Preliminary Site Assessment

700 South Memorial Drive

Parcel #6, RDI LLC

BP Gas Station

Greenville, Pitt County, North Carolina

State Project No.: U-3315

WBS Element: 35781.1.2

February 22, 2013

Terracon Project No. 70127335

Prepared for:

North Carolina Department of Transportation (NCDOT)

Geotechnical Engineering Unit

Prepared by:

Terracon Consultants, Inc.

Raleigh, North Carolina

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February 22, 2013

North Carolina Department of Transportation
Attention: Mr. Gordon Box, LG
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, NC 27699

Re: Preliminary Site Assessment (PSA)
Parcel #6, RDI LLC
BP Gas Station
700 South Memorial Drive
Greenville, Pit County, North Carolina
Terracon Project No. 70127335
WBS Element: 35781.1.2

Dear Mr. Box:

Terracon Consultants, Inc. (Terracon) is pleased to submit a Preliminary Site Assessment (PSA) report for the above referenced site. This assessment was performed in accordance with our Proposal for Preliminary Site Assessment (Terracon Proposal No.P70127314) dated February August 7, 2012. This report includes the findings of the investigation, and provides our conclusions and recommendations.

Terracon appreciates the opportunity to provide these services to NCDOT. If you have any questions concerning this report or need additional information, please contact us at 919-873-2211.

Sincerely,

Terracon Consultants, Inc.

Prepared by:

Stephen Kerlin
Environmental Professional

Reviewed by:

for Christopher L. Corbitt, PG
Authorized Project Reviewer

Lori Hoffman, PE
Environmental Department Manager

PRELIMINARY SITE ASSESSMENT

PARCEL #6, RDI LLC
700 SOUTH MEMORIAL DRIVE
GREENVILLE, PITT COUNTY, NORTH CAROLINA

1.0 INTRODUCTION

1.1 Site Description

Site Name	Parcel #6, RDI LLC (BP Gas Station)
Site Location/Address	Located at 700 South Memorial Drive, Greenville, North Carolina
General Site Description	The site is occupied by BP Gas station and convenience store.

1.2 Site History

According to information provided by NCDOT and collected by Terracon, four underground storage tanks (USTs) were reportedly installed at the site in 1988 and are located within the planned right-of-way (ROW). There are no known groundwater incidents associated with the site. The NCDOT intends to acquire only a portion of the parcel.

1.3 Scope of Work

At your request, Terracon is preparing the following Preliminary Site Assessment (PSA) scope of work (SOW) in accordance with the NCDOTs Request for Technical and Cost Proposal dated June 19, 2012 and Terracon's Proposal for Preliminary Site Assessment (Proposal No. P70127314) dated August 7, 2012. The scope of work included a geophysical investigation, collecting 18 soil samples for laboratory analysis, collecting four groundwater samples for laboratory analysis and preparation of a report documenting soil investigation activities.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These PSA services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

1.5 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this PSA. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of North Carolina Department of Transportation (NCDOT), and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of the client and Terracon.

2.0 FIELD ACTIVITIES

The following PSA activities are presented in the order that they were conducted in the field on August 16 and 30, 2012. Exhibit 1 presents the general boundaries and topography of the site on portions of the USGS topographic quadrangle map of Greenville SW, North Carolina dated 1998. Exhibit 2 is a site layout plan that indicates the approximate locations of the site features and soil boring locations.

2.1 Geophysical Survey

On August 16, and 30, 2012, Pyramid Environmental conducted a geophysical investigation at the site in an effort to determine if unknown, metallic underground storage tanks (USTs) were present beneath the proposed right-of-way (ROW) area. The geophysical investigation included an electromagnetic (EM) induction survey using a Geonics EM-61 MK1 metal detection instrument followed by a ground penetrating radar (GPR) survey using a GSSI SIR-2000 unit.

The geophysical investigation revealed two possible (low confidence) metallic USTs or buried, wide diameter conduits. The noted anomaly was reported in the southwestern portion of the site outside of the current canopy areas and away from the active UST pit associated with the on-site filling station operations. The geophysical investigation revealed no other buried anomalies in the area of investigation identified for this site.

A copy of the geophysical report that includes a summary of the field findings is included in Appendix B.

2.2 Soil Sampling

Based on the findings of the geophysical investigation, Terracon directed the installation of eighteen (18) soil borings along the northern and eastern portions of the larger property on September 11th and 12th, 2012. The borings were completed by Bridger Drilling Enterprises, Inc., a North Carolina licensed driller using a Geoprobe® rig.

Soil borings B-1 through B-5 and B-17 were advanced in the right of way (ROW) on the east side of the site and in a generally northeast to southwest direction along South Memorial Drive. Soil borings B-6 – B-13 and B-18 were advanced in the ROW on the north side of the site and in a generally northeast to southwest direction along Farmville Boulevard. Soil borings B-14, B-15, and B-16 were advanced in the vicinity of a suspected UST identified in the southwestern interior of the larger property. Soil borings S-17 and S-18 were advanced on the east and west sides of the UST pit located in the northern corner of the larger site.

Soil samples were collected continuously in 5-foot, disposable, acetate sleeves and observed to document soil lithology, color, moisture content, and sensory evidence of impairment. The soil samples were placed in a resealable plastic bag set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The soil samples were then field screened using a *Thermo Electron Corporation TVA-1000* field-portable Photoionization/Flame Ionization Detector (PID/FID) by inserting the probe tip into the headspace of the bag. The PID readings and soil sample depths are included on Table 1 and on individual Boring Logs in Appendix A.

All borings were advanced to a depth of approximately 15 feet below ground surface (bgs). Soils obtained from the acetate sleeves were separated into two foot intervals. Groundwater levels were measured in the temporary groundwater monitoring wells between approximately 5.3 and 6.6 feet bgs. Based on this observation, soils were only screened above the saturated zone.

The soil samples were collected and placed in laboratory prepared glassware and placed on ice in a cooler. The sample cooler and completed chain-of-custody forms were relinquished to SGS North American Inc. in Wilmington, North Carolina.

2.3 Groundwater Sampling

Following soil sampling activities, soil borings B-6, B-17 and B-18, located in the apparent down-gradient position to the UST pit located in the northern portion of the site, were converted to temporary groundwater monitoring wells TW-2, TW-3 and TW-4, respectively, by driving the

direct push probe to approximately 15 feet bgs and installing a temporary monitoring well. One additional boring was advanced between B- 4 and B-17 and converted into temporary groundwater monitoring well TW-1. The temporary monitoring well locations are included in the attached Figure, Exhibit 2. The temporary monitoring wells were constructed with the following materials:

- Installation of 1-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap; and,
- Installation of 1-inch diameter, threaded, flush-joint PVC riser pipe to surface.

Groundwater was measured in the temporary groundwater monitoring wells between approximately 5.3 and 6.6 feet bgs. The water that flowed into the temporary monitoring wells was purged with a peristaltic pump until turbidity decreased. One sample was collected from each temporary monitoring well and placed into laboratory supplied, pre-preserved sample containers. The sample containers were placed on ice, along with Chain of Custody documentation, and picked up by a laboratory courier for laboratory analysis.

2.4 Subsurface Conditions

The soil samples from existing ground surface to a depth of 15 feet included silty sands, clayey sands, silty clay, and sandy clay. Asphalt odors were detected from the samples collected from the surface at soil borings B-2, B-3, B-46, B-10, B-14, B-15 and B-16. A petroleum odor was detected from soil boring B-17 (0.0-10.0 feet) and B-18 (0.0-7.5 feet). Elevated PID readings were also reported from the above mentioned soil samples during the site investigation. Soil samples from the zone exhibiting the highest PID reading from each boring or most obvious sign of contamination were submitted for laboratory analysis. Groundwater levels were measured in the temporary groundwater monitoring wells between approximately 5.3 and 6.6 feet bgs.

3.0 LABORATORY ANALYTICAL PROGRAM

Soil samples were submitted for laboratory analysis of Total Petroleum Hydrocarbons (TPH) Diesel Range Organics (DRO) by Method 8015C/3541 and TPH Gasoline Range Organics (GRO) by Method 8015C/5035. The groundwater samples were submitted for laboratory analysis of VOCs by EPA Method 8260 and SVOCs by EPA Method 8270. Additionally, the four additional soil samples were collected around the UST basin, and held by the laboratory pending the analytical results of the DRO/GRO samples. Based on the analytical results, soil samples S-15 and S-17 were also analyzed for NCDENR risk-based parameters which include volatile organic compounds (VOCs) by EPA Method 8260B, volatile petroleum hydrocarbons by MADEP VPH, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and extractable petroleum hydrocarbons by MADEP EPH. Samples were submitted to SGS North American Inc. in Wilmington, North Carolina for analysis. Please refer to Appendix C for the

laboratory analytical reports.

4.0 DATA EVALUATION

4.1 Soil Sample Analytical Results and Interpretation

TPH DRO was reported in soil samples S-13 (16 mg/kg), S-15 (10.6 mg/kg) and S-17 (635 mg/kg) at concentrations above the NCDENR Action Level of 10 mg/kg.

TPH GRO was not detected in the soil samples submitted for laboratory analysis above the laboratory reporting limits.

Laboratory analytical results for the subsequent risk-based analysis sample from S-15 reported 1,2,4-trimethylbenzene, naphthalene, n-propylbenzene and butyl benzyl phthalate at concentrations above their respective laboratory reporting limits but below their respective NCDENR – Division of Waste Management (DWM) Soil-to-Groundwater Maximum Soil Contamination Concentrations (MSCCs) and Residential MSCCs.

Summary tables of the soil sampling analytical results are included in Table 1 and 2 which are included as attachments to this report.

4.2 Groundwater Analytical Results and Interpretation

Laboratory analytical results for groundwater sample TW-2 reported methyl tert-butyl ether (MTBE) (26.6 ug/l) at a concentration in excess of the NCAC 2L Groundwater Quality Standard of 20 ug/L.

Summary tables of the groundwater sampling analytical results are included in Table 3 which is included as an attachment to this report.

5.0 CONCLUSIONS

The findings of this investigation are as follows:

- The geophysical investigation revealed two possible (low confidence) metallic USTs or buried, wide diameter conduits. The noted anomaly was reported in the southwestern portion of the site outside of the current canopy areas and away from the active UST pit associated with the on-site filling station operations. The geophysical investigation revealed no other buried anomalies in the area of investigation identified for this site.

- A total of 18 soil samples were advanced to a depth of approximately 15 feet bgs.

- TPH DRO was reported in soil samples S-13 (16 mg/kg), S-15 (10.6 mg/kg) and S-17 (635 mg/kg) at concentrations above the NCDENR Action Level of 10 mg/kg.

  TPH GRO was not detected in the soil samples submitted for laboratory analysis above the laboratory reporting limits.

  Laboratory analytical results for the subsequent risk-based analysis sample from S-15 reported 1,2,4-trimethylbenzene, naphthalene, n-propylbenzene and butyl benzyl phthalate at concentrations above their respective laboratory reporting limits but below their respective NCDENR – Division of Waste Management (DWM) Soil-to-Groundwater Maximum Soil Contamination Concentrations (MSCCs) and Residential MSCCs.

  The areas of soil contamination appear to be localized. An estimated weight of petroleum impacted soil in the vicinity of soil sample S-15 & S-17 is 80.5 tons or 51.85 cubic yards. This calculation assumes an area of 10 ft long by 10 ft wide by 7 feet deep (the groundwater level measured in the temporary groundwater monitoring well within the proposed project area was approximately 7 feet bgs) at each area. The actual amount of impacted soil can only be determined after excavation or by advancing additional borings at the site to further delineate the extents of contamination.

- Groundwater levels were measured in the temporary groundwater monitoring wells between approximately 5.3 and 6.6 feet bgs.

  Laboratory analytical results for groundwater sample TW-2 reported methyl tert-butyl ether (MTBE) (26.6 ug/l) at a concentration in excess of the NCAC 2L Groundwater Quality Standard of 20 ug/L.

- Based on the reported soil and groundwater concentrations detected during this investigation, Terracon recommends providing the laboratory analytical results to the property owner and recommend that the property owner consult with NCDENR regarding the groundwater contamination.

- Based on information provided by the NCDOT, soil and groundwater impacts appear to impact the proposed NCDOT project based on the shallow groundwater and proposed depth of disturbance.

- Based on planned ROW construction information provided by the NCDOT, petroleum-impacted soil and groundwater may be encountered at the site due to shallow groundwater and the proposed depth of disturbance.

Based on information provided by NCDOT, Terracon estimates a total of 179 yd^3 or 268.5 tons of contaminated soil be used for estimating quantities to be removed during construction. This is based on the following assumptions:

Utility Excavation

- Area near sample S-13: 18 feet of water line through the contaminated area from property line at 10 feet deep by 5 feet wide = 900 ft^3 or 33 yd^3

- Area near sample S-17: 45 feet of water line through the contaminated area from property line at 10 feet deep by 5 feet wide = 2250 ft^3 or 83 yd^3

Drainage Excavation

- Area near sample S-13: 31 feet of 24" RCP line through the contaminated area from property line with approximate roadway cut elevation ~69.7 feet and invert elevation at ~66 feet

  (69.7 ft – 66 ft) x (24 in./12in.) x (31 ft) =230 ft^3 or 8.5 yd^3

Roadway Excavation

- Area near Sample S-13: Assume 1.1 ft will be cut for roadway construction based on cross-section at Sta. 16+50.

  Surface area of contaminated soil on roadway side of 24" RCP: 338 ft^2
  338 ft^2 x 1.1 ft = 371.8 ft^3 or 13.5 yd^3

- Area near Sample S-17: Contaminated area overlapping tank pit is not considered since it will be removed during the UST removal.

  Assume 2 ft will be cut for roadway construction over remaining contaminated area between tank pit and utility excavation

  14 ft x 40 ft x 2 ft = 1120 ft^3 or 41 yd^3

TABLES

Table 1 - Soil Sampling Analytical Results Summary (DRO/GRO)
Table 2 - Soil Sampling Analytical Results Summary (VOCs/SVOCs)
Table 3 – Groundwater Sampling Analytical Results Summary

Table 1
Soil Sampling Analytical Results Summary (DRO/GRO)
Parcel #6, RDI, LLC Property
Greenville, Pitt County, North Carolina

Sample ID	Depth	PID reading	Method 5035/GRO	Method 3546/DRO
	ft bgs	ppm	mg/kg	mg/kg
S-1	5.0-7.5	3.4	<3.11	<7.18
S-2	5.0-7.5	2.5	<3.24	7.75
S-3	0.0-2.5	0.7	<2.78	<7.01
S-4	2.5-5.0	1	<2.95	<6.70
S-5	2.5-5.0	1.2	<3.01	<6.68
S-6	5.0-7.5	2.3	<3.22	8.09
S-7	2.5-5.0	0.4	<3.12	<6.92
S-8	5.0-7.5	1.1	<3.60	<7.44
S-9	7.5-10.0	3	<3.34	<7.68
S-10	2.5-5.0	2.2	<3.20	<7.21
S-11	5.0-7.5	2.1	<3.56	<6.77
S-12	2.5-5.0	2.5	<3.26	<6.76
S-13	5.0-7.5	7.1	<3.06	16
S-14	7.5-10.0	4.7	<3.70	<7.16
S-15	5.0-7.5	5.7	<3.20	10.6
S-16	0.0-2.5	14.3	<3.14	8.93
S-17	7.5-10.0	40.4	<4.17	635
S-18	5.0-7.5	2.4	<3.75	<7.20
NCDENR Action Level			10	10

Notes:
ft bgs = feet below ground surface
ppm = parts per million
mg/kg = milligrams per kilogram
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
ND = Below laboratory detection limits
Highlight indicates above NCDENR UST Section Action Level

Table 2
Soil Sampling Analytical Results Summary (VOCs/SVOCs)
Parcel #6, RDI, LLC Property
Greenville, Pitt County, North Carolina

					Sample ID	S-15	S-17
					Sample Depth	5.0-7.5 FT	7.5-10.0 FT
Method	Parameter	Units	NCDENR - Soil-to-Groundwater MSCC (mg/kg)	NCDENR - Residential MSCC (mg/kg)		Value	Value
8260B	1,2,4-Trimethylbenzene	mg/kg	8.5	782		<0.00438	0.0192
	Napthalene	mg/kg	0.16	313		<0.00438	0.0108
	n-Propylbenzene	mg/kg	1.7	626		<0.00438	0.00896
8270C	Butyl benzyl phthalate	mg/kg	NE	NE		<0.36	1.31

Notes:
Samples collected on September 11 and 12, 2012
NE = Not established
mg/kg = milligrams per kilogram

Table 3
Groundwater Sampling Analytical Results Summary
Parcel #6, RDI, LLC Property
Greenville, Pitt County, North Carolina

			Sample ID	TW-1	TW-2	TW-3	TW-4
			Sample Depth	6.0 FT	11 FT	5.5 FT	5.3 FT
Method	Parameter	Units	NCAC 2L Groundwater Quality Standard (ug/L)	Value	Value	Value	Value
8260	methyl tert-Butyl ether (MTBE)	ug/l	20	<1.0	26.6	1.41	<1.0
8270C	SVOCs	ug/l	No Constiuents Detected at Concentrations Above Their Respective Method Detection Limits				

Notes:
Sample GW collected on September 11 and 12, 2012
NE = Not established
ug/L = micrograms per liter
=Greater than or equal to the NCAC 2L Groundwater Quality Standard

FIGURES

Exhibit 1 – Site Vicinity Map (Topographic Map)
Exhibit 2 – Site Diagram with Soil Boring Locations and Analytical Data

