

March 20, 2012

Mr. Terry Fox, LG  
North Carolina Department of Transportation  
Geotechnical Engineering Unit  
1589 Mail Service Center  
Raleigh, North Carolina 27699-1589

Reference: Preliminary Site Assessment  
Calvary Assembly of God of Spruce Pine Property  
1637 US 19E  
Spruce Pine, Mitchell County, North Carolina  
NCDOT Tip No. R-2519B  
WBS Element 35609.1.1  
AECOM Project No. 60241470

Dear Mr. Fox:

AECOM Technical Services of North Carolina, Inc., (AECOM) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated January 12, 2012, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated January 18, 2012. Activities associated with the assessment consisted of conducting a geophysical investigation, collecting soil samples for laboratory analysis, and reviewing applicable North Carolina Department of Environment and Natural Resources (NCDENR) records. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

### **Location and Description**

The Calvary Assembly of God of Spruce Pine Property is located at 1637 US 19E in Spruce Pine, Mitchell County, North Carolina. The property is situated on the north side of US 19E and about 500 feet east of Old US 19E (Figure 1). Based on information supplied by the NCDOT and the site visit, AECOM understands that the site is a former gas station/convenience store where an unknown number and size of underground storage tanks (USTs) were operated. Unverified information suggests that the USTs were removed several years in the past. The tanks reportedly were located just north of the grass island. The structure on the site consists of a single-story block/wood frame building with a gravel parking lot in front and on the sides. A playground is located on the west side of the building (Figure 2). The site is bounded on the north and west by an unnamed tributary of Brushy Creek.

While on-site during the course of the investigation, AECOM was advised by site personnel that the property was no longer owned by Calvary Assembly of God of Spruce Pine. Mitchell County's tax records are not on-line, so AECOM was unable to confirm the information. The NCDOT has advised that the proposed right-of-way/easement will not affect the building, but will affect the parking lot just outside the former UST locations (Figure 2). The presence of potential USTs immediately adjacent to the right-of-way created an area of potential environmental concern and the NCDOT requested a Preliminary Site Assessment. The scope of work as defined in the Request for Technical and Cost Proposal was to evaluate the existing right-of-way with respect to the presence of known and unknown USTs and assess where contamination may exist on the right-of-way. If present, an estimate of the quantity of impacted soil was to be provided.

AECOM reviewed the on-line NCDENR Incident Management database and no Incident Number has been assigned to the property. AECOM also examined the UST registration database to obtain UST ownership information. No registration records were available for this property.

### **Geophysical Survey**

Prior to AECOM's mobilization to the site, Pyramid Environmental conducted a geophysical survey as part of this project to evaluate if USTs were present on the right-of-way/easement. The geophysical survey consisted of an electromagnetic survey using a Geonics EM61 time-domain electromagnetic induction meter to locate buried metallic objects, specifically USTs. Pyramid laid out a survey grid at the property with the X-axis oriented approximately parallel to US 19E and the Y-axis oriented approximately perpendicular to US 19E. The grid was located to cover the accessible portions of the right-of-way. The survey lines were spaced 5 feet apart. A data logger collected magnetic data continuously along each survey line. After collection, the data was reviewed in the field with graphical computer software. Following the electromagnetic survey, a ground penetrating radar (GPR) survey was conducted where needed to further evaluate any significant metallic anomalies.

Access was available to all areas of the proposed right-of-way and the geophysical survey detected several anomalies. Data interpretation attributed all of these anomalies to buried utility lines, conduits, or miscellaneous metallic debris. No metal USTs were detected within the proposed right-of-way. Attachment A presents a detailed report of findings and interpretations.

### **Site Assessment Activities**

On February 21, 2012, AECOM mobilized to the site to conduct a Geoprobe<sup>®</sup> direct push investigation to evaluate soil conditions within the proposed right-of-way. Continuous sampling using direct push technology (Regional Probing of Wake Forest, North Carolina) resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in acetate sleeves inside the direct push sampler. Each of these sleeves was

divided into 2-foot long sections for soil sample screening. Each 2-foot interval was placed in a resealable plastic bag and the bag was set aside for a sufficient amount of time to allow volatilization of organic compounds from the soil to the bag headspace. The probe of a flame ionization detector/photo ionization detector (FID/PID) was inserted into the bag and the reading was recorded. After terminating the sample hole, the soil sample from the depth interval with the highest FID/PID reading was submitted for analysis to Pace Analytical in Asheville, North Carolina, using standard chain-of-custody procedures. The laboratory analyzed the soil samples for total petroleum hydrocarbons (TPH) in the diesel range organics (DRO) and gasoline range organics (GRO).

Six direct-push holes (CA-1 through CA-6) were advanced within the proposed right-of-way to depths of 8 to 12 feet as shown in Figure 2 and Attachment B. Borings CA-1 through CA-3 were located to evaluate the conditions adjacent to the former USTs; borings CA-4 and CA-5 were placed to assess the soil conditions within the cut section; and boring CA-6 was situated to observe soil conditions at a proposed drop inlet (Attachment C). The lithology encountered by the direct-push samples generally was consistent throughout the site. In the area containing borings CA-1 and CA-2, the soils appear to be possible fill material. For the remainder of the site, about 2 inches of topsoil or gravel covered the ground surface. Below the surface to a depth of about 2 to 6 feet was a medium brown, micaceous, silt/sand. Underlying this soil was an olive gray, organic, silty medium-grained sand with occasional woody debris. Below the silt/sand was a wet, coarse-grained sand. None of the borings encountered bedrock.

The “Geologic Map of North Carolina” dated 1985 indicates that the Alligator Formation underlies the site. This formation consists of amphibolites and gneiss. The amphibolites is described as equigranular, massive to well foliated, metamorphosed intrusive and extrusive mafic rock. The gneiss is a finely laminated to thinly layered and locally contains massive gneiss and micaceous granule conglomerate. In addition to these rock types, quartz diorite intrusions are common in the area. The soil observed at the site is consistent with these parent rocks. The borings were terminated at depths of 8 to 12 feet. Groundwater was observed in all of the borings, generally between depths of about 7.5 to 12 feet. Based on field screening, soil samples were submitted for laboratory analyses, which are summarized in Table 1. Following completion, each boring was backfilled in accordance with 15A NCAC 2C.

### **Analytical Results**

Based on the soil laboratory reports, summarized in Table 1 and presented in Attachment D, no petroleum hydrocarbon compounds identified as DRO and/or GRO were detected in any of the six soil samples collected from the site on February 21, 2012. Consequently, no soil concentrations are present above applicable action levels.

The field screening readings in many of the borings were above 100 parts per million (ppm) but no odors were observed. Simultaneous readings with a PID indicated readings generally below 1

Mr. Terry Fox  
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ppm. This discrepancy, along with the organic soil and no detectable contaminants, suggests the presence of methane in the soil samples.

### **Conclusions and Recommendations**

A Preliminary Site Assessment was conducted to evaluate the Calvary Assembly of God of Spruce Pine Property located at 1637 US 19E in Spruce Pine, Mitchell County, North Carolina. A geophysical investigation was conducted to evaluate the site for unknown USTs. The investigation found no evidence of metallic USTs within the proposed right-of-way. Six soil borings were advanced to evaluate the soil conditions throughout the proposed right-of-way. The laboratory reports of the soil samples from these borings suggest that no DRO or GRO concentrations were detected. Consequently, no soil concentrations are above applicable action levels.

