1	ASTM D2974-87	PMST/6106		
92184006005	S-20-2	ASTM D2974-87	PMST/6106		
92184006006	S-20-1	ASTM D2974-87	PMST/6106		
92184006007	S-11-1	ASTM D2974-87	PMST/6106		
92184006008	S-11-2	ASTM D2974-87	PMST/6106		
92184006009	S-11-3	ASTM D2974-87	PMST/6106		
92184006010	S-13-1	ASTM D2974-87	PMST/6106		
92184006011	S-13-2	ASTM D2974-87	PMST/6106		
92184006012	S-15-1	ASTM D2974-87	PMST/6106		
92184006013	S-12-1	ASTM D2974-87	PMST/6106		
92184006014	S-12-2	ASTM D2974-87	PMST/6106		
92184006015	S-12-4	ASTM D2974-87	PMST/6106		
92184006016	S-12-3	ASTM D2974-87	PMST/6106		
92184006017	S-12-5	ASTM D2974-87	PMST/6106		
92184006018	S-12-6	ASTM D2974-87	PMST/6106		
92184006019	S-12-7	ASTM D2974-87	PMST/6109		
92184006020	S-12-8	ASTM D2974-87	PMST/6109		
92184006021	S-12-9	ASTM D2974-87	PMST/6109		
92184006022	S-8-1	ASTM D2974-87	PMST/6109		
92184006023	S-8-2	ASTM D2974-87	PMST/6109		
92184006024	S-8-5	ASTM D2974-87	PMST/6109		

## REPORT OF LABORATORY ANALYSIS

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

Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: December 10, 2013 Page 1 of 2
Document Number: <b>F-CHR-CS-03-rev.13</b>	Issuing Authority: Pace Huntersville Quality Office

Client Name: General Eng. ConsultantsCourier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Optional

Proj. Due Date:

Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_Thermometer Used: IR Gun T1102 T1301 Type of Ice: Wet Blue None  Samples on ice, cooling process has begunTemp Correction Factor T1102: No Correction T1301: No CorrectionCorrected Cooler Temp.: 1.4 °C Biological Tissue is Frozen: Yes  No  N/AComments: \_\_\_\_\_ Date and Initials of person examining contents: 2012/14/13

Temp should be above freezing to 6°C

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: Jackson Co.

SCURF Review:	<u>AMB</u>	Date:	<u>12-19-13</u>
SRF Review:	<u>AMB</u>	Date:	<u>12-19-13</u>

WO# : 92184006



92184006

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



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

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 2
Company: <i>GEL Eng. of N.C.</i>	Report To: <i>A. Eyer</i>	Attention: <i>A. Eyer NCDOT</i>				
Address: <i>PO Box 14262 RTP N.C. 27709</i>	Copy To:	Company Name: <i>GEL</i>	REGULATORY AGENCY			
Email To: <i>ADE@gel.com</i>	Purchase Order No.: <i>WBS No. 33507.1.1</i>	Address:	<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> OTHER _____			
Phone: <i>919-323-8828</i>	Fax: <i></i>	Project Name: <i>B-4159</i>	Pace Quote Reference:			
Requested Due Date/TAT: <i>Normal TA</i>	Project Number: <i>NCDT01413</i>	Pace Project Manager:	Pace Profile #: <i>5994-2</i>	Site Location: <i>NC</i>	STATE: <i>NC</i>	

ITEM #	Section D Required Client Information		Matrix Codes MATRIX / CODE	Requested Analysis Filtered (Y/N)														
	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE			COLLECTED				Preservatives										
				COMPOSITE START		COMPOSITE END/GRAB												
	SAMPLE TYPE	MATRIX CODE		DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	Y/N
1	S-18-3	SL	G	12/16/13	1330			5									X X	GRD
2	S-18-2	SL	G		1350			5									X X	DIRO
3	S-18-1	SL	G		1420			5									X X	
4	S-19-1	SL	G		1525			5									X X	VOC's
5	S-20-2	SL	G		1555			5									X X	SVOC's
6	S-20-1	SL	G		1615			5									X X	
7	S-11-1	SL	G		1650			5									X X	
8	S-11-2	SL	G	12/17/13	0920			5									X X	
9	S-11-3	SL	G		0945			5									X X	
10	S-13-1	SL	G		1015			5									X X	
11	S-13-2	SL	G		1045			5									X X	
12	S-15-1	SL	G		1110			5									X X	
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS							
Stone Run Corp GEL			12/18/13 1400		Cook In PL		12/19/13 1115		1.4	Y	N	Y						

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Steve Rucker				
SIGNATURE of SAMPLER:	Steve Rucker	DATE Signed (MM/DD/YY):	12/18/13		

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

# CHAIN-OF-CUSTODY / Analytical Request Document

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

Page:	2 of 2
1727156	
REGULATORY AGENCY	
<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> OTHER _____	
Site Location	STATE: NC

## Section A

Required Client Information:

Company: GEL ENG. of N.C.

Address: PO Box 14262

RTP N.C. 27709

Email To: ADE@gel.com

Phone: \_\_\_\_\_

Requested Due Date/TAT: NORMAL TA

## Section B

Required Project Information:

Report To: A. Eyer

Copy To: \_\_\_\_\_

Purchase Order No.: WBS No. 33507.1.1

Project Name: B-4159

Project Number: NCDT01413

## Section C

Invoice Information:

Attention: NCDOT

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Pace Quote Reference: \_\_\_\_\_

Pace Project Manager: \_\_\_\_\_

Pace Profile #: \_\_\_\_\_

Page:

2 of 2

1727156

ITEM #	SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N ↓ Analysis Test ↓	Requested Analysis Filtered (Y/N)					
		COMPOSITE START		COMPOSITE END/GRAB											
		MATRIX CODE MATRIX / CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME					DATE	TIME				
1	S-12-1	SLG	12/17/13	1155						X X					Pace Project No./ Lab I.D. 92134006-013
2	S-12-2	SLG		1230						X X					014
3	S-12-4	SLG		1245						XX					015
4	S-12-3	SLG		1310						XX					016
5	S-12-5	SLG		1509						XX					017
6	S-12-6	SLG		1540						XX					018
7	S-12-7	SLG		1555						XX					019
8	S-12-8	SLG		1610						XX					020
9	S-12-9	SLG		1625						XX					021
10	S-8-1	SLG		1635						XX					022
11	S-8-2	SLG	12/18/13	0855						XX					023
12	S-8-5	SLG	12/18/13	0925						XX					024
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS					
		<i>StackRucker GEL</i>		12/18/13	1400	<i>Tank 101a</i>		12/19/13	1115	14	Y	10	Y		

ORIGINAL

## SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

*Steve Rucker*

SIGNATURE of SAMPLER:

*Steve Rucker*

DATE Signed  
(MM/DD/YY):

12/18/13

Temp in °C

Received on  
Ice (Y/N)

Custody  
Sealed Cooler  
(Y/N)

Samples intact  
(Y/N)