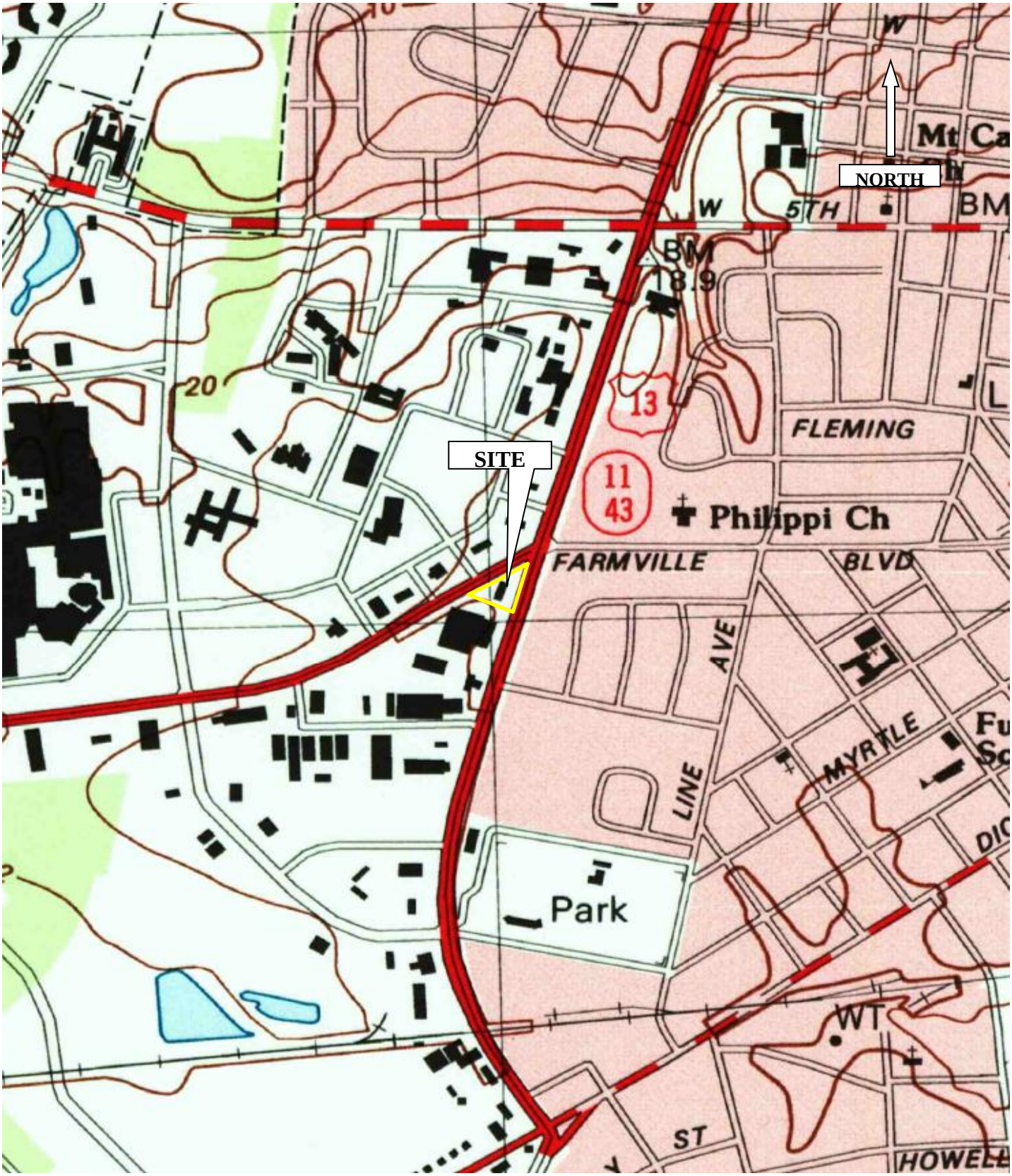


Diagram is for general location only

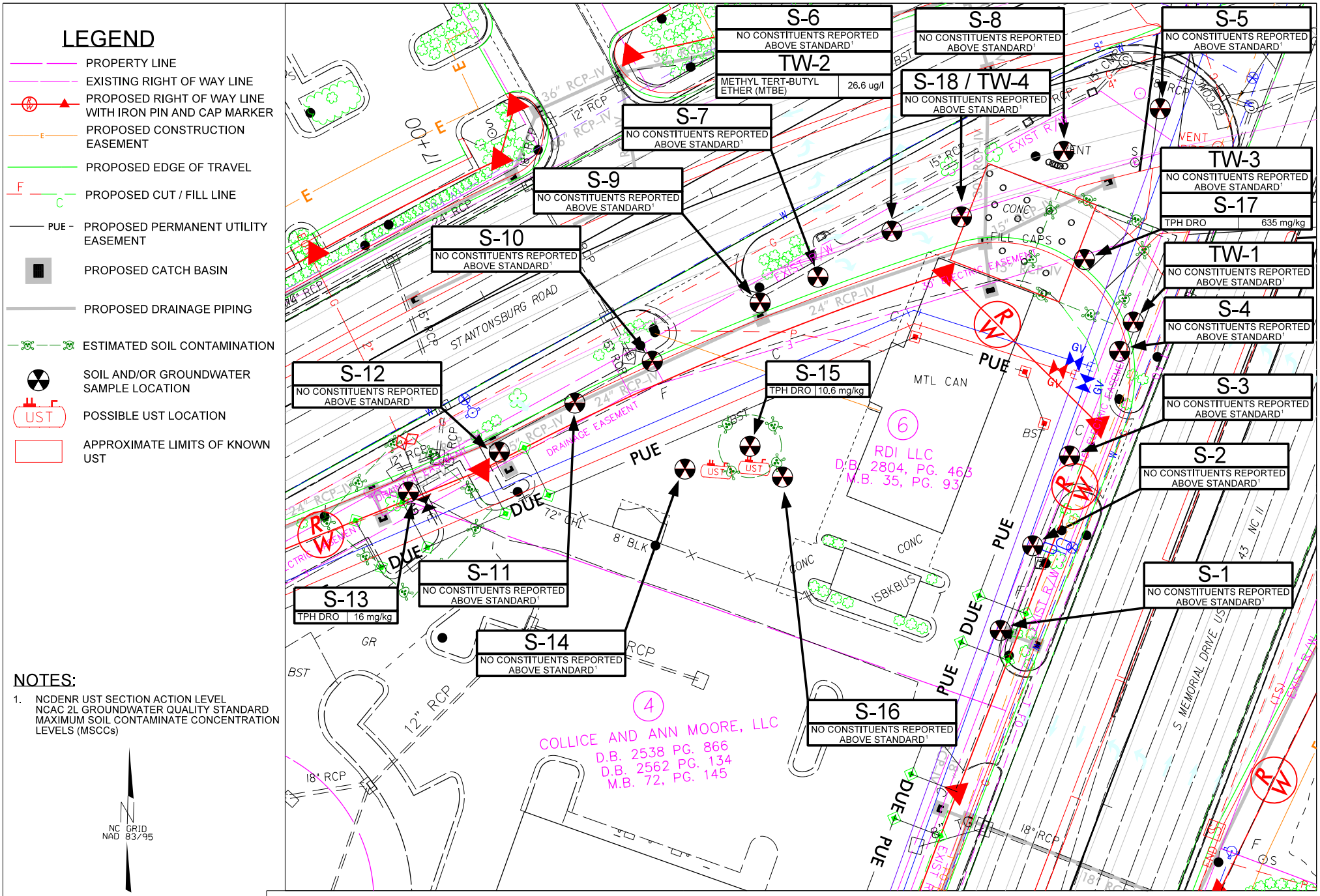
Site Vicinity Map
Parcel # 6
700 South Memorial Drive
Greenville, Pitt County, North Carolina

Reference: Greenville SW, NC USGS Quadrangle

Dated Year: 1998

Terracon

PROJECT NO.:	70127335
DATE: 10/3/12	CONTOUR INT: 2 meters
DRAWN: MDP	CHECK: LCH
SCALE: NTS	



SCALE: 1:50	PROJ. REFERENCE NUMBER: 35781.1.2	Terracon	SITE DIAGRAM WITH SOIL BORING LOCATIONS AND ANALYTICAL DATA
DATE: FEBRUARY 2013	TIP NUMBER: U-3315	5240 GREEN'S DAIRY ROAD RALEIGH, NC 27616	RDI LLC PROPERTY - PARCEL 6
DRAWN BY: MJA	COUNTY: PITT	PH. (919) 873-2211 FAX. (919) 873-9555	-L- STATION 18+00
APPROVED BY: LCH / BWS	TERRACON PROJECT: 70127335		700 S. MEMORIAL DRIVE
			GREENVILLE, PITT COUNTY, NORTH CAROLINA

EXHIBIT 2

APPENDIX A

Boring Logs

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-1
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	1.6	No odors	0.0	Asphalt
					0.5	Orange, brown clayey sand
					1.0	
					1.5	
					2.0	
2.5 - 5.0		NA	2.4		2.5	
					3.0	
					3.5	
					4.0	Cave in at 4 feet bgs
					4.5	
5.0 - 7.5*		NA	3.4		5.0	Tan, grey clayey sand
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	3.8		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	3.7		10.0	Tan, grey sandy clay/moist
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	3.5		12.5	
					13.0	Tan, orange sandy clay/wet
					13.5	
					14.0	Wet at 14 feet bgs
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-2
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	1.7	No odors	0.0	Asphalt
					0.5	White, tan sandy clay/moist
					1.0	
					1.5	
					2.0	
2.5 - 5.0		NA	1.7		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	2.5	Slight odor	5.0	Black sand
					5.5	
					6.0	
					6.5	
					7.0	Red, orange sandy clay
7.5 - 10.0		NA	1.4		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	1.5		10.0	Tan, grey sand/wet
					10.5	
					11.0	
					11.5	
					12.0	Orange, sandy clay
12.5 - 15.0		NA	NA		12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
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HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-3
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5*		NA	0.7	Slight odor	0.0	Asphalt
					0.5	Black sand
					1.0	Grey, tan sandy clay/moist
					1.5	
					2.0	
2.5 - 5.0		NA	0.3		2.5	
					3.0	Orange, brown sandy clay/ moist
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	NA		5.0	Gray clayey sand/moist
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	NA		7.5	
					8.0	
					8.5	
					9.0	Tan, orange sandy clay
					9.5	
10.0 - 12.5		NA	NA		10.0	
					10.5	
					11.0	Wet at 11 feet bgs
					11.5	
					12.0	
12.5 - 15.0		NA	NA		12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-4
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.9	No odors	0.0	Asphalt
					0.5	Tan, brown sand
					1.0	
					1.5	
					2.0	
2.5 - 5.0*		NA	1.0		2.5	
					3.0	Orange, tan sandy clay
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	0.9		5.0	
					5.5	
					6.0	Orange, tan grey clay
					6.5	
					7.0	
7.5 - 10.0		NA	0.4		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	1.1		10.0	Tan, grey sandy clay/moist
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	1.0		12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-5
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	1.1	No odors	0.0	Top soil
					0.5	
					1.0	Brown, tan clayey sand
					1.5	
					2.0	Asphalt
2.5 - 5.0*		NA	1.2		2.5	Tan, orange sandy clay
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	1.2		5.0	Tan, grey clayey sand/wet
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	1.5		7.5	
					8.0	Tan, grey sandy clay
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	NA		10.0	Tan, grey clayey sand
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	NA		12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-6
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	1.1	Slight odor	0.0	Asphalt
					0.5	Brown sandy
					1.0	
					1.5	
					2.0	Tan, grey sandy clay
2.5 - 5.0		NA	1.7		2.5	
				No odor	3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	2.3		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	0.6		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	0.9		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	2.9		12.5	
					13.0	
					13.5	
					14.0	Black clay
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-7
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.0	No odors	0.0	Asphalt
					0.5	Black sand/ashpalt
					1.0	Tan, sandy clay
					1.5	
					2.0	
2.5 - 5.0*		NA	0.0		2.5	
					3.0	Orange, tan, grey sandy clay
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	0.0		5.0	
					5.5	
					6.0	Tan, grey sandy clay
					6.5	
					7.0	
7.5 - 10.0		NA	0.0		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	0.0		10.0	
					10.5	
					11.0	
					11.5	
					12.0	Tan, grey clayey sand
12.5 - 15.0		NA	0.0		12.5	
					13.0	
					13.5	
					14.0	Orange, tan sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-8
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.1	No odors	0.0	Top soil
					0.5	
					1.0	
					1.5	
					2.0	Orange, grey sandy clay
2.5 - 5.0		NA	0.7		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	1.1		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	1.5		7.5	
					8.0	Grey sandy clay
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	1.2		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	NA		12.5	
					13.0	
					13.5	
					14.0	Wet at 14 feet bgs
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-9
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.0	No odors	0.0	Asphalt
					0.5	Brown, black sand
					1.0	Orange, tan sandy clay
					1.5	
					2.0	
2.5 - 5.0		NA	0.0		2.5	
					3.0	Orange, grey sandy clay
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	0.0		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0*		NA	0.0		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	0.0		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	0.0		12.5	
					13.0	Tan, orange fine to coarse sand
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-10
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	1.1	Slight odor	0.0	Asphalt
				No odor	0.5	Brown, orange sandy clay
					1.0	
					1.5	
					2.0	
2.5 - 5.0*		NA	2.2		2.5	
					3.0	Orange, tan, grey sandy clay
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	3.2		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	3.0		7.5	
					8.0	Moist at 8 feet bgs
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	1.4		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	1.1		12.5	
					13.0	
					13.5	
					14.0	Orange, tan sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-11
PROJECT NO.: 70127335	DATE(S) DRILLED: September 11, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.9	No odors	0.0	Asphalt
					0.5	Orange, tan, grey sandy clay
					1.0	
					1.5	
					2.0	
2.5 - 5.0		NA	1.2		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	2.1		5.0	
					5.5	
					6.0	
					6.5	
					7.0	Orange, grey sandy clay
7.5 - 10.0		NA	2.5		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	2.8		10.0	Moist at 10 feet bgs
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	3.6		12.5	
					13.0	
					13.5	
					14.0	Tan, orange fine to coarse sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-12
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	2.5	No odors	0.0	Asphalt
					0.5	Orange, grey clay/moist
					1.0	
					1.5	
					2.0	Tan, grey sandy clay
2.5 - 5.0*		NA	2.5		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	2.3		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	2.2		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	2.2		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	1.8		12.5	
					13.0	Moist at 13 feet bgs
					13.5	
					14.0	Orange, tan fine to coarse sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-13
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	5.8	Organic odor	0.0	Top soil
					0.5	
					1.0	Tan, brown sandy clay
					1.5	
					2.0	
2.5 - 5.0		NA	6.0		2.5	
					3.0	
					3.5	
					4.0	Moist at 4 feet bgs
					4.5	
5.0 - 7.5*		NA	7.1		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	6.8		7.5	
					8.0	Tan, grey sandy clay
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	4.2	No odor	10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	3.8		12.5	
					13.0	
					13.5	
					14.0	Orange, tan fine to coarse sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-14
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	3.9	Organic odor	0.0	Asphalt
					0.5	Tan, brown sand
					1.0	
					1.5	
					2.0	Orang, tan sandy clay
2.5 - 5.0		NA	3.9	No odor	2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	3.8	Slight odor	5.0	Asphalt layer
					5.5	orange, tan sandy clay
					6.0	
					6.5	
					7.0	
7.5 - 10.0*		NA	4.7	No odor	7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	5.1		10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	3.9		12.5	
					13.0	
					13.5	
					14.0	orange, tan fine to coarse sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-15
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	5.5	Slight odor	0.0	Asphalt
					0.5	Orange, brown sand
					1.0	
					1.5	
					2.0	Asphalt
2.5 - 5.0		NA	4.6	No odor	2.5	Orange, tan, grey sandy clay
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	5.7	Slight odor	5.0	Asphalt
					5.5	Orange, tan, grey sandy clay
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	5.3	No odor	7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	4.8		10.0	
					10.5	
					11.0	
					11.5	
					12.0	Orange, tan, grey sandy clay/moist
12.5 - 15.0		NA	3.8		12.5	
					13.0	
					13.5	
					14.0	Orange, tan fine to coarse sand
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-16
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5*		NA	14.3	Yes	0.0	Asphalt
					0.5	Black sand
					1.0	White, tan sand
					1.5	
					2.0	
2.5 - 5.0		NA	4.5	No odors	2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5		NA	2.7		5.0	
					5.5	
					6.0	
					6.5	
					7.0	Tan, grey sandy clay
7.5 - 10.0		NA	2.6		7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	2.7		10.0	Moist at 10 feet bgs
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	1.7		12.5	
					13.0	
					13.5	
					14.0	Orange, tan fine to coarse sand (Moist at 14 feet bgs)
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-17
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.0	No odor	0.0	Asphalt
					0.5	Tan, brown clayey sand
					1.0	
					1.5	
					2.0	
2.5 - 5.0		NA	******		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	*********		5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	40.4	Strong odor	7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	7.1		10.0	Brown, tan sandy clay/wet
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	8.3		12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
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WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

SOIL BORING LOG

PROJECT NAME: Stantonsburg/Tenth Street Connector	SOIL BORING I.D.: B-18
PROJECT NO.: 70127335	DATE(S) DRILLED: September 12, 2012
PROJECT LOCATION: Parcel #6, 700 South Memorial Drive Greenville, North Carolina	DRILLING CONTR.: Bridger Drilling Enterprises, Inc. DRILL METHOD: Geoprobe BORING DIAMETER: 2 inches
CLIENT: NCDOT Geoenvironmental	SAMPLING METHOD/INTERVAL: 5-Foot
LOGGED BY: Ben Swift	REMARKS: BGS = below grade surface

DESCRIPTIVE LOG

SAMPLE INTERVAL	SAMPLE REC. (IN.)	BLOWS PER 6"	PID/FID (ppm)	Odors	DEPTH (FT)	DESCRIPTION OF SOIL
0 - 2.5		NA	0.0	No odors	0.0	Asphalt
					0.5	
					1.0	
					1.5	
					2.0	
2.5 - 5.0		NA	0.0		2.5	
					3.0	
					3.5	
					4.0	
					4.5	
5.0 - 7.5*		NA	2.4	Slight odor	5.0	
					5.5	
					6.0	
					6.5	
					7.0	
7.5 - 10.0		NA	1.9	No odor	7.5	
					8.0	
					8.5	
					9.0	
					9.5	
10.0 - 12.5		NA	3.1	Yes	10.0	
					10.5	
					11.0	
					11.5	
					12.0	
12.5 - 15.0		NA	2.8	No odor	12.5	
					13.0	
					13.5	
					14.0	
					14.5	
					15.0	Boring Terminated at 15.0 feet bgs
					15.5	
					16.0	
					16.5	
					17.0	
					17.5	
					18.0	
					18.5	
					19.0	
					19.5	
					20.0	
					20.5	
					21.0	
					21.5	

DRILLING METHODS
AR - AIR ROTARY
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
MD - MUD DRILLING
RC - ROCK CORING
WR - WATER ROTARY

SAMPLING METHODS
SS - SPLIT SPOON
ST - SHELBY TUBE
GP - GEOPROBE

* - Sample collected for analysis
ND = <1 ppm

Terracon

APPENDIX B

Geophysical Survey Report

Pyramid Project # 2012212

GEOPHYSICAL INVESTIGATION REPORT

EM61 & GPR SURVEYS

RDI, LLC PROPERTY (PARCEL 6)
700 South Memorial Drive
Greenville, North Carolina

September 24, 2012

Report prepared for: **Lori C. Hoffman, PE**
Stephen J. Kerlin
Terracon
5240 Green's Dairy Road
Raleigh, North Carolina 27616

Prepared by: _____
Mark J. Denil, P.G.

PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.
P.O. Box 16265
GREENSBORO, NC 27416-0265
(336) 335-3174

Terracon
GEOPHYSICAL INVESTIGATION REPORT
RDI, LLC PROPERTY (PARCEL 6)
700 South Memorial Drive
Greenville, North Carolina

TABLE OF CONTENTS PAGE

FIGURES

1.0 INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Terracon across the proposed Right-of-Way (ROW) area at the RDI, LLC property (Parcel 6) located at 700 South Memorial Drive in Greenville, North Carolina. Conducted on August 16 and 30, 2012, the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) preliminary site assessment for state project number U-3315 (WBS Element 35781.1.2) to determine if unknown, metallic, underground storage tanks (USTs) were present beneath the proposed ROW area of the site.

The RDI, LLC property consists of an active BP convenience store and gas station facility. The proposed ROW area consists of asphalt pavement and grass-covered perimeters of the property that run along South Memorial Drive and Stantonsburg Road. Areas containing steel reinforced concrete pavement encompasse four active USTs and two active pump islands that are located along the northern portion of the property and within the proposed ROW area. The geophysical survey area has a maximum length and width of 260 feet and 170 feet, respectively.

Terracon representatives Mr. Stephen Kerlin and Ms. Lori Hoffman, PE provided information and maps identifying the geophysical survey area to Mark Denil, PG prior to conducting the investigation. Photographs of the geophysical equipment used in this investigation and the eastern portion of the property are shown in **Figure 1**.

2.0 FIELD METHODOLOGY

Prior to conducting the geophysical investigation, a 20-foot by 20-foot survey grid was established across the geophysical survey (proposed ROW) area using measuring tapes, pin flags and water-based marking paint. These grid marks were used as X-Y coordinates for location control when collecting the geophysical data and establishing base maps for the geophysical results.

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection surveys and ground penetrating radar (GPR) surveys. The EM survey was performed using a Geonics EM61-

MK1 metal detection instrument. According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. All of the EM61 data were digitally collected at approximately 0.8 foot intervals along northerly-southerly trending, parallel survey lines spaced five feet apart. All of the data were downloaded to a computer and reviewed in the field and office using the Geonics DAT61W and Surfer for Windows Version 7.0 software programs.

The GPR investigation was conducted across the areas containing steel reinforced concrete and selected EM61 differential anomalies using a GSSI SIR-2000 unit equipped with a 400 MHz antenna. Data were digitally collected in a continuous mode along X-axis and/or Y-axis survey lines, spaced 2.5 to 5.0 feet apart using a vertical scan of 512 samples, at a rate of 48 scans per second. A 70 MHz high pass filter and an 800 MHz low pass filter were used during data acquisition with the 400 MHz antenna. GPR data were collected down to a maximum depth of approximately 5 feet, based on an estimated two-way travel time of 8 nanoseconds per foot.