AECOM appreciates the opportunity to work with the NCDOT on this project. Because laboratory analysis detected no compounds above the applicable action levels in the soil samples, no NCDENR notification is required. If you have any questions, please contact me at (919) 854-6238.

Sincerely,

Michael W. Branson, P.G.  
Project Manager

Attachments

c: Project File



TABLE 1

SOIL FIELD SCREENING AND ANALYTICAL RESULTS  
 CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY  
 SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA  
 NCDOT PROJECT NO. R-2519B  
 WBS ELEMENT 35609.1.1  
 AECOM PROJECT NO. 60241470

LOCATION	DEPTH (ft)	FID READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	ASSUMED ACTION LEVEL (mg/kg)
CA-1	0 - 2	0.31			
	2 - 4	0.35			
	4 - 6	18.51	CA-1	DRO (BQL) GRO (BQL)	10 10
	6 - 8	11.75			
	8 - 10	9.59			
CA-2	0 - 2	6.03			
	2 - 4	612	CA-2	DRO (BQL) GRO (BQL)	10 10
	4 - 6	341			
	6 - 8	578			
	8 - 10	187			
CA-3	0 - 2	14.28			
	2 - 4	709	CA-3	DRO (BQL) GRO (BQL)	10 10
	4 - 6	238			
	6 - 8	294			
	8 - 10	227			
CA-4	0 - 2	0.01			
	2 - 4	14.19			
	4 - 6	819	CA-4	DRO (BQL) GRO (BQL)	10 10
	6 - 8	360			
	8 - 10	109			
CA-5	0 - 2	0.01			
	2 - 4	0.07			
	4 - 6	155			
	6 - 8	238	CA-5	DRO (BQL) GRO (BQL)	10 10
	8 - 10	31			
CA-6	0 - 2	0.01			
	2 - 4	0.01			
	4 - 6	0.81			
	6 - 8	145	CA-6	DRO (BQL) GRO (BQL)	10 10

Soil samples were collected on February 21, 2012.

DRO - Diesel range organics.

GRO - Gasoline range organics.

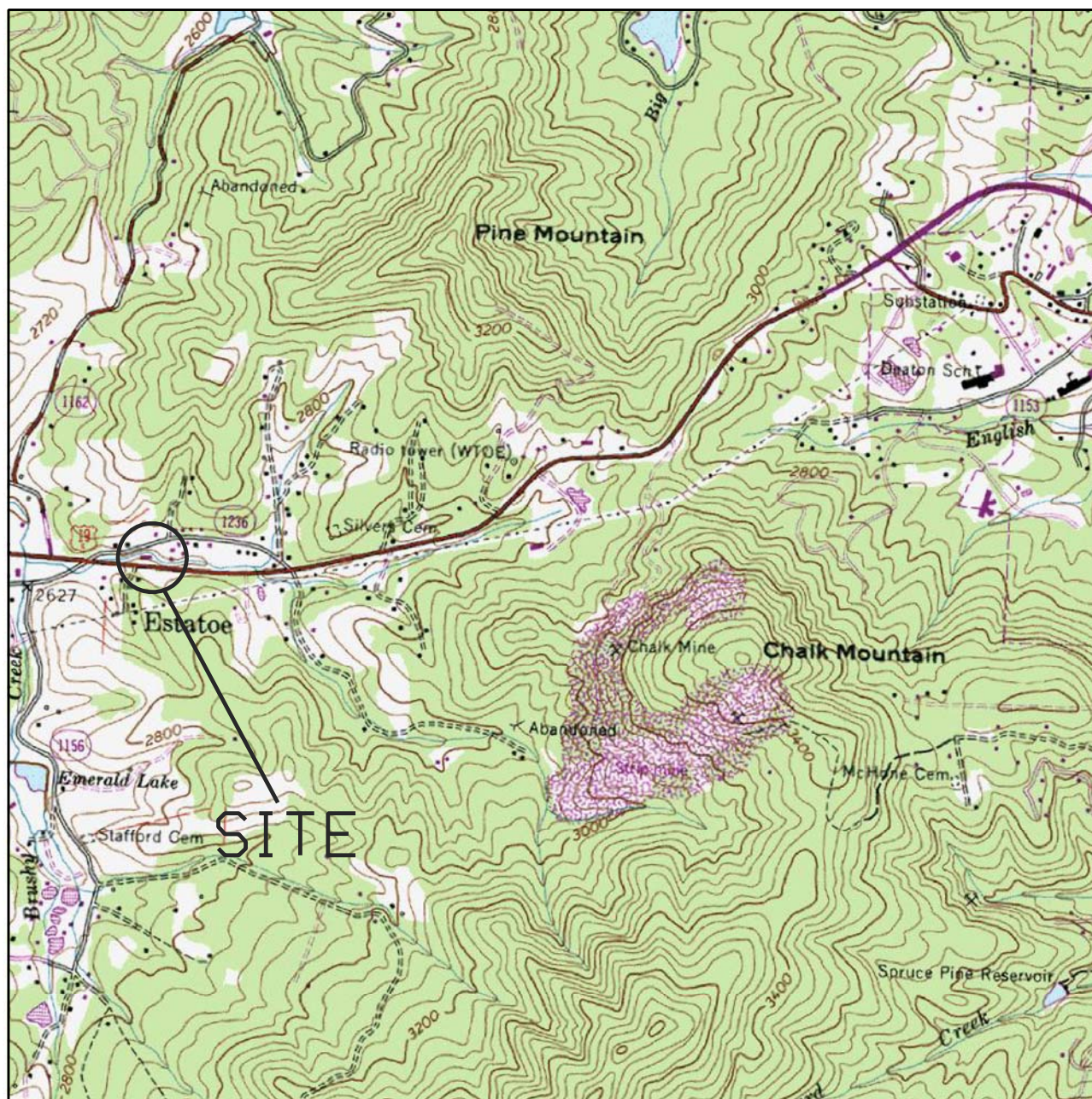
BQL - Below quantitation limit.

ppm - parts per million.

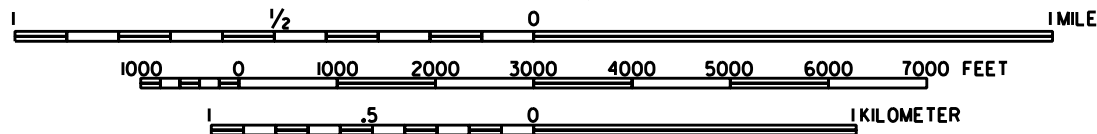
mg/kg - milligrams per kilogram.