Verbal, preliminary geophysical results obtained from the site were provided to Mr. Kerlin or Ms Hoffman during the week of September 3, 2012.

3.0 DISCUSSION OF RESULTS

Contour plots of the EM61 bottom coil and differential results are presented in **Figures 2 and 3**, respectively**.** The bottom coil results represent the most sensitive component of the EM61 instrument and detect metal objects regardless of size. The bottom coil response can be used to delineate metal conduits or utility lines, small, isolated metal objects, and areas containing insignificant metal debris. The differential results are obtained from the difference between the top and bottom coils of the EM61 instrument. The differential results focus on the larger metal objects such as drum and UST-size objects and ignore the smaller insignificant metal objects.

The linear, EM61 bottom coil anomalies intersecting grid coordinates X=80 Y=95, X=180 Y=210 and X=275 Y=100 are probably in response to buried utility lines that run along the edge of

Stantonsburg Road and South Memorial Drive. The linear, bottom coil anomalies intersecting grid coordinates X=160 Y=115, X=240 Y=70 and X=240 Y=98 are probably in response to buried lines or conduits. The numerous, oval-shaped bottom coil anomalies recorded across the northern portion of the site and centered near grid coordinates X=230 Y=230 are probably in response to known surface objects.

GPR data suggest the high-amplitude, EM61 differential anomaly centered near grid coordinates X=210 Y=175 is in response to steel reinforced concrete, the four active USTs and associated buried lines/conduits. The axes of the four USTs are oriented in a northerly-southerly direction and the valve covers identify the central portions of the USTs. GPR data also suggest that the high-amplitude EM61 differential anomaly centered near grid coordinates X=200 Y=140 is in response to steel reinforced concrete pavement, two pump islands and associated buried lines/conduits.

GPR data acquired across the EM61 differential anomalies centered near grid coordinates X=113 Y=62.5 and X=125 Y=63.5 detected two possible (low confidence) metallic USTs or buried, wide-diameter conduits. Based on the GPR data, the possible UST or conduit at X=113 Y=62.5 is approximately 15 feet long, 3 feet wide and buried 2.25 feet below pavement. The possible UST or conduit at X=125 Y=63.5 is approximately 7 feet long, 3 feet wide and buried 1.75 feet below pavement. GPR images obtained along a portion of survey lines X=115 and X=125, which cross the possible USTs or wide-diameter conduits, and a photograph showing the locations of the possible USTs are presented in **Figure 4.** The foot prints of the possible USTs were marked in the field using orange marking paint.

The remaining EM61 anomalies shown in Figures 2 and 3 are probably in response to known surface objects, conduits, or to small, insignificant metal debris/objects.

4.0 SUMMARY & CONCLUSIONS

Our evaluation of the EM61 and GPR data collected across the proposed ROW area of the RDI, LLC property (Parcel 6) located at 700 South Memorial Drive in Greenville, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the surveyed portion of the site.

- The linear, EM61 bottom coil anomalies intersecting grid coordinates X=80 Y=95, X=180 Y=210 and X=275 Y=100 are probably in response to buried utility lines that run along the edge of Stantonsburg Road and South Memorial Drive.

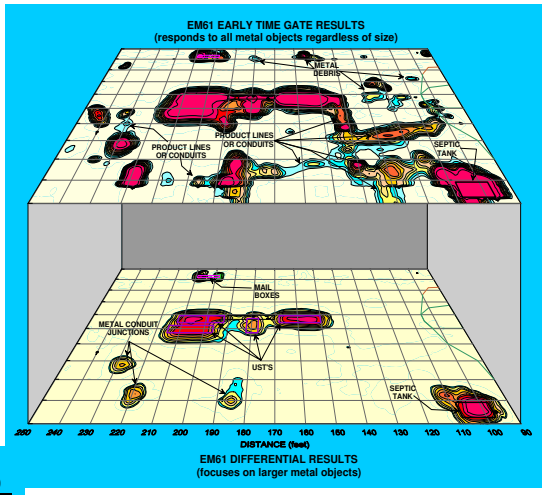
- GPR data suggest the high-amplitude, EM61 differential anomaly centered near grid coordinates X=210 Y=175 is in response to steel reinforced concrete, the four active USTs and associated buried lines/conduits. The axes of the four USTs are oriented in a northerly-southerly direction and the valve covers identify the central portions of the USTs.

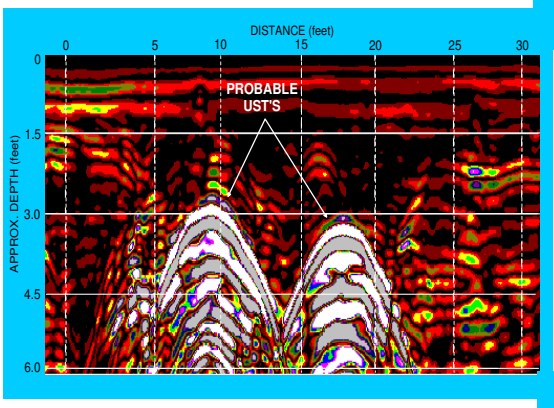
- GPR data acquired across the EM61 differential anomalies centered near grid coordinates X=113 Y=62.5 and X=125 Y=63.5 detected two possible (low confidence) metallic USTs or buried, wide-diameter conduits. Based on the GPR data, the possible UST or conduit at X=113 Y=62.5 is approximately 15 feet long, 3 feet wide and buried 2.25 feet below pavement. The possible UST or conduit at X=125 Y=63.5 is approximately 7 feet long, 3 feet wide and buried 1.75 feet below pavement.

- The remaining EM61 anomalies shown in Figures 2 and 3 are probably in response to known surface objects, buried lines, conduits, or to small, insignificant metal debris/objects.

5.0 LIMITATIONS

EM61 and GPR surveys have been performed and this report prepared for Terracon in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have detected two, possible metallic USTs or wide diameter conduits. However, additional unknown metallic USTs may lie beneath the site that were not detected by the geophysical investigation.

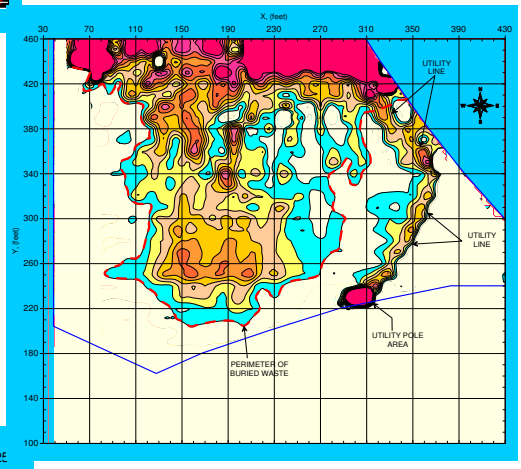


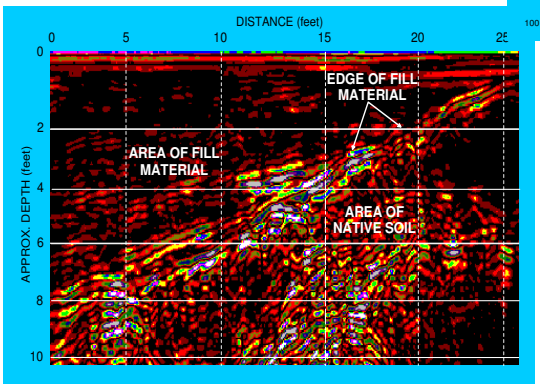


FIGURES

(on the following pages)

Figures shown on this page are for esthetic purposes only and are not related to the geophysical results discussed in this report.





The photograph shows the Geonics EM61 metal detector that was used to conduct the metal detection survey across the proposed Right-of-Way area at the RDI, LLC property (Parcel 6) on August 16, 2012.

The photographs show the SIR-2000 GPR system equipped with a 400 MHz antenna that were used to conduct the ground penetrating radar investigation across the areas containing steel reinforced concrete and selected EM61 differential anomalies at the Parcel 6 site on August 30, 2012.

The photograph shows the eastern portion of the RDI, LLC property (Parcel 6) located at the intersection of Stantonsburg Road and South Memorial Drive in Greenville, North Carolina. The photograph is viewed in a southwesterly direction.

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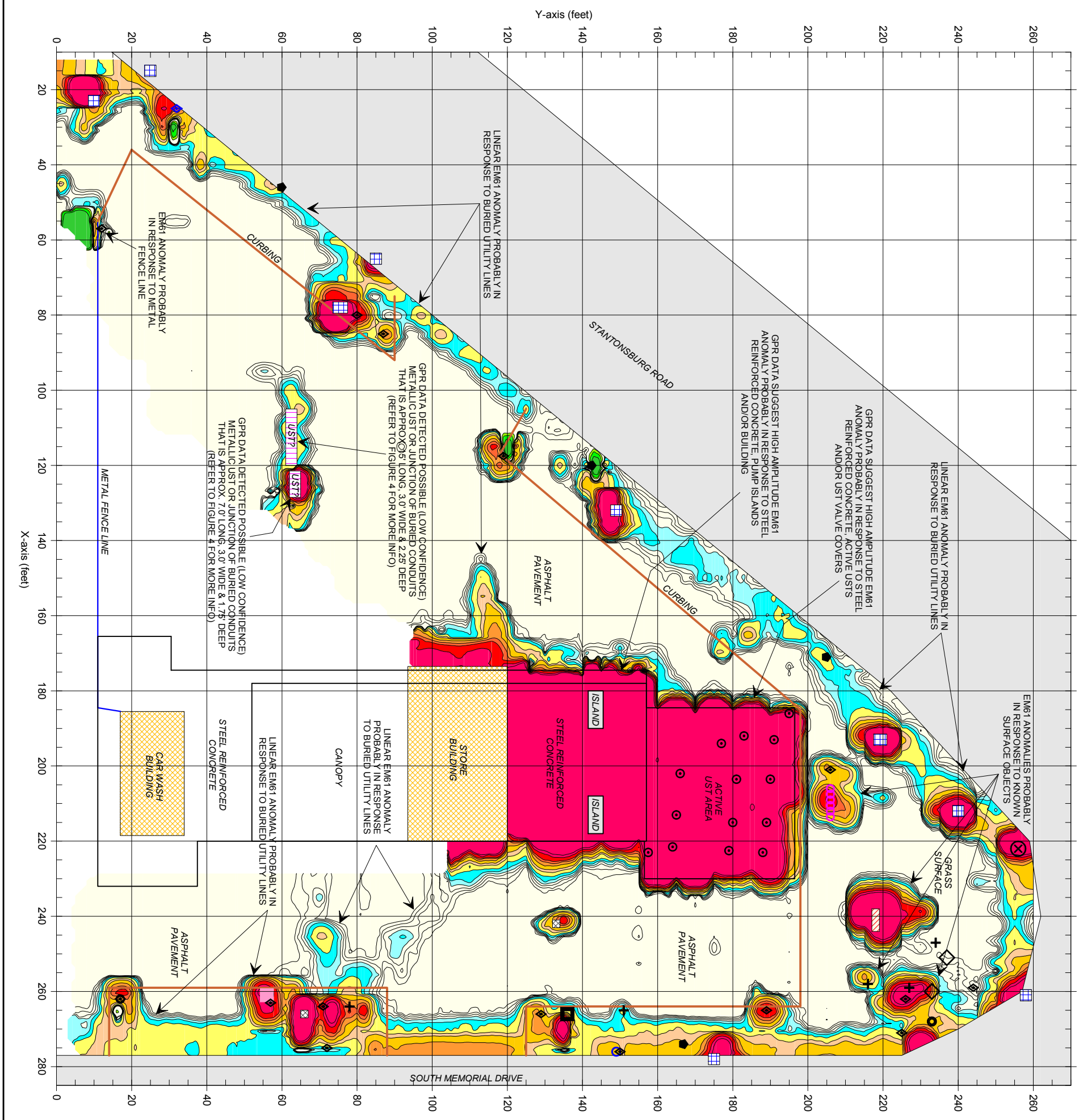
CLIENT	TERRACON CONSULTANTS, INC.	DATE	09/24/12	DRWN	MJD
SITE	RDI, LLC PROPERTY (PARCEL 6)	LAY		CHKD	
CITY	GREENVILLE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	J.NO	2012-212	FIGURE	

GEOPHYSICAL EQUIPMENT & SITE PHOTOGRAPHS

FIGURE 1



LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING
- STORM SEWER DRAIN GRATE
- METAL FENCE LINE
- CURBING
- BUSINESS SIGN
- FIRE HYDRANT
- MANHOLE COVER
- METAL PLATE
- METAL PIPE
- GUY WIRE
- LIGHT OR UTILITY POLE
- TELEPHONE
- SIGN POLE
- ROAD SIGN
- UTILITY LINE BOX
- UST VENT PIPE
- UST VALVE COVER
- UST ? — POSSIBLE UST OR JUNCTION OF BURIED CONDUITS, AS SUGGESTED BY GEOPHYSICAL DATA

APPROXIMATE NORTH

EM61 BOTTOM COIL RESPONSE (MILLIVOLTS)

-7500 -6000 -4500 -3000 -2250 -1500 -750 0 750 1500 2250 3000 4500 6000 7500

The contour plot shows the bottom coil (most sensitive) response of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM61 survey was conducted on August 16, 2012 using a Geonics EM61 instrument. Ground penetrating radar (GPR) scans were also conducted across areas containing steel reinforced concrete and selected EM61 anomalies on August 30, 2012 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

Excluding the known and active USTs centered near grid coordinates X=210 Y=175, the geophysical investigation detected two possible, metallic USTs or junctions of buried conduits centered near grid coordinates X=120 Y=63.

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT	TERRACON CONSULTANTS, INC.	DATE	09/24/12	DRWN	MJD
SITE	RDI, LLC PROPERTY (PARCEL 6)	LAY		CHKD	
CITY	GREENVILLE	STATE	NORTH CAROLINA	DWG	
TITLE	GEOPHYSICAL RESULTS	JN.O.	2012-212	FIGURE	

GRAPHIC SCALE IN FEET

EM61 METAL DETECTION
(BOTTOM COIL RESULTS)

FIGURE 2

EM61 METAL DETECTION (DIFFERENTIAL RESULTS)

FIGURE 3

APPROXIMATE NORTH

LEGEND

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING
- STORM SEWER DRAIN GRATE
- METAL FENCE LINE
- CURBING
- BUSINESS SIGN
- FIRE HYDRANT
- MANHOLE COVER
- METAL PLATE
- METAL PIPE
- GUY WIRE
- LIGHT OR UTILITY POLE
- TELEPHONE
- SIGN POLE
- ROAD SIGN
- UTILITY LINE BOX
- UST VENT PIPE
- UST VALVE COVER
- UST? — POSSIBLE UST OR JUNCTION OF BURIED CONDUITS, AS SUGGESTED BY GEOPHYSICAL DATA

EM61 DIFFERENTIAL RESPONSE (MILLIVOLTS)

-5000 -400 -200 -100 -90 -45 -60 -75 -100 -150 200 300 400 500 750 1000

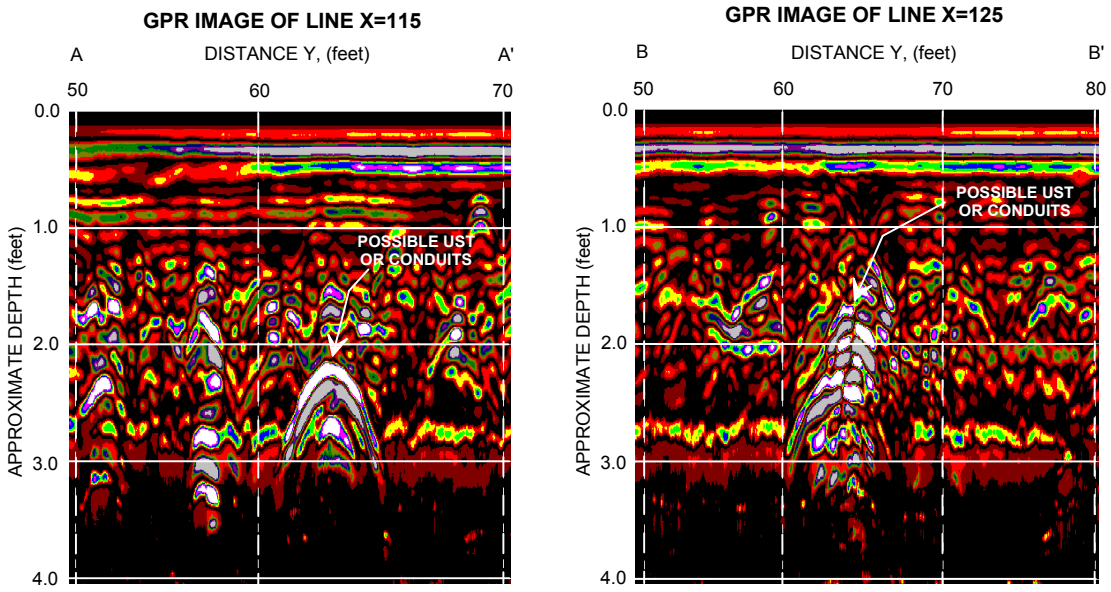
Note: The contour plot shows the differential response between the bottom and top coils of the EM61 instrument in millivolts (mV). The differential response focuses on larger, buried metallic objects such as drums and USTs and ignores smaller miscellaneous, buried, metal debris. The EM61 survey was conducted on August 16, 2012 using a Geonics EM61 instrument. Ground penetrating radar (GPR) scans were conducted across areas containing steel reinforced concrete and selected EM61 anomalies on August 30, 2012 using a Geophysical Survey Systems SIR 2000 instrument with a 400 MHz antenna.

Excluding the known and active USTs centered near grid coordinates X=210 Y=175, the geophysical investigation detected two possible, metallic USTs or junctions of buried conduits centered near grid coordinates X=120 Y=63.

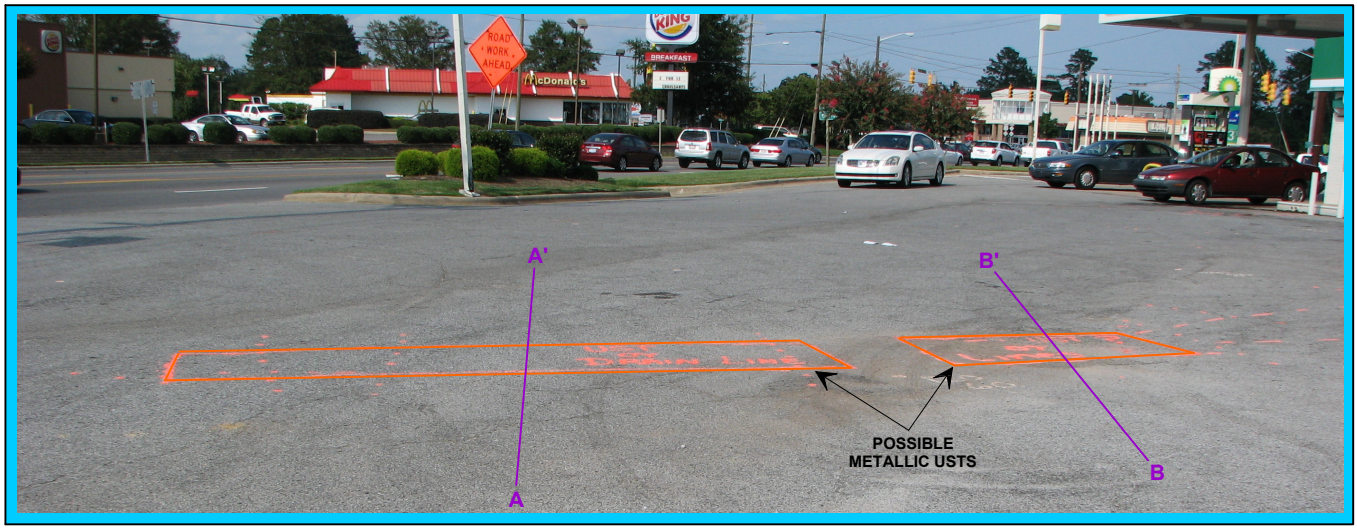
CLIENT	TERRACON CONSULTANTS, INC.
SITE	RDI, LLC PROPERTY (PARCEL 6)
CITY	GREENVILLE
STATE	NORTH CAROLINA
TITLE	GEOPHYSICAL RESULTS
J.-NO.	2012-212
DWG	FIGURE
DRWN	MJD
CH'KD	
DATE	09/24/12
LAY	

GRAPHIC SCALE IN FEET

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.



The GPR images obtained along a portion of survey lines X=115 and X=125 recorded two higher amplitude, hyperbolic anomalies that may possibly be in response to metallic USTs or a junction of buried conduits. The two possible (low confidence) USTs are centered near grid coordinates X=113 Y=62.5 and X=125 Y=63.5. The solid purple lines labeled AA' and BB' in the photograph below represent the approximate locations of the GPR images. The orange rectangles in the photograph represent the approximate foot prints of the possible metallic USTs or conduits, as suggested by the geophysical data.



The orange rectangles in the photograph represent the approximate perimeters of two possible USTs or junctions of buried conduits. The possible UST centered near grid coordinates X=113 Y=62.5 (left) is approximately 15 feet long, 3 feet wide and buried 2.25 feet below pavement. The possible UST centered near grid coordinates X=125 Y=63.5 (right) is approximately 7 feet long, 3 feet wide and buried 1.75 feet below pavement. The solid purple lines in the photograph represent the approximate locations of the GPR images shown above. The photograph is viewed in a northerly direction.

PYRAMID
ENVIRONMENTAL & ENGINEERING, P.C.

CLIENT	TERRACON CONSULTANTS, INC.		DATE	09/24/12	DRWN MJD
SITE	RDI, LLC PROPERTY (PARCEL 6)		LAY		CHKD
CITY	GREENVILLE	STATE NORTH CAROLINA	DWG		
TITLE	GEOPHYSICAL RESULTS		JOB	2012-212	FIGURE

GPR IMAGES ACROSS POSSIBLE USTS OR CONDUITS

FIGURE 4

APPENDIX C

Laboratory Analytical Reports and Chain of Custody

Laboratory Report of Analysis

To: Steve Kerlin
Terracon
5240 Greens Dairy Rd
Raleigh, NC 27616

Report Number: **31202905**

Client Project: **70127335 U-3315 #6**

Dear Steve Kerlin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael D. Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Michael D. Page Date
Project Manager
michael.page@sgs.com

Print Date: 09/21/2012 N.C. Certification # 481

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration.
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
S-1	31202905001	09/11/2012 09:42	09/12/2012 14:20	Soil-Solid as dry weight
S-2	31202905002	09/11/2012 09:48	09/12/2012 14:20	Soil-Solid as dry weight
S-3	31202905003	09/11/2012 10:27	09/12/2012 14:20	Soil-Solid as dry weight
S-4	31202905004	09/11/2012 11:15	09/12/2012 14:20	Soil-Solid as dry weight
S-5	31202905005	09/11/2012 11:36	09/12/2012 14:20	Soil-Solid as dry weight
S-6	31202905006	09/11/2012 12:20	09/12/2012 14:20	Soil-Solid as dry weight
S-7	31202905007	09/11/2012 13:50	09/12/2012 14:20	Soil-Solid as dry weight
S-8	31202905008	09/11/2012 14:54	09/12/2012 14:20	Soil-Solid as dry weight
S-9	31202905009	09/11/2012 16:50	09/12/2012 14:20	Soil-Solid as dry weight
S-10	31202905010	09/11/2012 17:39	09/12/2012 14:20	Soil-Solid as dry weight
S-11	31202905011	09/11/2012 18:15	09/12/2012 14:20	Soil-Solid as dry weight
TW-2	31202905012	09/11/2012 17:23	09/12/2012 14:20	Water

Results of **S-1**

Client Sample ID: **S-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905001-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 09:42
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.70

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.11	mg/kg	1	09/13/2012 15:41
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	09/13/2012 15:41

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:08**
Prep Initial Wt./Vol.: **7.5 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-1**

Client Sample ID: **S-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905001-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 09:42
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.70

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.18	mg/kg	1	09/14/2012 20:36
Surrogates						
o-Terphenyl	94.3		40.0-140	%	1	09/14/2012 20:36

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **32.5 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-2**

Client Sample ID: **S-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905002-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 09:48
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 89.40

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.24	mg/kg	1	09/13/2012 16:06
Surrogates						
4-Bromofluorobenzene	102		70.0-130	%	1	09/13/2012 16:06

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:09**
Prep Initial Wt./Vol.: **6.9 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-2**

Client Sample ID: **S-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905002-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 09:48
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 89.40

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**7.75**		6.99	mg/kg	1	09/14/2012 21:04
Surrogates						
o-Terphenyl	96.7		40.0-140	%	1	09/14/2012 21:04

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **31.99 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-3**

Client Sample ID: **S-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905003-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 10:27
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 88.40

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		2.78	mg/kg	1	09/13/2012 16:31
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	09/13/2012 16:31

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:10**
Prep Initial Wt./Vol.: **8.13 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-3**

Client Sample ID: **S-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905003-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 10:27
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 88.40

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.01	mg/kg	1	09/14/2012 21:33
Surrogates						
o-Terphenyl	89.9		40.0-140	%	1	09/14/2012 21:33

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **32.28 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-4**

Client Sample ID: **S-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905004-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 11:15
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		2.95	mg/kg	1	09/13/2012 16:57
Surrogates						
4-Bromofluorobenzene	100		70.0-130	%	1	09/13/2012 16:57

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:11**
Prep Initial Wt./Vol.: **7.83 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-4**

Client Sample ID: **S-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905004-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 11:15
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 86.70

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		6.70	mg/kg	1	09/14/2012 22:01
Surrogates						
o-Terphenyl	84.0		40.0-140	%	1	09/14/2012 22:01

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **34.44 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-5**

Client Sample ID: **S-5**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905005-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 11:36
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.01	mg/kg	1	09/13/2012 17:22
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	09/13/2012 17:22

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:11**
Prep Initial Wt./Vol.: **7.81 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-5**

Client Sample ID: **S-5**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905005-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 11:36
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.10

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		6.68	mg/kg	1	09/14/2012 22:29
Surrogates						
o-Terphenyl	92.8		40.0-140	%	1	09/14/2012 22:29

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **35.16 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-6**

Client Sample ID: **S-6**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905006-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 12:20
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.50

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.22	mg/kg	1	09/13/2012 17:47
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	09/13/2012 17:47

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:12**
Prep Initial Wt./Vol.: **7.35 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-6**

Client Sample ID: **S-6**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905006-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 12:20
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.50

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**8.09**		6.88	mg/kg	1	09/14/2012 22:57
Surrogates						
o-Terphenyl	88.7		40.0-140	%	1	09/14/2012 22:57

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **34.44 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-7**

Client Sample ID: **S-7**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905007-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 13:50
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.80

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.12	mg/kg	1	09/13/2012 18:12
Surrogates						
4-Bromofluorobenzene	102		70.0-130	%	1	09/13/2012 18:12

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:13**
Prep Initial Wt./Vol.: **7.47 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-7**

Client Sample ID: **S-7**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905007-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 13:50
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 85.80

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		6.92	mg/kg	1	09/14/2012 23:26
Surrogates						
o-Terphenyl	90.9		40.0-140	%	1	09/14/2012 23:26

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **33.69 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-8**

Client Sample ID: **S-8**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905008-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 14:54
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 81.30

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.60	mg/kg	1	09/13/2012 18:37
Surrogates						
4-Bromofluorobenzene	100		70.0-130	%	1	09/13/2012 18:37

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:14**
Prep Initial Wt./Vol.: **6.84 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-8**

Client Sample ID: **S-8**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905008-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 14:54
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 81.30

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.44	mg/kg	1	09/14/2012 23:54
Surrogates						
o-Terphenyl	91.5		40.0-140	%	1	09/14/2012 23:54

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **33.05 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-9**

Client Sample ID: **S-9**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905009-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 16:50
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 81.20

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.34	mg/kg	1	09/13/2012 19:03
Surrogates						
4-Bromofluorobenzene	99.9		70.0-130	%	1	09/13/2012 19:03

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:15**
Prep Initial Wt./Vol.: **7.37 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

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Results of **S-9**

Client Sample ID: **S-9**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905009-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 16:50
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 81.20

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.68	mg/kg	1	09/15/2012 0:22
Surrogates						
o-Terphenyl	82.7		40.0-140	%	1	09/15/2012 0:22

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **32.05 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-10**

Client Sample ID: **S-10**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905010-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:39
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.10

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.20	mg/kg	1	09/13/2012 19:28
Surrogates						
4-Bromofluorobenzene	96.2		70.0-130	%	1	09/13/2012 19:28

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:16**
Prep Initial Wt./Vol.: **7.43 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-10**

Client Sample ID: **S-10**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905010-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:39
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.10

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.21	mg/kg	1	09/15/2012 0:50
Surrogates						
o-Terphenyl	86.7		40.0-140	%	1	09/15/2012 0:50

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **32.98 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

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Results of **S-11**

Client Sample ID: **S-11**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905011-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 18:15
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.00

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.56	mg/kg	1	09/13/2012 19:53
Surrogates						
4-Bromofluorobenzene	102		70.0-130	%	1	09/13/2012 19:53

Batch Information

Analytical Batch: **VGC2139**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX3996**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/13/2012 11:18**
Prep Initial Wt./Vol.: **6.68 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

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Results of **S-11**

Client Sample ID: **S-11**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905011-C
Lab Project ID: 31202905

Collection Date: 09/11/2012 18:15
Received Date: 09/12/2012 14:20
Matrix: Soil-Solid as dry weight
Solids (%): 84.00

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		6.77	mg/kg	1	09/15/2012 1:18
Surrogates						
o-Terphenyl	103		40.0-140	%	1	09/15/2012 1:18

Batch Information

Analytical Batch: **XGC2534**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3045**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/13/2012 17:03**
Prep Initial Wt./Vol.: **35.17 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,1,1-Trichloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,1,2,2-Tetrachloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,1,2-Trichloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,1-Dichloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,1-Dichloroethene	ND		1.00	ug/L	1	09/13/2012 16:41
1,1-Dichloropropene	ND		1.00	ug/L	1	09/13/2012 16:41
1,2,3-Trichlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,2,3-Trichloropropane	ND		1.00	ug/L	1	09/13/2012 16:41
1,2,4-Trichlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,2,4-Trimethylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,2-Dibromo-3-chloropropane	ND		5.00	ug/L	1	09/13/2012 16:41
1,2-Dibromoethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,2-Dichlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,2-Dichloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
1,2-Dichloropropane	ND		1.00	ug/L	1	09/13/2012 16:41
1,3,5-Trimethylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,3-Dichlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
1,3-Dichloropropane	ND		1.00	ug/L	1	09/13/2012 16:41
1,4-Dichlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
2,2-Dichloropropane	ND		1.00	ug/L	1	09/13/2012 16:41
2-Butanone	ND		25.0	ug/L	1	09/13/2012 16:41
2-Chlorotoluene	ND		1.00	ug/L	1	09/13/2012 16:41
2-Hexanone	ND		5.00	ug/L	1	09/13/2012 16:41
4-Chlorotoluene	ND		1.00	ug/L	1	09/13/2012 16:41
4-Isopropyltoluene	ND		1.00	ug/L	1	09/13/2012 16:41
4-Methyl-2-pentanone	ND		5.00	ug/L	1	09/13/2012 16:41
Acetone	ND		25.0	ug/L	1	09/13/2012 16:41
Benzene	ND		1.00	ug/L	1	09/13/2012 16:41
Bromobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
Bromochloromethane	ND		1.00	ug/L	1	09/13/2012 16:41
Bromodichloromethane	ND		1.00	ug/L	1	09/13/2012 16:41
Bromoform	ND		1.00	ug/L	1	09/13/2012 16:41
Bromomethane	ND		1.00	ug/L	1	09/13/2012 16:41
n-Butylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
Carbon disulfide	ND		1.00	ug/L	1	09/13/2012 16:41
Carbon tetrachloride	ND		1.00	ug/L	1	09/13/2012 16:41
Chlorobenzene	ND		1.00	ug/L	1	09/13/2012 16:41
Chloroethane	ND		1.00	ug/L	1	09/13/2012 16:41
Chloroform	ND		1.00	ug/L	1	09/13/2012 16:41
Chloromethane	ND		1.00	ug/L	1	09/13/2012 16:41
Dibromochloromethane	ND		1.00	ug/L	1	09/13/2012 16:41
Dibromomethane	ND		1.00	ug/L	1	09/13/2012 16:41

Print Date: 09/21/2012

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Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-A
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		5.00	ug/L	1	09/13/2012 16:41
cis-1,3-Dichloropropene	ND		1.00	ug/L	1	09/13/2012 16:41
trans-1,3-Dichloropropene	ND		1.00	ug/L	1	09/13/2012 16:41
Diisopropyl Ether	ND		1.00	ug/L	1	09/13/2012 16:41
Ethyl Benzene	ND		1.00	ug/L	1	09/13/2012 16:41
Hexachlorobutadiene	ND		1.00	ug/L	1	09/13/2012 16:41
Isopropylbenzene (Cumene)	ND		1.00	ug/L	1	09/13/2012 16:41
Methyl iodide	ND		1.00	ug/L	1	09/13/2012 16:41
Methylene chloride	ND		5.00	ug/L	1	09/13/2012 16:41
Naphthalene	ND		1.00	ug/L	1	09/13/2012 16:41
Styrene	ND		1.00	ug/L	1	09/13/2012 16:41
Tetrachloroethene	ND		1.00	ug/L	1	09/13/2012 16:41
Toluene	ND		1.00	ug/L	1	09/13/2012 16:41
Trichloroethene	ND		1.00	ug/L	1	09/13/2012 16:41
Trichlorofluoromethane	ND		1.00	ug/L	1	09/13/2012 16:41
Vinyl chloride	ND		1.00	ug/L	1	09/13/2012 16:41
Xylene (total)	ND		2.00	ug/L	1	09/13/2012 16:41
cis-1,2-Dichloroethene	ND		1.00	ug/L	1	09/13/2012 16:41
m,p-Xylene	ND		2.00	ug/L	1	09/13/2012 16:41
n-Propylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
o-Xylene	ND		1.00	ug/L	1	09/13/2012 16:41
sec-Butylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
tert-Butyl methyl ether (MTBE)	**26.6**		1.00	ug/L	1	09/13/2012 16:41
tert-Butylbenzene	ND		1.00	ug/L	1	09/13/2012 16:41
trans-1,2-Dichloroethene	ND		1.00	ug/L	1	09/13/2012 16:41
trans-1,4-Dichloro-2-butene	ND		5.00	ug/L	1	09/13/2012 16:41
Surrogates						
1,2-Dichloroethane-d4	103		64.0-140	%	1	09/13/2012 16:41
4-Bromofluorobenzene	99.0		85.0-115	%	1	09/13/2012 16:41
Toluene d8	103		82.0-117	%	1	09/13/2012 16:41

Batch Information

Analytical Batch: **VMS2548**
Analytical Method: **SW-846 8260B**
Instrument: **MSD4**
Analyst: **BWS**

Prep Batch: **VXX3990**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/13/2012 08:33**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

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Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-D
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		100	ug/L	1	09/18/2012 14:49
C9-C10 Aromatics	ND		100	ug/L	1	09/18/2012 14:49
C9-C12 Aliphatics	ND		100	ug/L	1	09/18/2012 14:49
Surrogates						
FID - 4-Bromofluorobenzene	95.0		70.0-130	%	1	09/18/2012 14:49
PID - 4-Bromofluorobenzene	78.0		70.0-130	%	1	09/18/2012 14:49

Batch Information

Analytical Batch: **VGC2143**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4014**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 15:33**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-F
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
1,2-Dichlorobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
1,3-Dichlorobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
1,4-Dichlorobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
2,4,5-Trichlorophenol	ND		5.21	ug/L	1	09/19/2012 18:57
2,4,6-Trichlorophenol	ND		5.21	ug/L	1	09/19/2012 18:57
2,4-Dichlorophenol	ND		5.21	ug/L	1	09/19/2012 18:57
2,4-Dinitrophenol	ND		26.0	ug/L	1	09/19/2012 18:57
2,4-Dinitrotoluene	ND		5.21	ug/L	1	09/19/2012 18:57
2,6-Dinitrotoluene	ND		5.21	ug/L	1	09/19/2012 18:57
2-Chloronaphthalene	ND		5.21	ug/L	1	09/19/2012 18:57
2-Chlorophenol	ND		5.21	ug/L	1	09/19/2012 18:57
2-Methylnaphthalene	ND		5.21	ug/L	1	09/19/2012 18:57
2-Methylphenol	ND		5.21	ug/L	1	09/19/2012 18:57
2-Nitroaniline	ND		5.21	ug/L	1	09/19/2012 18:57
2-Nitrophenol	ND		5.21	ug/L	1	09/19/2012 18:57
3 and/or 4-Methylphenol	ND		5.21	ug/L	1	09/19/2012 18:57
3,3'-Dichlorobenzidine	ND		10.4	ug/L	1	09/19/2012 18:57
3-Nitroaniline	ND		26.0	ug/L	1	09/19/2012 18:57
4,6-Dinitro-2-methylphenol	ND		26.0	ug/L	1	09/19/2012 18:57
4-Chloro-3-methylphenol	ND		5.21	ug/L	1	09/19/2012 18:57
4-Chloroaniline	ND		26.0	ug/L	1	09/19/2012 18:57
4-Chlorophenyl phenyl ether	ND		5.21	ug/L	1	09/19/2012 18:57
Acenaphthene	ND		5.21	ug/L	1	09/19/2012 18:57
Acenaphthylene	ND		5.21	ug/L	1	09/19/2012 18:57
Anthracene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzo(a)anthracene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzo(a)pyrene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzo(b)fluoranthene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzo(g,h,i)perylene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzo(k)fluoranthene	ND		5.21	ug/L	1	09/19/2012 18:57
Benzoic acid	ND		5.21	ug/L	1	09/19/2012 18:57
Bis(2-Chloroethoxy)methane	ND		5.21	ug/L	1	09/19/2012 18:57
Bis(2-Chloroethyl)ether	ND		5.21	ug/L	1	09/19/2012 18:57
Bis(2-Chloroisopropyl)ether	ND		5.21	ug/L	1	09/19/2012 18:57
Bis(2-Ethylhexyl)phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
4-Bromophenyl phenyl ether	ND		5.21	ug/L	1	09/19/2012 18:57
Butyl benzyl phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
Chrysene	ND		5.21	ug/L	1	09/19/2012 18:57
Di-n-butyl phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
Di-n-octyl phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
Dibenz(a,h)anthracene	ND		5.21	ug/L	1	09/19/2012 18:57
Dibenzofuran	ND		5.21	ug/L	1	09/19/2012 18:57