## **FIGURES**



SCALE 1:24,000

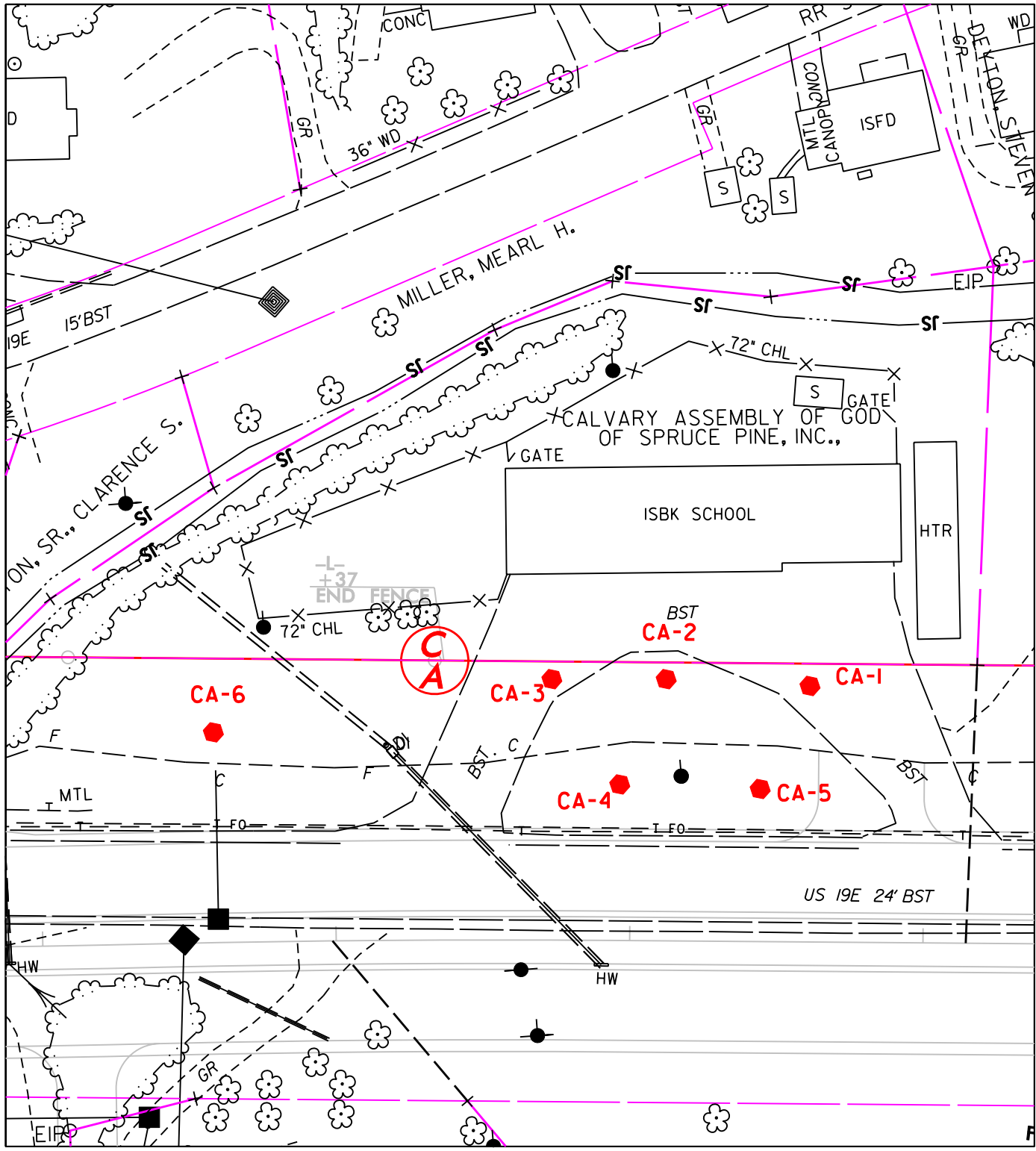


SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: MICAVILLE, NC



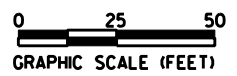
**FIGURE I**  
**VICINITY MAP**  
CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY  
SPRUCE PINE, MITCHELL COUNTY NORTH CAROLINA  
FEBRUARY 2012

60241470



**LEGEND**

**CA-1**  
 SOIL SAMPLE LOCATION AND IDENTIFICATION



**FIGURE 2**  
**SITE MAP**  
 CALVARY ASSEMBLY OF GOD OF SPRUCE PINE, INC. PROPERTY  
 SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA  
 FEBRUARY 2012 60241470



**ATTACHMENT A**

## **GEOPHYSICAL INVESTIGATION REPORT**

### *EM61 SURVEYS*

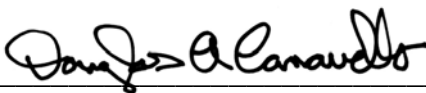
#### **CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY**

**1637 US Highway 19 East  
Mitchell County, North Carolina**

**February 28, 2012**

**Report prepared for: Michael W. Branson, PG  
AECOM Environment  
701 Corporate Center Drive, Suite 475  
Raleigh, North Carolina 27607**

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

**Reviewed by:**   
Douglas Canavello, P.G.

**PYRAMID ENVIRONMENTAL & ENGINEERING, P.C.**

**P.O. Box 16265  
GREENSBORO, NC 27416-0265  
(336) 335-3174**

**AECOM Environment**  
**GEOPHYSICAL INVESTIGATION REPORT**  
**CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY**  
**1637 US Highway 19 East**  
**Mitchell County, North Carolina**

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FIGURES

Figure 1	Geophysical Equipment & Site Photographs
Figure 2	EM61 Metal Detection - Bottom Coil Results
Figure 3	EM61 Metal Detection - Differential Results

## **1.0 INTRODUCTION**

Pyramid Environmental conducted a geophysical investigation for AECOM Environmental across the southern portion of the Calvary Assembly of God of Spruce Pine property (Parcel 27) located at 1637 US Highway 19 East in Mitchell County, North Carolina. Conducted on February 7, 2012, the geophysical investigation was performed as part of the North Carolina Department of Transportation (NCDOT) preliminary site assessment project to determine if unknown, metallic underground storage tanks (USTs) were present beneath the proposed right-of way (ROW) portion of the property.

The geophysical survey area, consisting primarily of flay-lying, grass and asphalt-covered terrain, encompassed the southern parcel of property located between US Highway 19 East and the school/office building. The geophysical survey area had a maximum length and width of 290 feet and 53 feet, respectively. The Calvary Assembly of God of Spruce Pine property contains a daycare and office facility.

AECOM Environment representative Mr. Michael Branson, PG identified the geophysical survey area to Pyramid Environmental personnel and provided site maps showing the boundaries of the proposed survey area prior to conducting the investigation. Photographs of the geophysical equipment used in this investigation and the geophysical survey area are shown in **Figure 1**.

## **2.0 FIELD METHODOLOGY**

Prior to conducting the geophysical investigation, a 10-foot by 20-foot survey grid was established across the geophysical survey area using measuring tapes 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. The EM survey was performed on February 7, 2012 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, 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.

Preliminary geophysical results obtained from the site were emailed to Mr. Branson during the week of February 20, 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 anomaly intersecting grid coordinates X=120 Y=40 is probably in response to a storm sewer line. The high amplitude EM61 anomaly centered near grid coordinates X=182 Y=75 is probably in response to the metal dumpster. The small, randomly scattered, EM61 bottom coil anomalies centered near grid coordinates X=205 Y=50 and X=268 Y=40 are probably in response to buried, miscellaneous, metallic debris or known surface objects. The EM61 anomaly centered near grid coordinates X=10 Y=35 is probably in response to the end of the metal guard rail that runs along the north side of US Highway 19 East.

Due to the absence of unexplained EM61 differential anomalies, ground penetrating radar scans were not conducted at this site. The EM61 metal detection survey suggests the proposed ROW area at the Calvary Assembly of God of Spruce Pine property does not contain metallic USTs.