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-F
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
Dimethyl phthalate	ND		5.21	ug/L	1	09/19/2012 18:57
2,4-Dimethylphenol	ND		5.21	ug/L	1	09/19/2012 18:57
Diphenylamine	ND		5.21	ug/L	1	09/19/2012 18:57
Fluoranthene	ND		5.21	ug/L	1	09/19/2012 18:57
Fluorene	ND		5.21	ug/L	1	09/19/2012 18:57
Hexachlorobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
Hexachlorobutadiene	ND		5.21	ug/L	1	09/19/2012 18:57
Hexachlorocyclopentadiene	ND		10.4	ug/L	1	09/19/2012 18:57
Hexachloroethane	ND		5.21	ug/L	1	09/19/2012 18:57
Indeno(1,2,3-cd)pyrene	ND		5.21	ug/L	1	09/19/2012 18:57
Isophorone	ND		5.21	ug/L	1	09/19/2012 18:57
Naphthalene	ND		5.21	ug/L	1	09/19/2012 18:57
4-Nitroaniline	ND		26.0	ug/L	1	09/19/2012 18:57
Nitrobenzene	ND		5.21	ug/L	1	09/19/2012 18:57
4-Nitrophenol	ND		26.0	ug/L	1	09/19/2012 18:57
Pentachlorophenol	ND		26.0	ug/L	1	09/19/2012 18:57
Phenanthrene	ND		5.21	ug/L	1	09/19/2012 18:57
Phenol	ND		5.21	ug/L	1	09/19/2012 18:57
Pyrene	ND		5.21	ug/L	1	09/19/2012 18:57
n-Nitrosodi-n-propylamine	ND		5.21	ug/L	1	09/19/2012 18:57
Surrogates						
2,4,6-Tribromophenol	106		29.3-152	%	1	09/19/2012 18:57
2-Fluorobiphenyl	99.0		50.0-107	%	1	09/19/2012 18:57
2-Fluorophenol	78.0		33.1-118	%	1	09/19/2012 18:57
Nitrobenzene-d5	97.0		46.0-118	%	1	09/19/2012 18:57
Phenol-d6	99.0		49.0-120	%	1	09/19/2012 18:57
Terphenyl-d14	112		22.1-142	%	1	09/19/2012 18:57

Batch Information

Analytical Batch: **XMS1669**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3053**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/17/2012 10:29**
Prep Initial Wt./Vol.: **960 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-2**

Client Sample ID: **TW-2**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202905012-H
Lab Project ID: 31202905

Collection Date: 09/11/2012 17:23
Received Date: 09/12/2012 14:20
Matrix: Water

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		0.0885	mg/L	1	09/21/2012 0:24
C19-C36 Aliphatics	ND		0.0417	mg/L	1	09/20/2012 23:55
C9-C18 Aliphatics	ND		0.0313	mg/L	1	09/20/2012 23:55
Surrogates						
2-Bromonaphthalene	83.2		40.0-140	%	1	09/21/2012 0:24
2-Fluorobiphenyl	90.0		40.0-140	%	1	09/21/2012 0:24
n-Tricosane	123		40.0-140	%	1	09/20/2012 23:55
o-Terphenyl	88.0		40.0-140	%	1	09/21/2012 0:24

Batch Information

Analytical Batch: **XGC2549**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3064**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:33**
Prep Initial Wt./Vol.: **960 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

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104681

(1)
CLIENT: TERRACON
CONTACT: LORI HOFFMAN PHONE NO:(919) 873-2211
PROJECT: ~~D8~~70127335 SITE/PWSID#: U-3315 #6
REPORTS TO: Lori Hoffman
lchoffman@terracon.com FAX NO.:( )
INVOICE TO: NCDOT QUOTE #:
P.O. NUMBER:

SGS Reference: 31202905

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used	METH	NA	Analysis Required (3) GRO	DRO	REMARKS
	S-1	9-11-12	0942	SOIL	3	G				X	X	
	S-2		0948									
	S-3		1027									
	S-4		1115									
	S-5		1136									
	S-6		1220									
	S-7		1350									
	~~S~~S-8		1454									
	S-9		1650									
	S-10		1739									

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:	
BEN SWIFT	9-11-12	2025		9/12/12 1050
Relinquished By: (2)	Date	Time	Received By:	
	9/12/12	1420		
Relinquished By: (3)	Date	Time	Received By:	
Relinquished By: (4)	Date	Time	Received By:	

(4)

Shipping Carrier:
Shipping Ticket No:
Samples Received Cold? (Circle) YES NO
Temperature°C: 0.2°C
Special Deliverable Requirements:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Special Instructions:
Requested Turnaround Time:
☐ RUSH _____ Date Needed ☑ STD

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

CHAIN OF COUSTODY

SGS | ANALYTICAL PERSPECTIVES

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

CLIENT: Terracon
CONTACT: Lori Hoffman **PHONE NO:** (919) 873-2211
PROJECT: 70127335 **SITE / PWSID / WBS #:** U-3315 #6
REPORTS TO: Lori Hoffman
EMAIL: lchoffman@terracon.com
INVOICE TO: NCDOT **QUOTE #** **P.O. NUMBER**

SGS Reference #: 31202905

PAGE 2 **OF** 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	GRO	DRO	VOCs (8260)	SVOCs (8270)	MADEP EPH	MADEP VPH				REMARKS
PRESERVATIVES USED							MEOH	N/A	HCl	—	~~ADA~~ HCl	~~MEOH~~ HCl				
	S-11	9-11-12	1815	SOIL	3	G	X	X								
	TW-2	〃	1723	GW	9	G			X	X	X	X				

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:
Ben Swift	9-11-12	2025	[signature] 9/12/12 10:50
Relinquished By: (2) [signature]	Date 9/12/12	Time 1420	Received By:
Relinquished By: (3)	Date	Time	Received By:
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN (ABSENT) Sample Receipt Temp: C____

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

REQUESTED TURNAROUND TIME: ☐ Rush:____ ☒ Standard

SPECIAL DELIVERABLES: State of Origin:____ ☐ Trust Fund ☐ DoD ☐ EDD:____ Other:____

SPECIAL INSTRUCTIONS:

Shipping Carrier:
Shipping Ticket No:

Notes:

SGS-00055 (06/12)

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

White - Retained by Lab
Yellow - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-Terracon** Work Order No.: **31202905**

1. ___ Shipped
   X Hand Delivered

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.2
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   X HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. ___ No Discrepancies Noted
   X Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments: Two sets of samples labeled S-6, one set has collection time for S-7 and is most likely S-7.

Inspected and Logged in by: JJ

Date: Thu-9/13/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6

Laboratory Report of Analysis

To: Steve Kerlin
Terracon
5240 Greens Dairy Rd
Raleigh, NC 27616

Report Number: **31202941**

Client Project: **70127335 U-3315 #6**

Dear Steve Kerlin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael D. Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Michael D. Page Date
Project Manager
michael.page@sgs.com

Print Date: 09/21/2012 N.C. Certification # 481

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration.
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
S-12	31202941001	09/12/2012 08:26	09/17/2012 08:40	Soil-Solid as dry weight
S-13	31202941002	09/12/2012 08:35	09/17/2012 08:40	Soil-Solid as dry weight
S-14	31202941003	09/12/2012 09:12	09/17/2012 08:40	Soil-Solid as dry weight
S-15	31202941004	09/12/2012 09:52	09/17/2012 08:40	Soil-Solid as dry weight
S-16	31202941005	09/12/2012 10:48	09/17/2012 08:40	Soil-Solid as dry weight
S-17	31202941006	09/12/2012 11:37	09/17/2012 08:40	Soil-Solid as dry weight
S-18	31202941007	09/12/2012 12:03	09/17/2012 08:40	Soil-Solid as dry weight
TW-1	31202941008	09/12/2012 12:45	09/17/2012 08:40	Water
TW-3	31202941009	09/12/2012 12:33	09/17/2012 08:40	Water
TW-4	31202941010	09/12/2012 13:04	09/17/2012 08:40	Water

Results of **S-12**

Client Sample ID: **S-12**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941001-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 08:26
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.80

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.26	mg/kg	1	09/19/2012 13:24
Surrogates						
4-Bromofluorobenzene	104		70.0-130	%	1	09/19/2012 13:24

Batch Information

Analytical Batch: **VGC2147**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4024**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 12:41**
Prep Initial Wt./Vol.: **7.23 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-12**

Client Sample ID: **S-12**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941001-C
Lab Project ID: 31202941

Collection Date: 09/12/2012 08:26
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.80

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		6.76	mg/kg	1	09/18/2012 23:22
Surrogates						
o-Terphenyl	105		40.0-140	%	1	09/18/2012 23:22

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **34.91 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-13**

Client Sample ID: **S-13**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941002-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 08:35
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 78.40

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.06	mg/kg	1	09/18/2012 16:34
Surrogates						
4-Bromofluorobenzene	100		70.0-130	%	1	09/18/2012 16:34

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 12:41**
Prep Initial Wt./Vol.: **8.33 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-13**

Client Sample ID: **S-13**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941002-C
Lab Project ID: 31202941

Collection Date: 09/12/2012 08:35
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 78.40

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**16.0**		8.10	mg/kg	1	09/18/2012 23:50
Surrogates						
o-Terphenyl	104		40.0-140	%	1	09/18/2012 23:50

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **31.5 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-14**

Client Sample ID: **S-14**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941003-E
Lab Project ID: 31202941

Collection Date: 09/12/2012 09:12
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.40

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.70	mg/kg	1	09/18/2012 16:59
Surrogates						
4-Bromofluorobenzene	101		70.0-130	%	1	09/18/2012 16:59

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 12:49**
Prep Initial Wt./Vol.: **6.4 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-14**

Client Sample ID: **S-14**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941003-I
Lab Project ID: 31202941

Collection Date: 09/12/2012 09:12
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.40

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.16	mg/kg	1	09/19/2012 0:18
Surrogates						
o-Terphenyl	112		40.0-140	%	1	09/19/2012 0:18

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **33.09 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941004-E
Lab Project ID: 31202941

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 83.30

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.20	mg/kg	1	09/18/2012 17:25
Surrogates						
4-Bromofluorobenzene	103		70.0-130	%	1	09/18/2012 17:25

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 12:53**
Prep Initial Wt./Vol.: **7.51 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941004-I
Lab Project ID: 31202941

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 83.30

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**10.6**		6.99	mg/kg	1	09/19/2012 0:46
Surrogates						
o-Terphenyl	98.6		40.0-140	%	1	09/19/2012 0:46

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **34.36 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-16**

Client Sample ID: **S-16**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941005-E
Lab Project ID: 31202941

Collection Date: 09/12/2012 10:48
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 88.50

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.14	mg/kg	1	09/18/2012 17:50
Surrogates						
4-Bromofluorobenzene	99.5		70.0-130	%	1	09/18/2012 17:50

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 12:56**
Prep Initial Wt./Vol.: **7.19 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-16**

Client Sample ID: **S-16**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941005-I
Lab Project ID: 31202941

Collection Date: 09/12/2012 10:48
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 88.50

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**8.93**		6.78	mg/kg	1	09/19/2012 1:14
Surrogates						
o-Terphenyl	105		40.0-140	%	1	09/19/2012 1:14

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **33.3 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941006-E
Lab Project ID: 31202941

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 76.90

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		4.17	mg/kg	1	09/18/2012 18:15
Surrogates						
4-Bromofluorobenzene	103		70.0-130	%	1	09/18/2012 18:15

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 13:01**
Prep Initial Wt./Vol.: **6.23 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941006-I
Lab Project ID: 31202941

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 76.90

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	**635**		39.3	mg/kg	5	09/19/2012 18:25
Surrogates						
o-Terphenyl	101		40.0-140	%	5	09/19/2012 18:25

Batch Information

Analytical Batch: **XGC2541**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **33.11 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-18**

Client Sample ID: **S-18**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941007-E
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:03
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 80.00

Results by **SW-846 8015C GRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Gasoline Range Organics (GRO)	ND		3.75	mg/kg	1	09/18/2012 18:40
Surrogates						
4-Bromofluorobenzene	99.3		70.0-130	%	1	09/18/2012 18:40

Batch Information

Analytical Batch: **VGC2144**
Analytical Method: **SW-846 8015C GRO**
Instrument: **GC7**
Analyst: **MDY**

Prep Batch: **VXX4015**
Prep Method: **SW-846 5035**
Prep Date/Time: **09/17/2012 13:04**
Prep Initial Wt./Vol.: **6.66 g**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **S-18**

Client Sample ID: **S-18**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941007-I
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:03
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 80.00

Results by **SW-846 8015C DRO**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diesel Range Organics (DRO)	ND		7.20	mg/kg	1	09/19/2012 3:07
Surrogates						
o-Terphenyl	107		40.0-140	%	1	09/19/2012 3:07

Batch Information

Analytical Batch: **XGC2538**
Analytical Method: **SW-846 8015C DRO**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3060**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/18/2012 08:33**
Prep Initial Wt./Vol.: **34.74 g**
Prep Extract Vol: **10 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,1,1-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,1,2,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,1,2-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,1-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,1-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 15:40
1,1-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 15:40
1,2,3-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,2,3-Trichloropropane	ND		1.00	ug/L	1	09/18/2012 15:40
1,2,4-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,2,4-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,2-Dibromo-3-chloropropane	ND		5.00	ug/L	1	09/18/2012 15:40
1,2-Dibromoethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,2-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,2-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
1,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 15:40
1,3,5-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,3-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
1,3-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 15:40
1,4-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
2,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 15:40
2-Butanone	ND		25.0	ug/L	1	09/18/2012 15:40
2-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 15:40
2-Hexanone	ND		5.00	ug/L	1	09/18/2012 15:40
4-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 15:40
4-Isopropyltoluene	ND		1.00	ug/L	1	09/18/2012 15:40
4-Methyl-2-pentanone	ND		5.00	ug/L	1	09/18/2012 15:40
Acetone	ND		25.0	ug/L	1	09/18/2012 15:40
Benzene	ND		1.00	ug/L	1	09/18/2012 15:40
Bromobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
Bromochloromethane	ND		1.00	ug/L	1	09/18/2012 15:40
Bromodichloromethane	ND		1.00	ug/L	1	09/18/2012 15:40
Bromoform	ND		1.00	ug/L	1	09/18/2012 15:40
Bromomethane	ND		1.00	ug/L	1	09/18/2012 15:40
n-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
Carbon disulfide	ND		1.00	ug/L	1	09/18/2012 15:40
Carbon tetrachloride	ND		1.00	ug/L	1	09/18/2012 15:40
Chlorobenzene	ND		1.00	ug/L	1	09/18/2012 15:40
Chloroethane	ND		1.00	ug/L	1	09/18/2012 15:40
Chloroform	ND		1.00	ug/L	1	09/18/2012 15:40
Chloromethane	ND		1.00	ug/L	1	09/18/2012 15:40
Dibromochloromethane	ND		1.00	ug/L	1	09/18/2012 15:40
Dibromomethane	ND		1.00	ug/L	1	09/18/2012 15:40

Print Date: 09/21/2012

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Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		5.00	ug/L	1	09/18/2012 15:40
cis-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 15:40
trans-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 15:40
Diisopropyl Ether	ND		1.00	ug/L	1	09/18/2012 15:40
Ethyl Benzene	ND		1.00	ug/L	1	09/18/2012 15:40
Hexachlorobutadiene	ND		1.00	ug/L	1	09/18/2012 15:40
Isopropylbenzene (Cumene)	ND		1.00	ug/L	1	09/18/2012 15:40
Methyl iodide	ND		1.00	ug/L	1	09/18/2012 15:40
Methylene chloride	ND		5.00	ug/L	1	09/18/2012 15:40
Naphthalene	ND		1.00	ug/L	1	09/18/2012 15:40
Styrene	ND		1.00	ug/L	1	09/18/2012 15:40
Tetrachloroethene	ND		1.00	ug/L	1	09/18/2012 15:40
Toluene	ND		1.00	ug/L	1	09/18/2012 15:40
Trichloroethene	ND		1.00	ug/L	1	09/18/2012 15:40
Trichlorofluoromethane	ND		1.00	ug/L	1	09/18/2012 15:40
Vinyl chloride	ND		1.00	ug/L	1	09/18/2012 15:40
Xylene (total)	ND		2.00	ug/L	1	09/18/2012 15:40
cis-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 15:40
m,p-Xylene	ND		2.00	ug/L	1	09/18/2012 15:40
n-Propylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
o-Xylene	ND		1.00	ug/L	1	09/18/2012 15:40
sec-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
tert-Butyl methyl ether (MTBE)	ND		1.00	ug/L	1	09/18/2012 15:40
tert-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 15:40
trans-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 15:40
trans-1,4-Dichloro-2-butene	ND		5.00	ug/L	1	09/18/2012 15:40
Surrogates						
1,2-Dichloroethane-d4	101		64.0-140	%	1	09/18/2012 15:40
4-Bromofluorobenzene	103		85.0-115	%	1	09/18/2012 15:40
Toluene d8	104		82.0-117	%	1	09/18/2012 15:40

Batch Information

Analytical Batch: **VMS2558**
Analytical Method: **SW-846 8260B**
Instrument: **MSD4**
Analyst: **BWS**

Prep Batch: **VXX4013**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 08:30**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

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Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-D
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		100	ug/L	1	09/18/2012 13:30
C9-C10 Aromatics	ND		100	ug/L	1	09/18/2012 13:30
C9-C12 Aliphatics	ND		100	ug/L	1	09/18/2012 13:30
Surrogates						
FID - 4-Bromofluorobenzene	101		70.0-130	%	1	09/18/2012 13:30
PID - 4-Bromofluorobenzene	82.0		70.0-130	%	1	09/18/2012 13:30

Batch Information

Analytical Batch: **VGC2143**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4014**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 15:33**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

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Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
1,2-Dichlorobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
1,3-Dichlorobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
1,4-Dichlorobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
2,4,5-Trichlorophenol	ND		5.26	ug/L	1	09/20/2012 14:20
2,4,6-Trichlorophenol	ND		5.26	ug/L	1	09/20/2012 14:20
2,4-Dichlorophenol	ND		5.26	ug/L	1	09/20/2012 14:20
2,4-Dinitrophenol	ND		26.3	ug/L	1	09/20/2012 14:20
2,4-Dinitrotoluene	ND		5.26	ug/L	1	09/20/2012 14:20
2,6-Dinitrotoluene	ND		5.26	ug/L	1	09/20/2012 14:20
2-Chloronaphthalene	ND		5.26	ug/L	1	09/20/2012 14:20
2-Chlorophenol	ND		5.26	ug/L	1	09/20/2012 14:20
2-Methylnaphthalene	ND		5.26	ug/L	1	09/20/2012 14:20
2-Methylphenol	ND		5.26	ug/L	1	09/20/2012 14:20
2-Nitroaniline	ND		5.26	ug/L	1	09/20/2012 14:20
2-Nitrophenol	ND		5.26	ug/L	1	09/20/2012 14:20
3 and/or 4-Methylphenol	ND		5.26	ug/L	1	09/20/2012 14:20
3,3'-Dichlorobenzidine	ND		10.5	ug/L	1	09/20/2012 14:20
3-Nitroaniline	ND		26.3	ug/L	1	09/20/2012 14:20
4,6-Dinitro-2-methylphenol	ND		26.3	ug/L	1	09/20/2012 14:20
4-Chloro-3-methylphenol	ND		5.26	ug/L	1	09/20/2012 14:20
4-Chloroaniline	ND		26.3	ug/L	1	09/20/2012 14:20
4-Chlorophenyl phenyl ether	ND		5.26	ug/L	1	09/20/2012 14:20
Acenaphthene	ND		5.26	ug/L	1	09/20/2012 14:20
Acenaphthylene	ND		5.26	ug/L	1	09/20/2012 14:20
Anthracene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzo(a)anthracene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzo(a)pyrene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzo(b)fluoranthene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzo(g,h,i)perylene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzo(k)fluoranthene	ND		5.26	ug/L	1	09/20/2012 14:20
Benzoic acid	ND		5.26	ug/L	1	09/20/2012 14:20
Bis(2-Chloroethoxy)methane	ND		5.26	ug/L	1	09/20/2012 14:20
Bis(2-Chloroethyl)ether	ND		5.26	ug/L	1	09/20/2012 14:20
Bis(2-Chloroisopropyl)ether	ND		5.26	ug/L	1	09/20/2012 14:20
Bis(2-Ethylhexyl)phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
4-Bromophenyl phenyl ether	ND		5.26	ug/L	1	09/20/2012 14:20
Butyl benzyl phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
Chrysene	ND		5.26	ug/L	1	09/20/2012 14:20
Di-n-butyl phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
Di-n-octyl phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
Dibenz(a,h)anthracene	ND		5.26	ug/L	1	09/20/2012 14:20
Dibenzofuran	ND		5.26	ug/L	1	09/20/2012 14:20