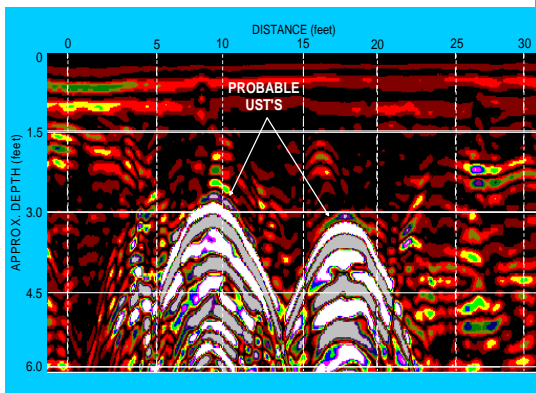
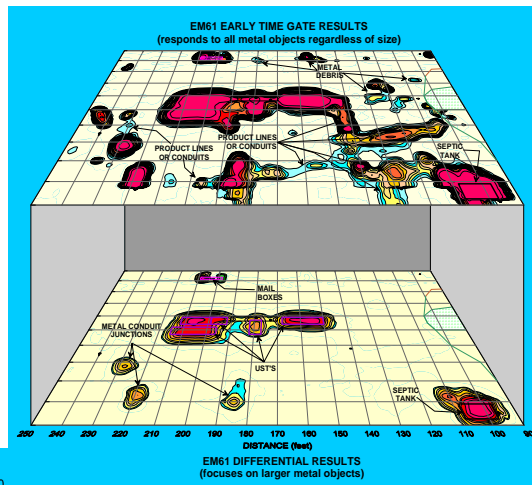
#### **4.0 SUMMARY & CONCLUSIONS**

Our evaluation of the EM61 data collected across the geophysical survey area at the Calvary Assembly of God of Spruce Pine property (Parcel 27) located at 1637 US Highway 19 East in Mitchell County, North Carolina provides the following summary and conclusions:

- The EM61 surveys provided reliable results for the detection of metallic USTs within the surveyed portion of the site.
- The linear EM61 anomaly intersecting grid coordinates X=120 Y=40 is probably in response to a storm sewer line.
- The high amplitude EM61 anomaly centered near grid coordinates X=182 Y=75 is probably in response to the metal dumpster.
- The EM61 metal detection survey suggests the proposed ROW area at the Calvary Assembly of God of Spruce Pine property does not contain metallic USTs.

#### **5.0 LIMITATIONS**

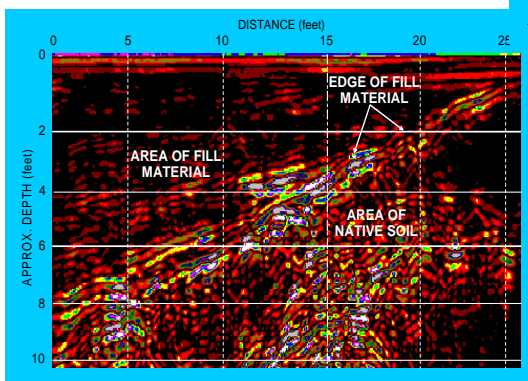
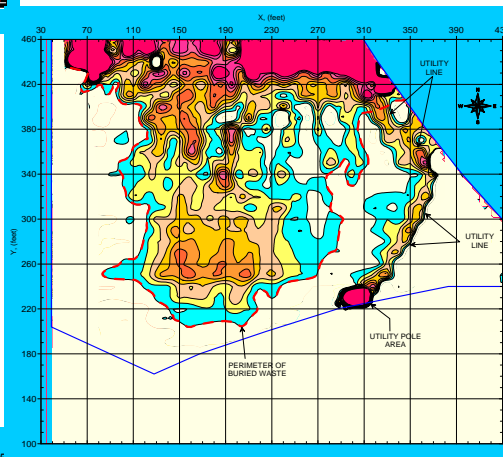
EM61 surveys have been performed and this report prepared for AECOM Environmental in accordance with generally accepted guidelines for EM61 surveys. It is generally recognized that the results of the EM61 survey are non-unique and may not represent actual subsurface conditions. The EM61 results obtained for this project have not conclusively determined that the surveyed portion of the site does not contain buried, metallic USTs but that none were detected.



## 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 southern portion of the Calvary Assembly of God of Spruce Pine property on February 7, 2012. Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar scans were not performed at this site.



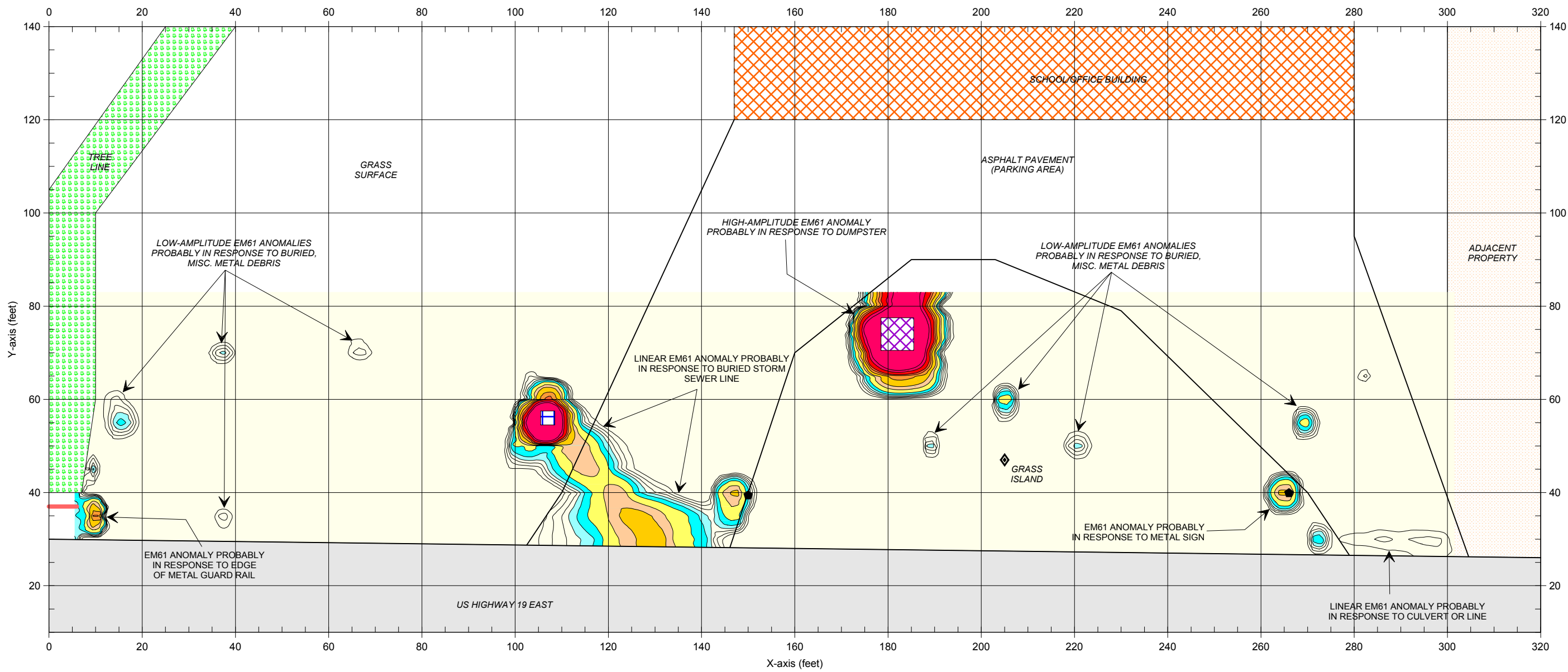
The photograph shows the southern portion (geophysical survey area) of the Calvary Assembly of God of Spruce Pine property (Parcel 27) located at 1637 US 19E in Mitchell County, North Carolina. The photograph is viewed in a westerly direction.



CLIENT	AECOM ENVIRONMENT		DATE	02/28/12	DRWN	MJD
SITE	CALVARY ASSEMBLY OF GOD OF SPRUCE PINE		LAY		CPND	
CITY	MITCHELL COUNTY	STATE	NORTH CAROLINA	ENWG		
TITLE	GEOPHYSICAL RESULTS		PROJ#	2012-035		

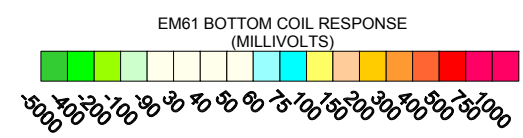
GEOPHYSICAL EQUIPMENT  
& SITE PHOTOGRAPHS





**LEGEND**

- SURVEY AREA: EM61 DATA ACQUIRED ALONG Y-AXIS TRENDING LINES SPACED 5 FEET APART
- BUILDING OR STRUCTURE
- DUMPSTER
- TREE LINE
- STORM SEWER GRATE
- METAL GUARD RAIL
- SIGN
- UTILITY POLE



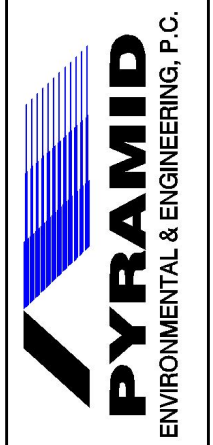
The contour plot shows the bottom coil (most sensitive) response of the EM61 instrument in millivolts (mV). The bottom coil response shows buried metallic objects regardless of size. The EM61 survey was conducted on February 7, 2012 using a Geonics EM61 instrument. Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar (GPR) scans were not performed at this site.

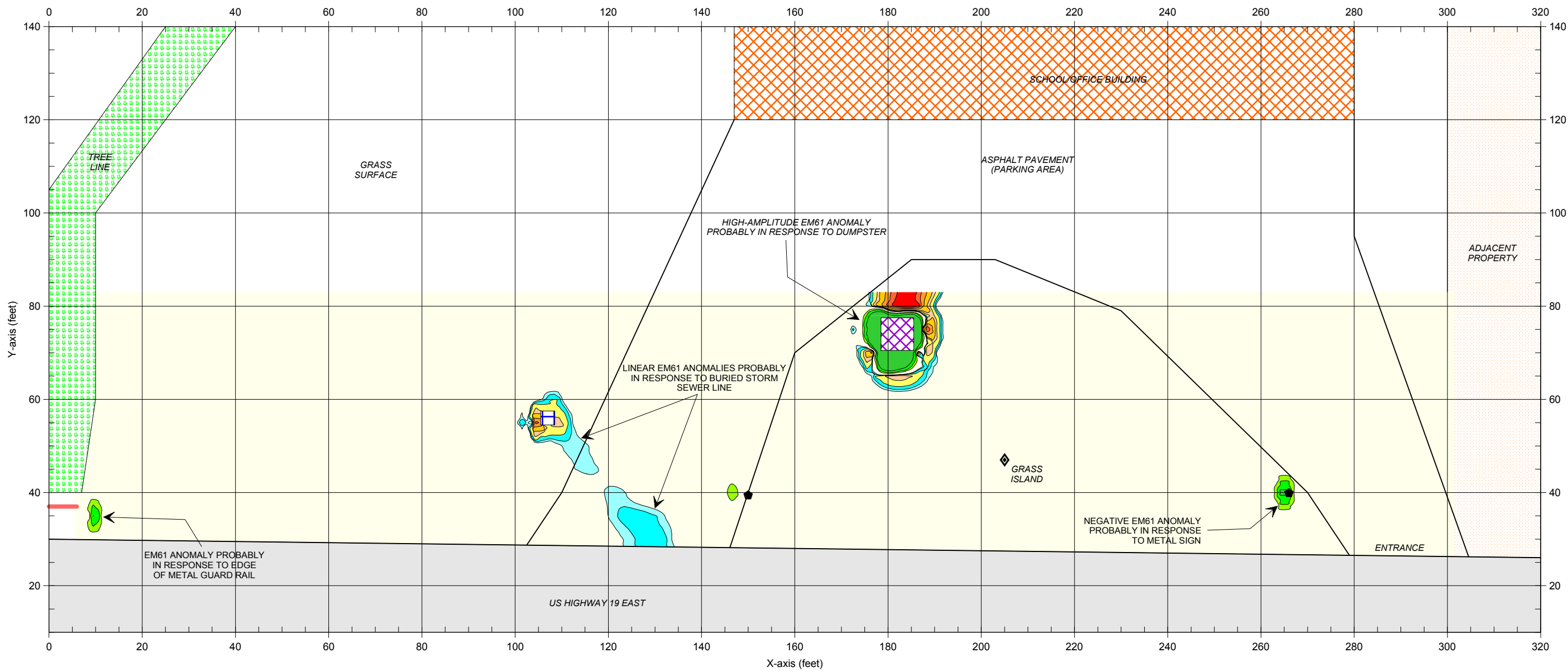
The EM61 metal detection survey did not detect possible metallic USTs within the surveyed portions of the site.

**EM61 METAL DETECTION (BOTTOM COIL RESULTS)**

FIGURE 2

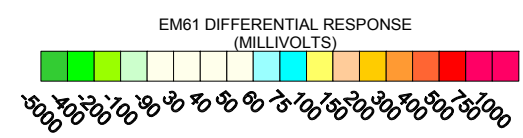
GRAPHIC SCALE IN FEET	
MJD	DRWN
02/28/12	CHKO
DATE	FIGURE
SY	2012-035
DWG	L-NO
AECOM ENVIRONMENT	
CALVARY ASSEMBLY OF GOD-SPRUCE PINE - PARCEL 27	
MITCHELL COUNTY	NORTH CAROLINA
GEOPHYSICAL RESULTS	





**LEGEND**

	SURVEY AREA: EM61 DATA ACQUIRED ALONG Y-AXIS TRENDING LINES SPACED 5 FEET APART
	BUILDING OR STRUCTURE
	DUMPSTER
	TREE LINE
	STORM SEWER GRATE
	METAL GUARD RAIL
	SIGN
	UTILITY POLE



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 February 7, 2012 using a Geonics EM61 instrument. Due to an absence of unexplained EM61 differential anomalies, ground penetrating radar (GPR) scans were not performed at this site.

The EM61 metal detection survey did not detect possible metallic USTs within the surveyed portions of the site.