Print Date: 09/21/2012

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Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
Dimethyl phthalate	ND		5.26	ug/L	1	09/20/2012 14:20
2,4-Dimethylphenol	ND		5.26	ug/L	1	09/20/2012 14:20
Diphenylamine	ND		5.26	ug/L	1	09/20/2012 14:20
Fluoranthene	ND		5.26	ug/L	1	09/20/2012 14:20
Fluorene	ND		5.26	ug/L	1	09/20/2012 14:20
Hexachlorobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
Hexachlorobutadiene	ND		5.26	ug/L	1	09/20/2012 14:20
Hexachlorocyclopentadiene	ND		10.5	ug/L	1	09/20/2012 14:20
Hexachloroethane	ND		5.26	ug/L	1	09/20/2012 14:20
Indeno(1,2,3-cd)pyrene	ND		5.26	ug/L	1	09/20/2012 14:20
Isophorone	ND		5.26	ug/L	1	09/20/2012 14:20
Naphthalene	ND		5.26	ug/L	1	09/20/2012 14:20
4-Nitroaniline	ND		26.3	ug/L	1	09/20/2012 14:20
Nitrobenzene	ND		5.26	ug/L	1	09/20/2012 14:20
4-Nitrophenol	ND		26.3	ug/L	1	09/20/2012 14:20
Pentachlorophenol	ND		26.3	ug/L	1	09/20/2012 14:20
Phenanthrene	ND		5.26	ug/L	1	09/20/2012 14:20
Phenol	ND		5.26	ug/L	1	09/20/2012 14:20
Pyrene	ND		5.26	ug/L	1	09/20/2012 14:20
n-Nitrosodi-n-propylamine	ND		5.26	ug/L	1	09/20/2012 14:20
Surrogates						
2,4,6-Tribromophenol	94.0		29.3-152	%	1	09/20/2012 14:20
2-Fluorobiphenyl	80.0		50.0-107	%	1	09/20/2012 14:20
2-Fluorophenol	59.0		33.1-118	%	1	09/20/2012 14:20
Nitrobenzene-d5	77.0		46.0-118	%	1	09/20/2012 14:20
Phenol-d6	77.0		49.0-120	%	1	09/20/2012 14:20
Terphenyl-d14	99.0		22.1-142	%	1	09/20/2012 14:20

Batch Information

Analytical Batch: **XMS1670**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3066**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:37**
Prep Initial Wt./Vol.: **950 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

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Results of **TW-1**

Client Sample ID: **TW-1**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941008-H
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:45
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		0.0904	mg/L	1	09/21/2012 1:21
C19-C36 Aliphatics	ND		0.0426	mg/L	1	09/21/2012 0:52
C9-C18 Aliphatics	ND		0.0319	mg/L	1	09/21/2012 0:52
Surrogates						
2-Bromonaphthalene	84.2		40.0-140	%	1	09/21/2012 1:21
2-Fluorobiphenyl	91.0		40.0-140	%	1	09/21/2012 1:21
n-Tricosane	85.0		40.0-140	%	1	09/21/2012 0:52
o-Terphenyl	68.0		40.0-140	%	1	09/21/2012 1:21

Batch Information

Analytical Batch: **XGC2549**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3064**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:33**
Prep Initial Wt./Vol.: **940 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,1,1-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,1,2,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,1,2-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,1-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,1-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:04
1,1-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:04
1,2,3-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,2,3-Trichloropropane	ND		1.00	ug/L	1	09/18/2012 16:04
1,2,4-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,2,4-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,2-Dibromo-3-chloropropane	ND		5.00	ug/L	1	09/18/2012 16:04
1,2-Dibromoethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,2-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,2-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
1,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:04
1,3,5-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,3-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
1,3-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:04
1,4-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
2,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:04
2-Butanone	ND		25.0	ug/L	1	09/18/2012 16:04
2-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 16:04
2-Hexanone	ND		5.00	ug/L	1	09/18/2012 16:04
4-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 16:04
4-Isopropyltoluene	ND		1.00	ug/L	1	09/18/2012 16:04
4-Methyl-2-pentanone	ND		5.00	ug/L	1	09/18/2012 16:04
Acetone	ND		25.0	ug/L	1	09/18/2012 16:04
Benzene	ND		1.00	ug/L	1	09/18/2012 16:04
Bromobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
Bromochloromethane	ND		1.00	ug/L	1	09/18/2012 16:04
Bromodichloromethane	ND		1.00	ug/L	1	09/18/2012 16:04
Bromoform	ND		1.00	ug/L	1	09/18/2012 16:04
Bromomethane	ND		1.00	ug/L	1	09/18/2012 16:04
n-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
Carbon disulfide	ND		1.00	ug/L	1	09/18/2012 16:04
Carbon tetrachloride	ND		1.00	ug/L	1	09/18/2012 16:04
Chlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:04
Chloroethane	ND		1.00	ug/L	1	09/18/2012 16:04
Chloroform	ND		1.00	ug/L	1	09/18/2012 16:04
Chloromethane	ND		1.00	ug/L	1	09/18/2012 16:04
Dibromochloromethane	ND		1.00	ug/L	1	09/18/2012 16:04
Dibromomethane	ND		1.00	ug/L	1	09/18/2012 16:04

Print Date: 09/21/2012

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Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		5.00	ug/L	1	09/18/2012 16:04
cis-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:04
trans-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:04
Diisopropyl Ether	ND		1.00	ug/L	1	09/18/2012 16:04
Ethyl Benzene	ND		1.00	ug/L	1	09/18/2012 16:04
Hexachlorobutadiene	ND		1.00	ug/L	1	09/18/2012 16:04
Isopropylbenzene (Cumene)	ND		1.00	ug/L	1	09/18/2012 16:04
Methyl iodide	ND		1.00	ug/L	1	09/18/2012 16:04
Methylene chloride	ND		5.00	ug/L	1	09/18/2012 16:04
Naphthalene	ND		1.00	ug/L	1	09/18/2012 16:04
Styrene	ND		1.00	ug/L	1	09/18/2012 16:04
Tetrachloroethene	ND		1.00	ug/L	1	09/18/2012 16:04
Toluene	ND		1.00	ug/L	1	09/18/2012 16:04
Trichloroethene	ND		1.00	ug/L	1	09/18/2012 16:04
Trichlorofluoromethane	ND		1.00	ug/L	1	09/18/2012 16:04
Vinyl chloride	ND		1.00	ug/L	1	09/18/2012 16:04
Xylene (total)	ND		2.00	ug/L	1	09/18/2012 16:04
cis-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:04
m,p-Xylene	ND		2.00	ug/L	1	09/18/2012 16:04
n-Propylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
o-Xylene	ND		1.00	ug/L	1	09/18/2012 16:04
sec-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
tert-Butyl methyl ether (MTBE)	**1.41**		1.00	ug/L	1	09/18/2012 16:04
tert-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:04
trans-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:04
trans-1,4-Dichloro-2-butene	ND		5.00	ug/L	1	09/18/2012 16:04
Surrogates						
1,2-Dichloroethane-d4	101		64.0-140	%	1	09/18/2012 16:04
4-Bromofluorobenzene	101		85.0-115	%	1	09/18/2012 16:04
Toluene d8	104		82.0-117	%	1	09/18/2012 16:04

Batch Information

Analytical Batch: **VMS2558**
Analytical Method: **SW-846 8260B**
Instrument: **MSD4**
Analyst: **BWS**

Prep Batch: **VXX4013**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 08:30**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-D
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		100	ug/L	1	09/18/2012 13:56
C9-C10 Aromatics	ND		100	ug/L	1	09/18/2012 13:56
C9-C12 Aliphatics	ND		100	ug/L	1	09/18/2012 13:56
Surrogates						
FID - 4-Bromofluorobenzene	94.0		70.0-130	%	1	09/18/2012 13:56
PID - 4-Bromofluorobenzene	78.0		70.0-130	%	1	09/18/2012 13:56

Batch Information

Analytical Batch: **VGC2143**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4014**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 15:33**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
1,2-Dichlorobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
1,3-Dichlorobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
1,4-Dichlorobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
2,4,5-Trichlorophenol	ND		5.23	ug/L	1	09/20/2012 14:43
2,4,6-Trichlorophenol	ND		5.23	ug/L	1	09/20/2012 14:43
2,4-Dichlorophenol	ND		5.23	ug/L	1	09/20/2012 14:43
2,4-Dinitrophenol	ND		26.2	ug/L	1	09/20/2012 14:43
2,4-Dinitrotoluene	ND		5.23	ug/L	1	09/20/2012 14:43
2,6-Dinitrotoluene	ND		5.23	ug/L	1	09/20/2012 14:43
2-Chloronaphthalene	ND		5.23	ug/L	1	09/20/2012 14:43
2-Chlorophenol	ND		5.23	ug/L	1	09/20/2012 14:43
2-Methylnaphthalene	ND		5.23	ug/L	1	09/20/2012 14:43
2-Methylphenol	ND		5.23	ug/L	1	09/20/2012 14:43
2-Nitroaniline	ND		5.23	ug/L	1	09/20/2012 14:43
2-Nitrophenol	ND		5.23	ug/L	1	09/20/2012 14:43
3 and/or 4-Methylphenol	ND		5.23	ug/L	1	09/20/2012 14:43
3,3'-Dichlorobenzidine	ND		10.5	ug/L	1	09/20/2012 14:43
3-Nitroaniline	ND		26.2	ug/L	1	09/20/2012 14:43
4,6-Dinitro-2-methylphenol	ND		26.2	ug/L	1	09/20/2012 14:43
4-Chloro-3-methylphenol	ND		5.23	ug/L	1	09/20/2012 14:43
4-Chloroaniline	ND		26.2	ug/L	1	09/20/2012 14:43
4-Chlorophenyl phenyl ether	ND		5.23	ug/L	1	09/20/2012 14:43
Acenaphthene	ND		5.23	ug/L	1	09/20/2012 14:43
Acenaphthylene	ND		5.23	ug/L	1	09/20/2012 14:43
Anthracene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzo(a)anthracene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzo(a)pyrene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzo(b)fluoranthene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzo(g,h,i)perylene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzo(k)fluoranthene	ND		5.23	ug/L	1	09/20/2012 14:43
Benzoic acid	ND		5.23	ug/L	1	09/20/2012 14:43
Bis(2-Chloroethoxy)methane	ND		5.23	ug/L	1	09/20/2012 14:43
Bis(2-Chloroethyl)ether	ND		5.23	ug/L	1	09/20/2012 14:43
Bis(2-Chloroisopropyl)ether	ND		5.23	ug/L	1	09/20/2012 14:43
Bis(2-Ethylhexyl)phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
4-Bromophenyl phenyl ether	ND		5.23	ug/L	1	09/20/2012 14:43
Butyl benzyl phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
Chrysene	ND		5.23	ug/L	1	09/20/2012 14:43
Di-n-butyl phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
Di-n-octyl phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
Dibenz(a,h)anthracene	ND		5.23	ug/L	1	09/20/2012 14:43
Dibenzofuran	ND		5.23	ug/L	1	09/20/2012 14:43

Print Date: 09/21/2012

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Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
Dimethyl phthalate	ND		5.23	ug/L	1	09/20/2012 14:43
2,4-Dimethylphenol	ND		5.23	ug/L	1	09/20/2012 14:43
Diphenylamine	ND		5.23	ug/L	1	09/20/2012 14:43
Fluoranthene	ND		5.23	ug/L	1	09/20/2012 14:43
Fluorene	ND		5.23	ug/L	1	09/20/2012 14:43
Hexachlorobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
Hexachlorobutadiene	ND		5.23	ug/L	1	09/20/2012 14:43
Hexachlorocyclopentadiene	ND		10.5	ug/L	1	09/20/2012 14:43
Hexachloroethane	ND		5.23	ug/L	1	09/20/2012 14:43
Indeno(1,2,3-cd)pyrene	ND		5.23	ug/L	1	09/20/2012 14:43
Isophorone	ND		5.23	ug/L	1	09/20/2012 14:43
Naphthalene	ND		5.23	ug/L	1	09/20/2012 14:43
4-Nitroaniline	ND		26.2	ug/L	1	09/20/2012 14:43
Nitrobenzene	ND		5.23	ug/L	1	09/20/2012 14:43
4-Nitrophenol	ND		26.2	ug/L	1	09/20/2012 14:43
Pentachlorophenol	ND		26.2	ug/L	1	09/20/2012 14:43
Phenanthrene	ND		5.23	ug/L	1	09/20/2012 14:43
Phenol	ND		5.23	ug/L	1	09/20/2012 14:43
Pyrene	ND		5.23	ug/L	1	09/20/2012 14:43
n-Nitrosodi-n-propylamine	ND		5.23	ug/L	1	09/20/2012 14:43
Surrogates						
2,4,6-Tribromophenol	102		29.3-152	%	1	09/20/2012 14:43
2-Fluorobiphenyl	93.0		50.0-107	%	1	09/20/2012 14:43
2-Fluorophenol	77.0		33.1-118	%	1	09/20/2012 14:43
Nitrobenzene-d5	92.0		46.0-118	%	1	09/20/2012 14:43
Phenol-d6	92.0		49.0-120	%	1	09/20/2012 14:43
Terphenyl-d14	102		22.1-142	%	1	09/20/2012 14:43

Batch Information

Analytical Batch: **XMS1670**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3066**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:37**
Prep Initial Wt./Vol.: **956 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

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Results of **TW-3**

Client Sample ID: **TW-3**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941009-H
Lab Project ID: 31202941

Collection Date: 09/12/2012 12:33
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		0.0911	mg/L	1	09/21/2012 2:18
C19-C36 Aliphatics	ND		0.0429	mg/L	1	09/21/2012 1:49
C9-C18 Aliphatics	ND		0.0322	mg/L	1	09/21/2012 1:49
Surrogates						
2-Bromonaphthalene	80.1		40.0-140	%	1	09/21/2012 2:18
2-Fluorobiphenyl	85.0		40.0-140	%	1	09/21/2012 2:18
n-Tricosane	98.0		40.0-140	%	1	09/21/2012 1:49
o-Terphenyl	65.0		40.0-140	%	1	09/21/2012 2:18

Batch Information

Analytical Batch: **XGC2549**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3064**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:33**
Prep Initial Wt./Vol.: **933 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

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Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,1,1-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,1,2,2-Tetrachloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,1,2-Trichloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,1-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,1-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:29
1,1-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:29
1,2,3-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,2,3-Trichloropropane	ND		1.00	ug/L	1	09/18/2012 16:29
1,2,4-Trichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,2,4-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,2-Dibromo-3-chloropropane	ND		5.00	ug/L	1	09/18/2012 16:29
1,2-Dibromoethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,2-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,2-Dichloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
1,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:29
1,3,5-Trimethylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,3-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
1,3-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:29
1,4-Dichlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
2,2-Dichloropropane	ND		1.00	ug/L	1	09/18/2012 16:29
2-Butanone	ND		25.0	ug/L	1	09/18/2012 16:29
2-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 16:29
2-Hexanone	ND		5.00	ug/L	1	09/18/2012 16:29
4-Chlorotoluene	ND		1.00	ug/L	1	09/18/2012 16:29
4-Isopropyltoluene	ND		1.00	ug/L	1	09/18/2012 16:29
4-Methyl-2-pentanone	ND		5.00	ug/L	1	09/18/2012 16:29
Acetone	ND		25.0	ug/L	1	09/18/2012 16:29
Benzene	ND		1.00	ug/L	1	09/18/2012 16:29
Bromobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
Bromochloromethane	ND		1.00	ug/L	1	09/18/2012 16:29
Bromodichloromethane	ND		1.00	ug/L	1	09/18/2012 16:29
Bromoform	ND		1.00	ug/L	1	09/18/2012 16:29
Bromomethane	ND		1.00	ug/L	1	09/18/2012 16:29
n-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
Carbon disulfide	ND		1.00	ug/L	1	09/18/2012 16:29
Carbon tetrachloride	ND		1.00	ug/L	1	09/18/2012 16:29
Chlorobenzene	ND		1.00	ug/L	1	09/18/2012 16:29
Chloroethane	ND		1.00	ug/L	1	09/18/2012 16:29
Chloroform	ND		1.00	ug/L	1	09/18/2012 16:29
Chloromethane	ND		1.00	ug/L	1	09/18/2012 16:29
Dibromochloromethane	ND		1.00	ug/L	1	09/18/2012 16:29
Dibromomethane	ND		1.00	ug/L	1	09/18/2012 16:29

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-A
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		5.00	ug/L	1	09/18/2012 16:29
cis-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:29
trans-1,3-Dichloropropene	ND		1.00	ug/L	1	09/18/2012 16:29
Diisopropyl Ether	ND		1.00	ug/L	1	09/18/2012 16:29
Ethyl Benzene	ND		1.00	ug/L	1	09/18/2012 16:29
Hexachlorobutadiene	ND		1.00	ug/L	1	09/18/2012 16:29
Isopropylbenzene (Cumene)	ND		1.00	ug/L	1	09/18/2012 16:29
Methyl iodide	ND		1.00	ug/L	1	09/18/2012 16:29
Methylene chloride	ND		5.00	ug/L	1	09/18/2012 16:29
Naphthalene	ND		1.00	ug/L	1	09/18/2012 16:29
Styrene	ND		1.00	ug/L	1	09/18/2012 16:29
Tetrachloroethene	ND		1.00	ug/L	1	09/18/2012 16:29
Toluene	ND		1.00	ug/L	1	09/18/2012 16:29
Trichloroethene	ND		1.00	ug/L	1	09/18/2012 16:29
Trichlorofluoromethane	ND		1.00	ug/L	1	09/18/2012 16:29
Vinyl chloride	ND		1.00	ug/L	1	09/18/2012 16:29
Xylene (total)	ND		2.00	ug/L	1	09/18/2012 16:29
cis-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:29
m,p-Xylene	ND		2.00	ug/L	1	09/18/2012 16:29
n-Propylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
o-Xylene	ND		1.00	ug/L	1	09/18/2012 16:29
sec-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
tert-Butyl methyl ether (MTBE)	ND		1.00	ug/L	1	09/18/2012 16:29
tert-Butylbenzene	ND		1.00	ug/L	1	09/18/2012 16:29
trans-1,2-Dichloroethene	ND		1.00	ug/L	1	09/18/2012 16:29
trans-1,4-Dichloro-2-butene	ND		5.00	ug/L	1	09/18/2012 16:29
Surrogates						
1,2-Dichloroethane-d4	100		64.0-140	%	1	09/18/2012 16:29
4-Bromofluorobenzene	101		85.0-115	%	1	09/18/2012 16:29
Toluene d8	104		82.0-117	%	1	09/18/2012 16:29

Batch Information

Analytical Batch: **VMS2558**
Analytical Method: **SW-846 8260B**
Instrument: **MSD4**
Analyst: **BWS**

Prep Batch: **VXX4013**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 08:30**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-D
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		100	ug/L	1	09/18/2012 14:22
C9-C10 Aromatics	ND		100	ug/L	1	09/18/2012 14:22
C9-C12 Aliphatics	ND		100	ug/L	1	09/18/2012 14:22
Surrogates						
FID - 4-Bromofluorobenzene	94.0		70.0-130	%	1	09/18/2012 14:22
PID - 4-Bromofluorobenzene	79.0		70.0-130	%	1	09/18/2012 14:22