AECOM ENVIRONMENT		MJD		FIGURE	
CALVARY ASSEMBLY OF GOD-SPRUCE PINE - PARCEL 27		02/28/12		2012-035	
MITCHELL COUNTY		DATE		L-NO	
NORTH CAROLINA		DWG		2012-035	
GEOPHYSICAL RESULTS		DRWN		FIGURE	
		CHKD			
		MJD			

**PYRAMID**  
ENVIRONMENTAL & ENGINEERING, P.C.

EM61 METAL DETECTION  
(DIFFERENTIAL RESULTS)

**ATTACHMENT B**

# TEST BORING REPORT

**PROJECT** CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY

**BORING NUMBER** CA-1

**CLIENT** NCDOT R-2519B

**PAGE** 1

**PROJECT NUMBER** 60241470

**ELEVATION** \_\_\_\_\_

**CONTRACTOR** REGIONAL PROBING

**DATE** 2/21/12

**EQUIPMENT** GEOPROBE

**DRILLER** OPPER

**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS	
5.0			0.31		MEDIUM BROWN, MICACEOUS, SILT/CLAY/SAND, CLAY INCREASES DOWN. DRY, NO ODORS.	
			0.35		AS ABOVE. DRY. NO ODORS.	
			18.51		AS ABOVE. DRY. NO ODORS.	
			11.75		AS ABOVE. DRY. NO ODORS.	
			9.59		AS ABOVE. WET AT 10 FEET. NO ODORS.	
	10.0					AS ABOVE. WET. NO ODORS. NOT SAMPLED.
15.0						
20.0						



# TEST BORING REPORT

**PROJECT** CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY

**CLIENT** NCDOT R-2519B

**PROJECT NUMBER** 60241470

**CONTRACTOR** REGIONAL PROBING

**EQUIPMENT** GEOPROBE

**BORING NUMBER** CA-2

**PAGE** 1

**ELEVATION**

**DATE** 2/21/12

**DRILLER** OPPER

**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			6.03		MEDIUM TO OLIVE GRAY, MICACEOUS, SILT/SAND/CLAY, CLAY INCREASES DOWN. DRY. NO ODORS.
			6.12		AS ABOVE. DRY. NO ODORS. SUBMIT TO LABORATORY FOR ANALYSIS.
5.0			3.41		AS ABOVE. DRY. NO ODORS.
			5.78		AS ABOVE. DRY. NO ODORS.
			1.87		AS ABOVE. WET AT 10 FEET. NO ODORS.
10.0			1.67		MOTTLED WHITE, AND MEDIUM BROWN COARSE-GRAINED SAND, WET AT 12 FEET. NO ODORS.
					BORING TERMINATED AT 12 FEET. GROUNDWATER ENCOUNTERED AT 10 FEET.
15.0					
20.0					





# TEST BORING REPORT

**PROJECT** CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY

**CLIENT** NCDOT R-2519B

**PROJECT NUMBER** 60241470

**CONTRACTOR** REGIONAL PROBING

**EQUIPMENT** GEOPROBE

**BORING NUMBER** CA-4

**PAGE** 1

**ELEVATION** \_\_\_\_\_

**DATE** 2/21/12

**DRILLER** OPPER

**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			0.01		MEDIUM BROWN, MICACEOUS, SILT/SAND. DRY, NO ODORS.
			14.19		AS ABOVE. DRY. NO ODORS.
5.0			819		OLIVE GRAY ORGANIC SILTY MEDIUM-GRAINED SAND, OCCASIONAL WOODY DEBRIS. DRY. NO ODORS. SUBMIT TO LABORATORY FOR ANALYSIS.
			360		AS ABOVE. DRY. NO ODORS.
10.0			109		AS ABOVE TO 11 FEET. BECOMES A WHITE COARSE-GRAINED QUARTZ SAND. DRY. NO ODORS.
			602		AS ABOVE. WET AT 12 FEET. NO ODORS. NO ODORS.
15.0					
20.0					BORING TERMINATED AT 12 FEET. GROUNDWATER ENCOUNTERED AT 12 FEET.



# TEST BORING REPORT

**PROJECT** CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY

**CLIENT** NCDOT R-2519B

**PROJECT NUMBER** 60241470

**CONTRACTOR** REGIONAL PROBING

**EQUIPMENT** GEOPROBE

**BORING NUMBER** CA-5

**PAGE** 1

**ELEVATION** \_\_\_\_\_

**DATE** 2/21/12

**DRILLER** OPPER

**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS	
5.0			0.01		MEDIUM BROWN, MICACEOUS, SILT/SAND. DRY, NO ODORS.	
				0.07		AS ABOVE. DRY. NO ODORS.
				155		OLIVE GRAY ORGANIC SILT/SAND, OCCASIONAL WOODY DEBRIS, OCCASIONAL QUARTZ FRAGMENTS. DRY. NO ODORS. SUBMIT TO LABORATORY FOR ANALYSIS.
				238		AS ABOVE. DRY. NO ODORS. SUBMIT TO LABORATORY FOR ANALYSIS.
				31		AS ABOVE. DRY. NO ODORS.
10.0						
15.0						
20.0						





# TEST BORING REPORT

<b>PROJECT</b> <u>CALVARY ASSEMBLY OF GOD OF SPRUCE PINE PROPERTY</u> <b>CLIENT</b> <u>NCDOT R-2519B</u> <b>PROJECT NUMBER</b> <u>60241470</u> <b>CONTRACTOR</b> <u>REGIONAL PROBING</u> <b>EQUIPMENT</b> <u>GEOPROBE</u>	<b>BORING NUMBER</b> <u>CA-6</u> <b>PAGE</b> <u>1</u> <b>ELEVATION</b> _____ <b>DATE</b> <u>2/21/12</u> <b>DRILLER</b> <u>OPPER</u> <b>PREPARED BY</b> <u>BRANSON</u>
---	--

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5.0			0.01		MEDIUM BROWN, MICACEOUS, SILT/SAND. DRY, NO ODORS.
			0.01		AS ABOVE. DRY. NO ODORS.
			0.81		AS ABOVE. DRY. NO ODORS.
10.0			145		OLIVE GRAY ORGANIC SILTY SAND, OCCASIONAL QUARTZ FRAGMENTS, OCCASIONAL WOODY DEBRIS. WETY AT 7.5 FEET. NO ODORS. SUBMIT TO LABORATORY FOR ANALYSIS.
					BORING TERMINATED AT 8 FEET. GROUNDWATER ENCOUNTERED AT 7.5 FEET.
15.0					
20.0					