Batch Information

Analytical Batch: **VGC2143**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4014**
Prep Method: **SW-846 5030B**
Prep Date/Time: **09/18/2012 15:33**
Prep Initial Wt./Vol.: **40 mL**
Prep Extract Vol: **40 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
1,2-Dichlorobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
1,3-Dichlorobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
1,4-Dichlorobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
2,4,5-Trichlorophenol	ND		5.15	ug/L	1	09/20/2012 15:06
2,4,6-Trichlorophenol	ND		5.15	ug/L	1	09/20/2012 15:06
2,4-Dichlorophenol	ND		5.15	ug/L	1	09/20/2012 15:06
2,4-Dinitrophenol	ND		25.7	ug/L	1	09/20/2012 15:06
2,4-Dinitrotoluene	ND		5.15	ug/L	1	09/20/2012 15:06
2,6-Dinitrotoluene	ND		5.15	ug/L	1	09/20/2012 15:06
2-Chloronaphthalene	ND		5.15	ug/L	1	09/20/2012 15:06
2-Chlorophenol	ND		5.15	ug/L	1	09/20/2012 15:06
2-Methylnaphthalene	ND		5.15	ug/L	1	09/20/2012 15:06
2-Methylphenol	ND		5.15	ug/L	1	09/20/2012 15:06
2-Nitroaniline	ND		5.15	ug/L	1	09/20/2012 15:06
2-Nitrophenol	ND		5.15	ug/L	1	09/20/2012 15:06
3 and/or 4-Methylphenol	ND		5.15	ug/L	1	09/20/2012 15:06
3,3'-Dichlorobenzidine	ND		10.3	ug/L	1	09/20/2012 15:06
3-Nitroaniline	ND		25.7	ug/L	1	09/20/2012 15:06
4,6-Dinitro-2-methylphenol	ND		25.7	ug/L	1	09/20/2012 15:06
4-Chloro-3-methylphenol	ND		5.15	ug/L	1	09/20/2012 15:06
4-Chloroaniline	ND		25.7	ug/L	1	09/20/2012 15:06
4-Chlorophenyl phenyl ether	ND		5.15	ug/L	1	09/20/2012 15:06
Acenaphthene	ND		5.15	ug/L	1	09/20/2012 15:06
Acenaphthylene	ND		5.15	ug/L	1	09/20/2012 15:06
Anthracene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzo(a)anthracene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzo(a)pyrene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzo(b)fluoranthene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzo(g,h,i)perylene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzo(k)fluoranthene	ND		5.15	ug/L	1	09/20/2012 15:06
Benzoic acid	ND		5.15	ug/L	1	09/20/2012 15:06
Bis(2-Chloroethoxy)methane	ND		5.15	ug/L	1	09/20/2012 15:06
Bis(2-Chloroethyl)ether	ND		5.15	ug/L	1	09/20/2012 15:06
Bis(2-Chloroisopropyl)ether	ND		5.15	ug/L	1	09/20/2012 15:06
Bis(2-Ethylhexyl)phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
4-Bromophenyl phenyl ether	ND		5.15	ug/L	1	09/20/2012 15:06
Butyl benzyl phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
Chrysene	ND		5.15	ug/L	1	09/20/2012 15:06
Di-n-butyl phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
Di-n-octyl phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
Dibenz(a,h)anthracene	ND		5.15	ug/L	1	09/20/2012 15:06
Dibenzofuran	ND		5.15	ug/L	1	09/20/2012 15:06

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-F
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
Dimethyl phthalate	ND		5.15	ug/L	1	09/20/2012 15:06
2,4-Dimethylphenol	ND		5.15	ug/L	1	09/20/2012 15:06
Diphenylamine	ND		5.15	ug/L	1	09/20/2012 15:06
Fluoranthene	ND		5.15	ug/L	1	09/20/2012 15:06
Fluorene	ND		5.15	ug/L	1	09/20/2012 15:06
Hexachlorobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
Hexachlorobutadiene	ND		5.15	ug/L	1	09/20/2012 15:06
Hexachlorocyclopentadiene	ND		10.3	ug/L	1	09/20/2012 15:06
Hexachloroethane	ND		5.15	ug/L	1	09/20/2012 15:06
Indeno(1,2,3-cd)pyrene	ND		5.15	ug/L	1	09/20/2012 15:06
Isophorone	ND		5.15	ug/L	1	09/20/2012 15:06
Naphthalene	ND		5.15	ug/L	1	09/20/2012 15:06
4-Nitroaniline	ND		25.7	ug/L	1	09/20/2012 15:06
Nitrobenzene	ND		5.15	ug/L	1	09/20/2012 15:06
4-Nitrophenol	ND		25.7	ug/L	1	09/20/2012 15:06
Pentachlorophenol	ND		25.7	ug/L	1	09/20/2012 15:06
Phenanthrene	ND		5.15	ug/L	1	09/20/2012 15:06
Phenol	ND		5.15	ug/L	1	09/20/2012 15:06
Pyrene	ND		5.15	ug/L	1	09/20/2012 15:06
n-Nitrosodi-n-propylamine	ND		5.15	ug/L	1	09/20/2012 15:06
Surrogates						
2,4,6-Tribromophenol	108		29.3-152	%	1	09/20/2012 15:06
2-Fluorobiphenyl	97.0		50.0-107	%	1	09/20/2012 15:06
2-Fluorophenol	84.0		33.1-118	%	1	09/20/2012 15:06
Nitrobenzene-d5	95.0		46.0-118	%	1	09/20/2012 15:06
Phenol-d6	98.0		49.0-120	%	1	09/20/2012 15:06
Terphenyl-d14	105		22.1-142	%	1	09/20/2012 15:06

Batch Information

Analytical Batch: **XMS1670**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3066**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:37**
Prep Initial Wt./Vol.: **971 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

Results of **TW-4**

Client Sample ID: **TW-4**
Client Project ID: **70127335 U-3315 #6**
Lab Sample ID: 31202941010-H
Lab Project ID: 31202941

Collection Date: 09/12/2012 13:04
Received Date: 09/17/2012 08:40
Matrix: Water

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		0.0899	mg/L	1	09/21/2012 3:14
C19-C36 Aliphatics	ND		0.0423	mg/L	1	09/21/2012 2:46
C9-C18 Aliphatics	ND		0.0317	mg/L	1	09/21/2012 2:46
Surrogates						
2-Bromonaphthalene	54.4		40.0-140	%	1	09/21/2012 3:14
2-Fluorobiphenyl	60.0		40.0-140	%	1	09/21/2012 3:14
n-Tricosane	134		40.0-140	%	1	09/21/2012 2:46
o-Terphenyl	61.0		40.0-140	%	1	09/21/2012 3:14

Batch Information

Analytical Batch: **XGC2549**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3064**
Prep Method: **SW-846 3520C**
Prep Date/Time: **09/18/2012 16:33**
Prep Initial Wt./Vol.: **946 mL**
Prep Extract Vol: **5 mL**

Print Date: 09/21/2012

N.C. Certification # 481

CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

3120294l

CLIENT: Terracon		SGS Reference #:	
CONTACT: Lori Hoffman	**PHONE NO:** (919) 873-2211		
PROJECT: ~~03~~ 20127335	**SITE / PWSID / WBS #:** U-3315 #6		
REPORTS TO: Lori Hoffman			
EMAIL: lchoffman@terracon.com			
INVOICE TO: NC007	**QUOTE #** / **P.O. NUMBER**		

PAGE 1 OF 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	PRESERVATIVES USED	METH	N/A	Na2SO3 METH	N/A	N/A	METH				REMARKS
							ANALYSIS REQUIRED	GRO	DRO	HOLD (8260)	HOLD (8270)	HOLD (5PH)	HOLD (VPH)				
	S-12	9-12-12	0826	SOIL	3	G		X	X								
	S-13		0835		2												
	S-14		0912		11					X	X	X	X				
	S-15		0952														
	S-16		1048														
	S-17		1137														
	S-18		1203		↓	↓		↓	↓	↓	↓	↓	↓				

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	
Ben Swift/Terracon	9-13-12	0917		9-13-12 1515
Relinquished By: (2)	Date	Time	Received By:	
	9/14/12	1530		
Relinquished By: (3)	Date	Time	Received By:	
	9/17/12	0840		
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN ABSENT	
			Sample Receipt Temp: C 0.2°C	

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

REQUESTED TURNAROUND TIME: ☐ Rush:_____ ☒ Standard

SPECIAL DELIVERABLES: State of Origin:_____ ☐ Trust Fund ☐ DoD ☐ EDD:_____ Other:_____

SPECIAL INSTRUCTIONS:

Shipping Carrier:

Shipping Ticket No:

Notes:

SGS-00055 (06/12)

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

White - Retained by Lab
Yellow - Retained by Client

CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

CLIENT: TERRACON
CONTACT: LORI HOFFMAN **PHONE NO:** (919) 873-2211
PROJECT: 70127335 **SITE / PWSID / WBS #:** U-3315 #6
REPORTS TO: LORI HOFFMAN
EMAIL: lchoffman@terracon.com
INVOICE TO: NC007 **QUOTE #** **P.O. NUMBER**

SGS Reference #: 31202941

PAGE 2 OF 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C=COMP G=GRAB)	PRESERVATIVES USED	ANALYSIS REQUIRED: 8260 (VOCs) HCl	8270 (SVOCs) N/A	EPH HCl	VPH HCl	REMARKS
	TW-1	9-12-12	1245	GW	7*	G		X	X	X	X	*WAS ONLY ABLE TO COLLECT 1 LITER EACH FOR 8270 & EPH FOR TW-1 DUE TO SLOW RECHARGE
	TW-3	"	1233	"	9	"		"	"	"	"	
	TW-4	"	1304	"	9	"		"	"	"	"	

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	
BEN SCHLEY/TERRACON	9-13-12	0917		9-13-12 15:15
Relinquished By: (2)	Date	Time	Received By:	
	9/14/12	1530		
Relinquished By: (3)	Date	Time	Received By:	
	9/17/12	0840		
Received For Laboratory By:	Date	Time	COC Seal: INTACT BROKEN ABSENT	
			Sample Receipt Temp: C 0.2°C	

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV
REQUESTED TURNAROUND TIME: ☐ Rush: _____ ☒ Standard
SPECIAL DELIVERABLES: State of Origin: _____ ☐ Trust Fund
☐ DoD ☐ EDD: _____ Other: _____
SPECIAL INSTRUCTIONS:
Shipping Carrier:
Shipping Ticket No:
Notes:

SGS-00055 (06/12)

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

White - Retained by Lab
Yellow - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **NCDOT-Terracon** Work Order No.: **31202941**

1. ___ Shipped
   X Hand Delivered

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.2, 0.2
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   X HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Mon-9/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6

Laboratory Report of Analysis

To: Steve Kerlin
Terracon
5240 Greens Dairy Rd
Raleigh, NC 27616

Report Number: **31203051**

Client Project: **20127335 U-2215 #6**

Dear Steve Kerlin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael D. Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Michael D. Page Date
Project Manager
michael.page@sgs.com

Print Date: 10/03/2012 N.C. Certification # 481

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Estimated Concentration.
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
S-15	31203051001	09/12/2012 09:52	09/17/2012 08:40	Soil-Solid as dry weight
S-17	31203051002	09/12/2012 11:37	09/17/2012 08:40	Soil-Solid as dry weight

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-A
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1,1-Trichloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1,2,2-Tetrachloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1,2-Trichloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1-Dichloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1-Dichloroethene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,1-Dichloropropene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2,3-Trichlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2,3-Trichloropropane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2,4-Trichlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2,4-Trimethylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2-Dibromo-3-chloropropane	ND		26.3	ug/Kg	1	09/25/2012 13:00
1,2-Dibromoethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2-Dichlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2-Dichloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,2-Dichloropropane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,3,5-Trimethylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,3-Dichlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,3-Dichloropropane	ND		4.38	ug/Kg	1	09/25/2012 13:00
1,4-Dichlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
2,2-Dichloropropane	ND		4.38	ug/Kg	1	09/25/2012 13:00
2-Butanone	ND		21.9	ug/Kg	1	09/25/2012 13:00
2-Chlorotoluene	ND		4.38	ug/Kg	1	09/25/2012 13:00
2-Hexanone	ND		11.0	ug/Kg	1	09/25/2012 13:00
4-Chlorotoluene	ND		4.38	ug/Kg	1	09/25/2012 13:00
4-Isopropyltoluene	ND		4.38	ug/Kg	1	09/25/2012 13:00
4-Methyl-2-pentanone	ND		11.0	ug/Kg	1	09/25/2012 13:00
Acetone	ND		43.8	ug/Kg	1	09/25/2012 13:00
Benzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Bromobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Bromochloromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Bromodichloromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Bromoform	ND		4.38	ug/Kg	1	09/25/2012 13:00
Bromomethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
n-Butylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Carbon disulfide	ND		4.38	ug/Kg	1	09/25/2012 13:00
Carbon tetrachloride	ND		4.38	ug/Kg	1	09/25/2012 13:00
Chlorobenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Chloroethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Chloroform	ND		4.38	ug/Kg	1	09/25/2012 13:00
Chloromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Dibromochloromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Dibromomethane	ND		4.38	ug/Kg	1	09/25/2012 13:00

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-A
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
cis-1,3-Dichloropropene	ND		4.38	ug/Kg	1	09/25/2012 13:00
trans-1,3-Dichloropropene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Diisopropyl Ether	ND		4.38	ug/Kg	1	09/25/2012 13:00
Ethyl Benzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Hexachlorobutadiene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Isopropylbenzene (Cumene)	ND		4.38	ug/Kg	1	09/25/2012 13:00
Methyl iodide	ND		4.38	ug/Kg	1	09/25/2012 13:00
Methylene chloride	ND		17.5	ug/Kg	1	09/25/2012 13:00
Naphthalene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Styrene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Tetrachloroethene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Toluene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Trichloroethene	ND		4.38	ug/Kg	1	09/25/2012 13:00
Trichlorofluoromethane	ND		4.38	ug/Kg	1	09/25/2012 13:00
Vinyl chloride	ND		4.38	ug/Kg	1	09/25/2012 13:00
Xylene (total)	ND		8.76	ug/Kg	1	09/25/2012 13:00
cis-1,2-Dichloroethene	ND		4.38	ug/Kg	1	09/25/2012 13:00
m,p-Xylene	ND		8.76	ug/Kg	1	09/25/2012 13:00
n-Propylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
o-Xylene	ND		4.38	ug/Kg	1	09/25/2012 13:00
sec-Butylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
tert-Butyl methyl ether (MTBE)	ND		4.38	ug/Kg	1	09/25/2012 13:00
tert-Butylbenzene	ND		4.38	ug/Kg	1	09/25/2012 13:00
trans-1,2-Dichloroethene	ND		4.38	ug/Kg	1	09/25/2012 13:00
trans-1,4-Dichloro-2-butene	ND		21.9	ug/Kg	1	09/25/2012 13:00
Surrogates						
1,2-Dichloroethane-d4	99.0		55.0-173	%	1	09/25/2012 13:00
4-Bromofluorobenzene	98.0		23.0-141	%	1	09/25/2012 13:00
Toluene d8	102		57.0-134	%	1	09/25/2012 13:00

Batch Information

Analytical Batch: **VMS2574**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**

Prep Batch: **VXX4046**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/25/2012 10:44**
Prep Initial Wt./Vol.: **6.77 g**
Prep Extract Vol: **5 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-E
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		3.95	mg/kg	1	09/26/2012 12:20
C9-C10 Aromatics	ND		3.95	mg/kg	1	09/26/2012 12:20
C9-C12 Aliphatics	ND		3.95	mg/kg	1	09/26/2012 12:20
Surrogates						
FID - 4-Bromofluorobenzene	93.0		70.0-130	%	1	09/26/2012 12:20
PID - 4-Bromofluorobenzene	80.0		70.0-130	%	1	09/26/2012 12:20

Batch Information

Analytical Batch: **VGC2156**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4052**
Prep Method: **SW-846 5035 VPH prep**
Prep Date/Time: **09/25/2012 10:44**
Prep Initial Wt./Vol.: **7.51 g**
Prep Extract Vol: **5 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		360	ug/Kg	1	10/1/2012 14:45
1,2-Dichlorobenzene	ND		360	ug/Kg	1	10/1/2012 14:45
1,3-Dichlorobenzene	ND		360	ug/Kg	1	10/1/2012 14:45
1,4-Dichlorobenzene	ND		360	ug/Kg	1	10/1/2012 14:45
2,4,5-Trichlorophenol	ND		360	ug/Kg	1	10/1/2012 14:45
2,4,6-Trichlorophenol	ND		360	ug/Kg	1	10/1/2012 14:45
2,4-Dichlorophenol	ND		360	ug/Kg	1	10/1/2012 14:45
2,4-Dinitrophenol	ND		1800	ug/Kg	1	10/1/2012 14:45
2,4-Dinitrotoluene	ND		360	ug/Kg	1	10/1/2012 14:45
2,6-Dinitrotoluene	ND		360	ug/Kg	1	10/1/2012 14:45
2-Chloronaphthalene	ND		360	ug/Kg	1	10/1/2012 14:45
2-Chlorophenol	ND		360	ug/Kg	1	10/1/2012 14:45
2-Methylnaphthalene	ND		360	ug/Kg	1	10/1/2012 14:45
2-Methylphenol	ND		360	ug/Kg	1	10/1/2012 14:45
2-Nitroaniline	ND		360	ug/Kg	1	10/1/2012 14:45
2-Nitrophenol	ND		360	ug/Kg	1	10/1/2012 14:45
3 and/or 4-Methylphenol	ND		360	ug/Kg	1	10/1/2012 14:45
3,3'-Dichlorobenzidine	ND		721	ug/Kg	1	10/1/2012 14:45
3-Nitroaniline	ND		1800	ug/Kg	1	10/1/2012 14:45
4,6-Dinitro-2-methylphenol	ND		1800	ug/Kg	1	10/1/2012 14:45
4-Chloro-3-methylphenol	ND		360	ug/Kg	1	10/1/2012 14:45
4-Chloroaniline	ND		360	ug/Kg	1	10/1/2012 14:45
4-Chlorophenyl phenyl ether	ND		360	ug/Kg	1	10/1/2012 14:45
Acenaphthene	ND		360	ug/Kg	1	10/1/2012 14:45
Acenaphthylene	ND		360	ug/Kg	1	10/1/2012 14:45
Anthracene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzo(a)anthracene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzo(a)pyrene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzo(b)fluoranthene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzo(g,h,i)perylene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzo(k)fluoranthene	ND		360	ug/Kg	1	10/1/2012 14:45
Benzoic acid	ND		1800	ug/Kg	1	10/1/2012 14:45
Bis(2-Chloroethoxy)methane	ND		360	ug/Kg	1	10/1/2012 14:45
Bis(2-Chloroethyl)ether	ND		360	ug/Kg	1	10/1/2012 14:45
Bis(2-Chloroisopropyl)ether	ND		360	ug/Kg	1	10/1/2012 14:45
Bis(2-Ethylhexyl)phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
4-Bromophenyl phenyl ether	ND		360	ug/Kg	1	10/1/2012 14:45
Butyl benzyl phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
Chrysene	ND		360	ug/Kg	1	10/1/2012 14:45
Di-n-butyl phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
Di-n-octyl phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
Dibenz(a,h)anthracene	ND		360	ug/Kg	1	10/1/2012 14:45
Dibenzofuran	ND		360	ug/Kg	1	10/1/2012 14:45

Print Date: 10/03/2012

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Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
Dimethyl phthalate	ND		360	ug/Kg	1	10/1/2012 14:45
2,4-Dimethylphenol	ND		360	ug/Kg	1	10/1/2012 14:45
Diphenylamine	ND		360	ug/Kg	1	10/1/2012 14:45
Fluoranthene	ND		360	ug/Kg	1	10/1/2012 14:45
Fluorene	ND		360	ug/Kg	1	10/1/2012 14:45
Hexachlorobenzene	ND		1800	ug/Kg	1	10/1/2012 14:45
Hexachlorobutadiene	ND		360	ug/Kg	1	10/1/2012 14:45
Hexachlorocyclopentadiene	ND		721	ug/Kg	1	10/1/2012 14:45
Hexachloroethane	ND		360	ug/Kg	1	10/1/2012 14:45
Indeno(1,2,3-cd)pyrene	ND		360	ug/Kg	1	10/1/2012 14:45
Isophorone	ND		360	ug/Kg	1	10/1/2012 14:45
Naphthalene	ND		360	ug/Kg	1	10/1/2012 14:45
4-Nitroaniline	ND		1800	ug/Kg	1	10/1/2012 14:45
Nitrobenzene	ND		360	ug/Kg	1	10/1/2012 14:45
4-Nitrophenol	ND		1800	ug/Kg	1	10/1/2012 14:45
Pentachlorophenol	ND		1800	ug/Kg	1	10/1/2012 14:45
Phenanthrene	ND		360	ug/Kg	1	10/1/2012 14:45
Phenol	ND		360	ug/Kg	1	10/1/2012 14:45
Pyrene	ND		360	ug/Kg	1	10/1/2012 14:45
n-Nitrosodi-n-propylamine	ND		360	ug/Kg	1	10/1/2012 14:45
Surrogates						
2,4,6-Tribromophenol	85.0		41.0-129	%	1	10/1/2012 14:45
2-Fluorobiphenyl	94.0		48.0-123	%	1	10/1/2012 14:45
2-Fluorophenol	90.0		42.0-123	%	1	10/1/2012 14:45
Nitrobenzene-d5	88.0		46.0-117	%	1	10/1/2012 14:45
Phenol-d6	96.0		48.0-125	%	1	10/1/2012 14:45
Terphenyl-d14	98.0		44.0-140	%	1	10/1/2012 14:45

Batch Information

Analytical Batch: **XMS1684**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3104**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/25/2012 16:55**
Prep Initial Wt./Vol.: **32.97 g**
Prep Extract Vol: **10 mL**

Print Date: 10/03/2012

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Results of **S-15**

Client Sample ID: **S-15**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051001-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 09:52
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 84.30

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		14.8	mg/kg	1	10/2/2012 7:21
C19-C36 Aliphatics	ND		7.62	mg/kg	1	10/2/2012 6:53
C9-C18 Aliphatics	ND		6.60	mg/kg	1	10/2/2012 6:53
Surrogates						
2-Bromonaphthalene	93.2		40.0-140	%	1	10/2/2012 7:21
2-Fluorobiphenyl	86.0		40.0-140	%	1	10/2/2012 7:21
n-Tricosane	80.0		40.0-140	%	1	10/2/2012 6:53
o-Terphenyl	93.0		40.0-140	%	1	10/2/2012 7:21

Batch Information

Analytical Batch: **XGC2573**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3110**
Prep Method: **SW-846 3541/8015 EPH**
Prep Date/Time: **09/26/2012 17:55**
Prep Initial Wt./Vol.: **12.51 g**
Prep Extract Vol: **10 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-A
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1,1-Trichloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1,2,2-Tetrachloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1,2-Trichloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1-Dichloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1-Dichloroethene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,1-Dichloropropene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2,3-Trichlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2,3-Trichloropropane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2,4-Trichlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2,4-Trimethylbenzene	**19.2**		4.41	ug/Kg	1	09/25/2012 13:27
1,2-Dibromo-3-chloropropane	ND		26.5	ug/Kg	1	09/25/2012 13:27
1,2-Dibromoethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2-Dichlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2-Dichloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,2-Dichloropropane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,3,5-Trimethylbenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,3-Dichlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,3-Dichloropropane	ND		4.41	ug/Kg	1	09/25/2012 13:27
1,4-Dichlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
2,2-Dichloropropane	ND		4.41	ug/Kg	1	09/25/2012 13:27
2-Butanone	ND		22.1	ug/Kg	1	09/25/2012 13:27
2-Chlorotoluene	ND		4.41	ug/Kg	1	09/25/2012 13:27
2-Hexanone	ND		11.0	ug/Kg	1	09/25/2012 13:27
4-Chlorotoluene	ND		4.41	ug/Kg	1	09/25/2012 13:27
4-Isopropyltoluene	ND		4.41	ug/Kg	1	09/25/2012 13:27
4-Methyl-2-pentanone	ND		11.0	ug/Kg	1	09/25/2012 13:27
Acetone	ND		44.1	ug/Kg	1	09/25/2012 13:27
Benzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Bromobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Bromochloromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Bromodichloromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Bromoform	ND		4.41	ug/Kg	1	09/25/2012 13:27
Bromomethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
n-Butylbenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Carbon disulfide	ND		4.41	ug/Kg	1	09/25/2012 13:27
Carbon tetrachloride	ND		4.41	ug/Kg	1	09/25/2012 13:27
Chlorobenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Chloroethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Chloroform	ND		4.41	ug/Kg	1	09/25/2012 13:27
Chloromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Dibromochloromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Dibromomethane	ND		4.41	ug/Kg	1	09/25/2012 13:27

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-A
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **SW-846 8260B**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
cis-1,3-Dichloropropene	ND		4.41	ug/Kg	1	09/25/2012 13:27
trans-1,3-Dichloropropene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Diisopropyl Ether	ND		4.41	ug/Kg	1	09/25/2012 13:27
Ethyl Benzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Hexachlorobutadiene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Isopropylbenzene (Cumene)	ND		4.41	ug/Kg	1	09/25/2012 13:27
Methyl iodide	ND		4.41	ug/Kg	1	09/25/2012 13:27
Methylene chloride	ND		17.7	ug/Kg	1	09/25/2012 13:27
Naphthalene	**10.8**		4.41	ug/Kg	1	09/25/2012 13:27
Styrene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Tetrachloroethene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Toluene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Trichloroethene	ND		4.41	ug/Kg	1	09/25/2012 13:27
Trichlorofluoromethane	ND		4.41	ug/Kg	1	09/25/2012 13:27
Vinyl chloride	ND		4.41	ug/Kg	1	09/25/2012 13:27
Xylene (total)	ND		8.83	ug/Kg	1	09/25/2012 13:27
cis-1,2-Dichloroethene	ND		4.41	ug/Kg	1	09/25/2012 13:27
m,p-Xylene	ND		8.83	ug/Kg	1	09/25/2012 13:27
n-Propylbenzene	**8.96**		4.41	ug/Kg	1	09/25/2012 13:27
o-Xylene	ND		4.41	ug/Kg	1	09/25/2012 13:27
sec-Butylbenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
tert-Butyl methyl ether (MTBE)	ND		4.41	ug/Kg	1	09/25/2012 13:27
tert-Butylbenzene	ND		4.41	ug/Kg	1	09/25/2012 13:27
trans-1,2-Dichloroethene	ND		4.41	ug/Kg	1	09/25/2012 13:27
trans-1,4-Dichloro-2-butene	ND		22.1	ug/Kg	1	09/25/2012 13:27
Surrogates						
1,2-Dichloroethane-d4	112		55.0-173	%	1	09/25/2012 13:27
4-Bromofluorobenzene	95.0		23.0-141	%	1	09/25/2012 13:27
Toluene d8	102		57.0-134	%	1	09/25/2012 13:27

Batch Information

Analytical Batch: **VMS2574**
Analytical Method: **SW-846 8260B**
Instrument: **MSD9**
Analyst: **DVO**

Prep Batch: **VXX4046**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/25/2012 10:45**
Prep Initial Wt./Vol.: **6.63 g**
Prep Extract Vol: **5 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-E
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **MADEP VPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		4.70	mg/kg	1	09/26/2012 12:46
C9-C10 Aromatics	ND		4.70	mg/kg	1	09/26/2012 12:46
C9-C12 Aliphatics	ND		4.70	mg/kg	1	09/26/2012 12:46
Surrogates						
FID - 4-Bromofluorobenzene	89.0		70.0-130	%	1	09/26/2012 12:46
PID - 4-Bromofluorobenzene	74.0		70.0-130	%	1	09/26/2012 12:46

Batch Information

Analytical Batch: **VGC2156**
Analytical Method: **MADEP VPH**
Instrument: **GC4**
Analyst: **MDY**

Prep Batch: **VXX4052**
Prep Method: **SW-846 5035 VPH prep**
Prep Date/Time: **09/25/2012 10:45**
Prep Initial Wt./Vol.: **6.23 g**
Prep Extract Vol: **5 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		371	ug/Kg	1	09/26/2012 15:41
1,2-Dichlorobenzene	ND		371	ug/Kg	1	09/26/2012 15:41
1,3-Dichlorobenzene	ND		371	ug/Kg	1	09/26/2012 15:41
1,4-Dichlorobenzene	ND		371	ug/Kg	1	09/26/2012 15:41
2,4,5-Trichlorophenol	ND		371	ug/Kg	1	09/26/2012 15:41
2,4,6-Trichlorophenol	ND		371	ug/Kg	1	09/26/2012 15:41
2,4-Dichlorophenol	ND		371	ug/Kg	1	09/26/2012 15:41
2,4-Dinitrophenol	ND		1860	ug/Kg	1	09/26/2012 15:41
2,4-Dinitrotoluene	ND		371	ug/Kg	1	09/26/2012 15:41
2,6-Dinitrotoluene	ND		371	ug/Kg	1	09/26/2012 15:41
2-Chloronaphthalene	ND		371	ug/Kg	1	09/26/2012 15:41
2-Chlorophenol	ND		371	ug/Kg	1	09/26/2012 15:41
2-Methylnaphthalene	ND		371	ug/Kg	1	09/26/2012 15:41
2-Methylphenol	ND		371	ug/Kg	1	09/26/2012 15:41
2-Nitroaniline	ND		371	ug/Kg	1	09/26/2012 15:41
2-Nitrophenol	ND		371	ug/Kg	1	09/26/2012 15:41
3 and/or 4-Methylphenol	ND		371	ug/Kg	1	09/26/2012 15:41
3,3'-Dichlorobenzidine	ND		742	ug/Kg	1	09/26/2012 15:41
3-Nitroaniline	ND		1860	ug/Kg	1	09/26/2012 15:41
4,6-Dinitro-2-methylphenol	ND		1860	ug/Kg	1	09/26/2012 15:41
4-Chloro-3-methylphenol	ND		371	ug/Kg	1	09/26/2012 15:41
4-Chloroaniline	ND		371	ug/Kg	1	09/26/2012 15:41
4-Chlorophenyl phenyl ether	ND		371	ug/Kg	1	09/26/2012 15:41
Acenaphthene	ND		371	ug/Kg	1	09/26/2012 15:41
Acenaphthylene	ND		371	ug/Kg	1	09/26/2012 15:41
Anthracene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzo(a)anthracene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzo(a)pyrene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzo(b)fluoranthene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzo(g,h,i)perylene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzo(k)fluoranthene	ND		371	ug/Kg	1	09/26/2012 15:41
Benzoic acid	ND		1860	ug/Kg	1	09/26/2012 15:41
Bis(2-Chloroethoxy)methane	ND		371	ug/Kg	1	09/26/2012 15:41
Bis(2-Chloroethyl)ether	ND		371	ug/Kg	1	09/26/2012 15:41
Bis(2-Chloroisopropyl)ether	ND		371	ug/Kg	1	09/26/2012 15:41
Bis(2-Ethylhexyl)phthalate	ND		371	ug/Kg	1	09/26/2012 15:41
4-Bromophenyl phenyl ether	ND		371	ug/Kg	1	09/26/2012 15:41
Butyl benzyl phthalate	**1310**		371	ug/Kg	1	09/26/2012 15:41
Chrysene	ND		371	ug/Kg	1	09/26/2012 15:41
Di-n-butyl phthalate	ND		371	ug/Kg	1	09/26/2012 15:41
Di-n-octyl phthalate	ND		371	ug/Kg	1	09/26/2012 15:41
Dibenz(a,h)anthracene	ND		371	ug/Kg	1	09/26/2012 15:41
Dibenzofuran	ND		371	ug/Kg	1	09/26/2012 15:41

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		371	ug/Kg	1	09/26/2012 15:41
Dimethyl phthalate	ND		371	ug/Kg	1	09/26/2012 15:41
2,4-Dimethylphenol	ND		371	ug/Kg	1	09/26/2012 15:41
Diphenylamine	ND		371	ug/Kg	1	09/26/2012 15:41
Fluoranthene	ND		371	ug/Kg	1	09/26/2012 15:41
Fluorene	ND		371	ug/Kg	1	09/26/2012 15:41
Hexachlorobenzene	ND		1860	ug/Kg	1	09/26/2012 15:41
Hexachlorobutadiene	ND		371	ug/Kg	1	09/26/2012 15:41
Hexachlorocyclopentadiene	ND		742	ug/Kg	1	09/26/2012 15:41
Hexachloroethane	ND		371	ug/Kg	1	09/26/2012 15:41
Indeno(1,2,3-cd)pyrene	ND		371	ug/Kg	1	09/26/2012 15:41
Isophorone	ND		371	ug/Kg	1	09/26/2012 15:41
Naphthalene	ND		371	ug/Kg	1	09/26/2012 15:41
4-Nitroaniline	ND		1860	ug/Kg	1	09/26/2012 15:41
Nitrobenzene	ND		371	ug/Kg	1	09/26/2012 15:41
4-Nitrophenol	ND		1860	ug/Kg	1	09/26/2012 15:41
Pentachlorophenol	ND		1860	ug/Kg	1	09/26/2012 15:41
Phenanthrene	ND		371	ug/Kg	1	09/26/2012 15:41
Phenol	ND		371	ug/Kg	1	09/26/2012 15:41
Pyrene	ND		371	ug/Kg	1	09/26/2012 15:41
n-Nitrosodi-n-propylamine	ND		371	ug/Kg	1	09/26/2012 15:41
Surrogates						
2,4,6-Tribromophenol	70.0		41.0-129	%	1	09/26/2012 15:41
2-Fluorobiphenyl	88.0		48.0-123	%	1	09/26/2012 15:41
2-Fluorophenol	83.0		42.0-123	%	1	09/26/2012 15:41
Nitrobenzene-d5	85.0		46.0-117	%	1	09/26/2012 15:41
Phenol-d6	86.0		48.0-125	%	1	09/26/2012 15:41
Terphenyl-d14	90.0		44.0-140	%	1	09/26/2012 15:41

Batch Information

Analytical Batch: **XMS1677**
Analytical Method: **SW-846 8270D**
Instrument: **MSD10**
Analyst: **CMP**

Prep Batch: **XXX3104**
Prep Method: **SW-846 3541**
Prep Date/Time: **09/25/2012 16:55**
Prep Initial Wt./Vol.: **31.59 g**
Prep Extract Vol: **10 mL**

Print Date: 10/03/2012

N.C. Certification # 481

Results of **S-17**

Client Sample ID: **S-17**
Client Project ID: **20127335 U-2215 #6**
Lab Sample ID: 31203051002-F
Lab Project ID: 31203051

Collection Date: 09/12/2012 11:37
Received Date: 09/17/2012 08:40
Matrix: Soil-Solid as dry weight
Solids (%): 85.40

Results by **MADEP EPH**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	**173**		14.4	mg/kg	1	10/2/2012 8:17
C19-C36 Aliphatics	**677**		7.41	mg/kg	1	10/2/2012 7:49
C9-C18 Aliphatics	**9.15**		6.41	mg/kg	1	10/2/2012 7:49
Surrogates						
2-Bromonaphthalene	95.3		40.0-140	%	1	10/2/2012 8:17
2-Fluorobiphenyl	87.0		40.0-140	%	1	10/2/2012 8:17
n-Tricosane	109		40.0-140	%	1	10/2/2012 7:49
o-Terphenyl	95.0		40.0-140	%	1	10/2/2012 8:17

Batch Information

Analytical Batch: **XGC2573**
Analytical Method: **MADEP EPH**
Instrument: **GC6**
Analyst: **DTF**

Prep Batch: **XXX3110**
Prep Method: **SW-846 3541/8015 EPH**
Prep Date/Time: **09/26/2012 17:55**
Prep Initial Wt./Vol.: **12.7 g**
Prep Extract Vol: **10 mL**

Print Date: 10/03/2012

N.C. Certification # 481

SGS ANALYTICAL PERSPECTIVES — CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

3120294 9/24/12

CLIENT: TERRACON
CONTACT: LORI HOFFMAN PHONE NO: (919) 873-2211
PROJECT: ~~03~~ 20127335 SITE / PWSID / WBS #: V-3315 #6
REPORTS TO: LORI HOFFMAN
EMAIL: lchoffman@terracon.com
INVOICE TO: NC007 QUOTE # P.O. NUMBER

SGS Reference #: 3120305

PAGE 1 OF 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	PRESERVATIVES USED	METH	N/A	Na2SO3 METH	N/A	N/A	METH				REMARKS
							ANALYSIS REQUIRED	GRO	DRO	HOLD (8260)	HOLD (8270)	HOLD (SIM)	HOLD (VPH)				
	S-12	9-12-12	0826	SOIL	3	G		X	X								
	S-13		0835		2												
	S-14		0912		11					X	X	X	X				
3120294-004	S-15		0952							X	X	X	X				
	S-16		1048														
3120294-006	S-17		1137							X	X	X	X				
	S-18		1203														

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:	
BEN SWIFT/TERRACON	9-13-12	0917		9-13-12 1515
Relinquished By: (2)	Date	Time	Received By:	
	9/14/12	1530		
Relinquished By: (3)	Date	Time	Received By:	
	9/17/12	0840		
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN ABSENT	
			Sample Receipt Temp: C 0.2°C	

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV
REQUESTED TURNAROUND TIME: ☐ Rush: _____ ☒ Standard
SPECIAL DELIVERABLES: State of Origin: _____ ☐ Trust Fund
☐ DoD ☐ EDD: _____ Other: _____
SPECIAL INSTRUCTIONS:
Shipping Carrier:
Shipping Ticket No:
Notes:

SGS-00055 (06/12)

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

White - Retained by Lab
Yellow - Retained by Client

CHAIN OF CUSTODY

SGS ANALYTICAL PERSPECTIVES
5500 Business Drive
Wilmington, NC 28405
+1 910 350 1903
WWW.SGS.COM

3120305l 9/24/12

SGS Reference #: ~~3120294l~~

PAGE 2 OF 2

CLIENT: TERRACON

CONTACT: LORI HOFFMAN PHONE NO: (919) 873-2211

PROJECT: 70127335 SITE / PWSID / WBS #: U-3315 #6

REPORTS TO: LORI HOFFMAN

EMAIL: lchoffman@terracon.com

INVOICE TO: NC007 QUOTE # P.O. NUMBER

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	8260 (VOCs) (Preservative: HCl)	8270 (SVOCs) (Preservative: N/A)	EPH (Preservative: HCl)	VPH (Preservative: HCl)	REMARKS
	TW-1	9-12-12	1245	GW	7*	G	X	X	X	X	*WAS ONLY ABLE TO COLLECT
	TW-3	↓	1233	↓	9	↓	↓	↓	↓	↓	1 LITER EACH FOR
	TW-4	↓	1304	↓	9	↓	↓	↓	↓	↓	8270 & EPH FOR TW-1
											DUE TO SLOW RECHARGE

COLLECTED/RELINQUISHED BY: (1)	DATE	TIME	RECEIVED BY:
BEN SWIFT/TERRACON	9-13-12	0917	[signature] 9-13-12 15:15
Relinquished By: (2) [signature]	9/14/12	1530	Received By: [signature]
Relinquished By: (3) [signature]	9/17/12	0840	Received By: Julie [signature]
Received For Laboratory By:	Date	Time	CoC Seal: INTACT BROKEN (ABSENT) Sample Receipt Temp: C 0.2°C

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

REQUESTED TURNAROUND TIME: ☐ Rush: ____ ☒ Standard

SPECIAL DELIVERABLES: State of Origin: ____ ☐ Trust Fund

☐ DoD ☐ EDD: ____ Other: ____

SPECIAL INSTRUCTIONS:

Shipping Carrier:
Shipping Ticket No:
Notes:

SGS-00055 (06/12)

ANALYTICAL PERSPECTIVES IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

White - Retained by Lab
Yellow - Retained by Client

SGS North America Inc.

31203051 (relog) JJ 9/24/12

Sample Receipt Checklist (SRC)

Client: **NCDOT-Terracon** Work Order No.: **31202941**

1. ___ Shipped
   X Hand Delivered
   Notes:

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. ___ Custody Tape on Container
   X No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.2, 0.2
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   X HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted
   ___ NCDENR notified of Discrepancies*

10. X No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Comments:

Inspected and Logged in by: JJ
Date: Mon-9/17/12 00:00

*NCDENR must be notified when collection, holding time or preservation requirements are not met. MI_11.6