**ATTACHMENT C**



PHOTO 1 - BORING WITHIN RIGHT-OF-WAY LOOKING NORTH



PHOTO 2 - BORING WITHIN RIGHT-OF-WAY LOOKING NORTH



PHOTO 3 - BORING WITHIN RIGHT-OF-WAY LOOKING NORTH

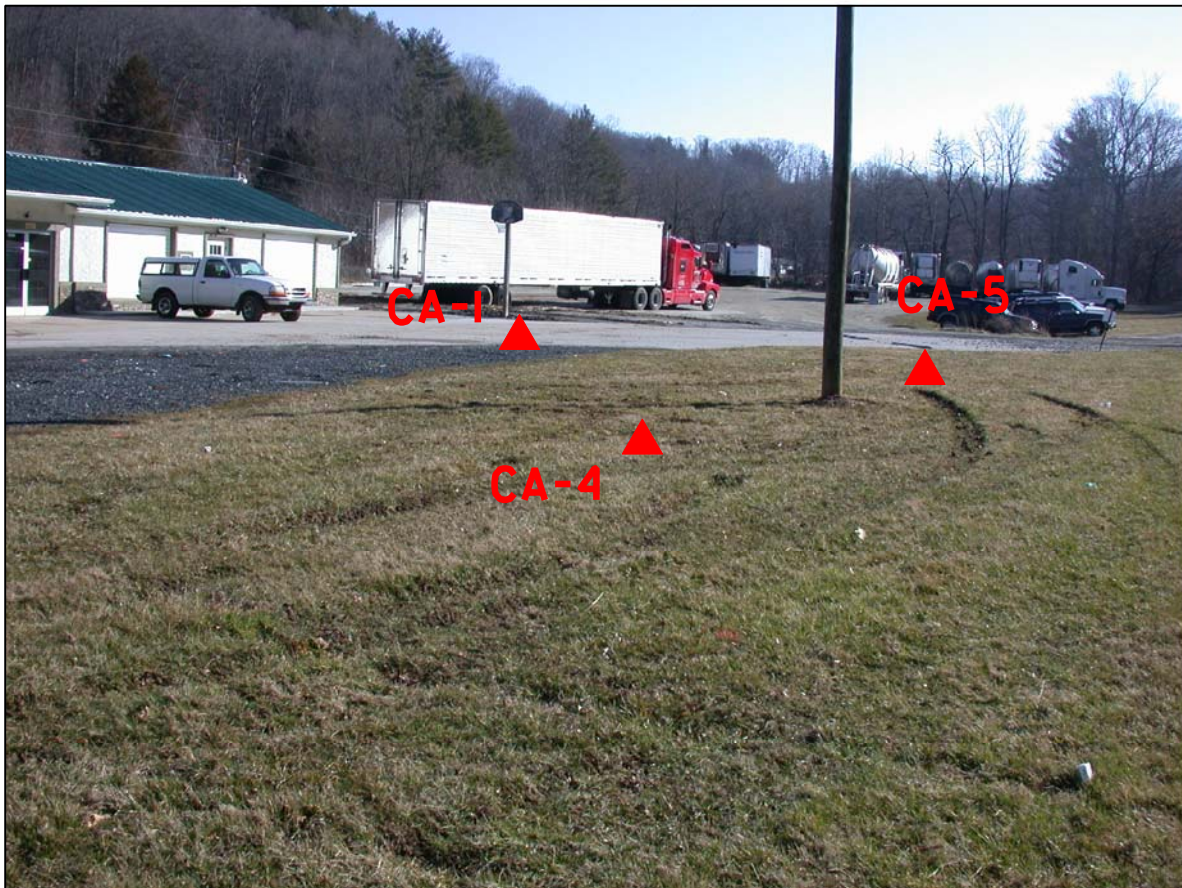


PHOTO 4 - BORINGS WITHIN RIGHT-OF-WAY LOOKING EAST



**PHOTO 5 - BORING WITHIN RIGHT-OF-WAY LOOKING NORTH**

**ATTACHMENT D**



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March 01, 2012

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

RE: Project: Calvary Assembly WBS#35609.1.1  
Pace Project No.: 92112767

Dear Chemical Engineer:

Enclosed are the analytical results for sample(s) received by the laboratory on February 23, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Sincerely,

Lorri Patton

lorri.patton@pacelabs.com  
Project Manager

Enclosures

cc: Mr. Mike Branson, AECOM



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Calvary Assembly WBS#35609.1.1  
Pace Project No.: 92112767

### Charlotte Certification IDs

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Certification #: 99006001  
South Carolina Drinking Water Cert. #: 99006003  
Virginia Drinking Water Certification #: 00213

Connecticut Certification #: PH-0104  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Louisiana DHH Drinking Water # LA 100031  
West Virginia Certification #: 357  
Virginia/VELAP Certification #: 460144

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## REPORT OF LABORATORY ANALYSIS

Page 2 of 14

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### SAMPLE ANALYTE COUNT

Project: Calvary Assembly WBS#35609.1.1

Pace Project No.: 92112767

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92112767001	CA-1	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92112767002	CA-2	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92112767003	CA-3	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92112767004	CA-4	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92112767005	CA-5	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C
92112767006	CA-6	EPA 8015 Modified	MEJ	2	PASI-C
		EPA 8015 Modified	AW	2	PASI-C
		ASTM D2974-87	TNM	1	PASI-C

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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-1**      **Lab ID: 92112767001**      Collected: 02/21/12 08:00      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 3546				
Diesel Components	ND	mg/kg	6.4	1	02/24/12 10:35	02/25/12 22:50	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	61	%	41-119	1	02/24/12 10:35	02/25/12 22:50	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 5035A/5030B				
Gasoline Range Organics	ND	mg/kg	7.4	1	02/28/12 14:07	02/28/12 18:46	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	90	%	70-167	1	02/28/12 14:07	02/28/12 18:46	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	21.7	%	0.10	1		02/24/12 14:45		



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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-2**      **Lab ID: 92112767002**      Collected: 02/21/12 08:10      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.3	1	02/24/12 10:35	02/25/12 23:20	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	69 %		41-119	1	02/24/12 10:35	02/25/12 23:20	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.5	1	02/28/12 14:07	02/28/12 19:11	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	86 %		70-167	1	02/28/12 14:07	02/28/12 19:11	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>20.5 %</b>		0.10	1		02/24/12 14:46		



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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-3**      **Lab ID: 92112767003**      Collected: 02/21/12 08:30      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 3546				
Diesel Components	ND	mg/kg	6.6	1	02/24/12 10:35	02/25/12 23:20	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	70 %		41-119	1	02/24/12 10:35	02/25/12 23:20	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified		Preparation Method: EPA 5035A/5030B				
Gasoline Range Organics	ND	mg/kg	6.7	1	02/28/12 14:07	02/28/12 19:35	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	88 %		70-167	1	02/28/12 14:07	02/28/12 19:35	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>24.9 %</b>		0.10	1		02/24/12 14:46		



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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-4**      **Lab ID: 92112767004**      Collected: 02/21/12 08:45      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.3	1	02/24/12 10:35	02/25/12 23:49	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	78	%	41-119	1	02/24/12 10:35	02/25/12 23:49	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	6.0	1	02/28/12 14:07	02/28/12 20:00	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	95	%	70-167	1	02/28/12 14:07	02/28/12 20:00	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>20.7</b>	%	0.10	1		02/24/12 14:46		



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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-5**      **Lab ID: 92112767005**      Collected: 02/21/12 09:00      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified      Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.1	1	02/24/12 10:35	02/25/12 23:49	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	66 %		41-119	1	02/24/12 10:35	02/25/12 23:49	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified      Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	5.3	1	02/28/12 14:07	02/28/12 20:24	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	84 %		70-167	1	02/28/12 14:07	02/28/12 20:24	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	17.7 %		0.10	1		02/24/12 14:46		



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### ANALYTICAL RESULTS

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

**Sample: CA-6**      **Lab ID: 92112767006**      Collected: 02/21/12 09:30      Received: 02/23/12 11:55      Matrix: Solid

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 GCS THC-Diesel</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 3546						
Diesel Components	ND	mg/kg	6.3	1	02/24/12 10:35	02/26/12 00:19	68334-30-5	
<b>Surrogates</b>								
n-Pentacosane (S)	88 %		41-119	1	02/24/12 10:35	02/26/12 00:19	629-99-2	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 8015 Modified    Preparation Method: EPA 5035A/5030B						
Gasoline Range Organics	ND	mg/kg	7.2	1	02/28/12 14:07	02/28/12 20:48	8006-61-9	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	89 %		70-167	1	02/28/12 14:07	02/28/12 20:48	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87						
Percent Moisture	<b>20.4 %</b>		0.10	1		02/24/12 14:47		



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### QUALITY CONTROL DATA

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

QC Batch: GCV/5775 Analysis Method: EPA 8015 Modified  
 QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics  
 Associated Lab Samples: 92112767001, 92112767002, 92112767003, 92112767004, 92112767005, 92112767006

METHOD BLANK: 728172 Matrix: Solid  
 Associated Lab Samples: 92112767001, 92112767002, 92112767003, 92112767004, 92112767005, 92112767006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.8	02/28/12 12:13	
4-Bromofluorobenzene (S)	%	94	70-167	02/28/12 12:13	

LABORATORY CONTROL SAMPLE: 728173

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	24.3	23.3	96	70-165	
4-Bromofluorobenzene (S)	%			96	70-167	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 728174 728175

Parameter	Units	92112765010		728174		728175		% Rec Limits	RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.			
Gasoline Range Organics	mg/kg	ND	22.2	22.2	26.7	26.3	117	115	47-187	1
4-Bromofluorobenzene (S)	%						99	97	70-167	



### QUALITY CONTROL DATA

Project: Calvary Assembly WBS#35609.1.1

Pace Project No.: 92112767

QC Batch: OEXT/16538 Analysis Method: EPA 8015 Modified  
 QC Batch Method: EPA 3546 Analysis Description: 8015 Solid GCSV  
 Associated Lab Samples: 92112767001, 92112767002, 92112767003, 92112767004, 92112767005, 92112767006

METHOD BLANK: 726961 Matrix: Solid  
 Associated Lab Samples: 92112767001, 92112767002, 92112767003, 92112767004, 92112767005, 92112767006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Components	mg/kg	ND	5.0	02/25/12 21:22	
n-Pentacosane (S)	%	88	41-119	02/25/12 21:22	

LABORATORY CONTROL SAMPLE: 726962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	66.7	47.9	72	49-113	
n-Pentacosane (S)	%			77	41-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 726963 726964

Parameter	Units	92112766005		726964		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Diesel Components	mg/kg	ND	75.2	74.7	47.2	62	74	10-146	17	
n-Pentacosane (S)	%					71	86	41-119		



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**QUALITY CONTROL DATA**

Project: Calvary Assembly WBS#35609.1.1  
 Pace Project No.: 92112767

QC Batch: PMST/4517 Analysis Method: ASTM D2974-87  
 QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
 Associated Lab Samples: 92112767001, 92112767002, 92112767003, 92112767004, 92112767005, 92112767006

SAMPLE DUPLICATE: 726836

Parameter	Units	92112765010 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	15.2	15.7	3	

SAMPLE DUPLICATE: 726837

Parameter	Units	92112768005 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	26.8	25.6	4	

## QUALIFIERS

Project: Calvary Assembly WBS#35609.1.1

Pace Project No.: 92112767

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

### LABORATORIES

PASI-C Pace Analytical Services - Charlotte



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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Calvary Assembly WBS#35609.1.1

Pace Project No.: 92112767

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92112767001	CA-1	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767002	CA-2	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767003	CA-3	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767004	CA-4	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767005	CA-5	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767006	CA-6	EPA 3546	OEXT/16538	EPA 8015 Modified	GCSV/11447
92112767001	CA-1	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767002	CA-2	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767003	CA-3	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767004	CA-4	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767005	CA-5	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767006	CA-6	EPA 5035A/5030B	GCV/5775	EPA 8015 Modified	GCV/5776
92112767001	CA-1	ASTM D2974-87	PMST/4517		
92112767002	CA-2	ASTM D2974-87	PMST/4517		
92112767003	CA-3	ASTM D2974-87	PMST/4517		
92112767004	CA-4	ASTM D2974-87	PMST/4517		
92112767005	CA-5	ASTM D2974-87	PMST/4517		
92112767006	CA-6	ASTM D2974-87	PMST/4517		



# CHAIN-OF-CUSTODY / Analytical Request Document

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

<b>Section A</b> Required Client Information: Company: <u>AECOM</u> Address: <u>101 Corporate Center Dr</u> <u>Palmdale, DC 93607</u> Email: <u>Mike.Brown@Aecom.com</u> <u>PH 8546238 F 9198596259</u> Requested Due Date/TAT: <u>2 weeks</u>		<b>Section B</b> Required Project Information: Report To: <u>Mike Brown</u> Copy To: <u>UCOST</u> Purchase Order No.: <u>UBS 35609.1</u> Project Name: <u>CAVARY Assembly</u> Project Number: <u>60241470</u>		<b>Section C</b> Invoice Information: Attention: <u>UCOST</u> Company Name: <u>UCOST</u> Address: Pace Quote Reference: <u>Brown PO</u> Pace Project Manager: <u>UCOST</u> Pace Profile #:	
<b>REGULATORY AGENCY</b> <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input checked="" type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER			Site Location STATE: <u>DC</u>		

ITEM #	Section D Required Client Information Matrix Codes MATRIX / CODE Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)	Analysis Test	Residual Chlorine (Y/N)	Pace Project No./ Lab ID.
				COMPOSITE START DATE TIME	COMPOSITE END/GRAB DATE TIME							
1	CA-1	SL	SL	2/21/12 0800			4 2					-001
2	CA-2	SL	SL	2/21/12 0810			4 2					-002
3	CA-3	SL	SL	2/21/12 0830			4 2					-003
4	CA-4	SL	SL	2/21/12 0845			4 2					-004
5	CA-5	SL	SL	2/21/12 0900			4 2					-005
6	CA-6	SL	SL	2/21/12 0930			4 2					-006
7												
8												
9												
10												
11												
12												

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<u>Mike Brown / Aecom</u>	<u>2/23/12</u>	<u>11:00</u>	<u>Mike Brown / Aecom</u>	<u>2/23/12</u>	<u>11:30</u>	
<u>Mike Brown / Aecom</u>	<u>2/23/12</u>	<u>11:55</u>	<u>Mike Brown / Aecom</u>	<u>2/23/12</u>	<u>11:55</u>	

Temp in °C \_\_\_\_\_  
 Received on Ice (Y/N) X  
 Custody Sealed Cooler (Y/N) N  
 Samples Intact (Y/N) Y

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

F-ALL-Q-020/rev.07, 15-May-2007

ORIGINAL



Document Name: **Sample Condition Upon Receipt (SCUR)**  
 Document No.: F-ASV-CS-003-rev.07

Document Revised: October 19, 2011  
 Page 1 of 2  
 Issuing Authorities:  
 Pace Asheville Quality Office

Client Name: AECOM Project # 92112767

Where Received:  Huntersville  Asheville  Eden  
 Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other  
 Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Optional  
 Proj. Due Date:  
 Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Circle Thermometer Used: IR Gun #2 - 80344039 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun  
 IR Gun Back Up - 111565135

Temp Correction Factor: Add Subtract 0.2 C  
 Corrected Cooler Temp.: 3.8 C Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: 2/23/12

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

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

SCURF Review: JP Date: 2/23/12 SRF Review: JP Date: 2/23/12

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