

June 25, 2010

Ms. Cheryl Youngblood, LG  
North Carolina Department of Transportation  
Geotechnical Engineering Unit  
1589 Mail Service Center  
Raleigh, North Carolina 27699-1589

Reference: Preliminary Site Assessment  
Triad Holding Company Property (Parcel #119)  
1557 Union Cross Road  
Kernersville, Forsyth County, North Carolina  
NCDOT Tip No. U-4909  
WBS Element 40278.1.1  
AECOM Project No. 60155373

Dear Ms. Youngblood:

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 May 3, 2010, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated May 5, 2010. 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 Triad Holding Company Property (Parcel #119) is located at 1557 Union Cross Road (SR 2643) in Kernersville, Forsyth County, North Carolina. The property is situated on the east side of Union Cross Road and in the northeast quadrant of the intersection of Union Cross Road and Interstate 40 (Figure 1). Based on information supplied by the NCDOT and the site visit, AECOM understands that the site is an active gas station/convenience store (The Pop Shoppe 185) where one 15,000-gallon and one 10,000-gallon gasoline underground storage tanks (USTs), one 5,000-gallon diesel fuel UST, and one 3,000-gallon kerosene UST are present. The building in which the store is housed is part of a strip mall containing several businesses. The structure, subdivided into several businesses, consists of one block building with an asphalt parking lot on all sides. A structure containing a drive-through car wash is located on the rear of the property. Canopied pump islands and the USTs are located in front of the convenience store (Figure 2). The NCDOT has advised that only the existing right-of-way/easement will be used

for this portion of the road improvements (Figure 2). However, because of the location of the tanks and pump islands, 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 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. According to the database, the USTs on the property are operated under Facility Number 0-035990. The operator and owner of the tanks were listed as follows:

Owner

Mid-State Petroleum, Inc.  
4192 Mendenhall Oaks Parkway  
High Point, NC 27265-8034  
(336) 841-3000

Operator

The Pop Shoppe 185  
1557 Union Cross Road  
Kernersville, NC 27284  
(336) 249-0363

## **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. A survey grid was laid out at the property with the X-axis oriented approximately parallel to High Point Road and the Y-axis oriented approximately perpendicular to High Point Road. The grid was located to cover the accessible portions of the proposed right-of-way. The survey lines were spaced 5 feet apart. Magnetic data was collected continuously along each survey line with a data logger. 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.

With the exception of an overgrown area on the Interstate 40 right-of-way, access was available to all areas of the right-of-way and several anomalies were detected with the geophysical survey. All of these anomalies were attributed to buried utility lines or conduits. The survey concluded that no metallic USTs, other than the known tanks, were present on the right-of-way. A detailed report of findings and interpretations is presented in Attachment A.

### **Site Assessment Activities**

On May 26, 2010, AECOM mobilized to the site to conduct a Geoprobe® direct push investigation to evaluate soil conditions within the proposed right-of-way/easement. Continuous sampling using direct push technology (American Environmental Drilling of Aberdeen, 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 Prism Laboratories in Charlotte, 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).

Four direct-push holes (TH-1 through TH-4) were advanced within the right-of-way to a depth of 15 feet as shown in Figure 2 and Attachment B. Borings TH-1 and TH-2 were located to evaluate the Interstate 40 right-of-way, and borings TH-3 and TH-4 were placed to assess the soil conditions along the Union Cross Road right-of-way (Attachment C). The lithology encountered by the direct-push samples generally was consistent throughout the site. The ground surface was covered with about 2 to 3 inches of topsoil. Below the surface to a depth of 8 to 12 feet was a medium to reddish brown silt/clay. Underlying this material was a mottled medium brown and tan silt/sand or a mottled pink and white medium-grained sand saprolite. No bedrock was encountered in any of the borings. The “Geologic Map of North Carolina” dated 1985 indicates that the site is underlain by granite. The soil observed at the site is consistent with this parent rock. All the borings were terminated at a depth of 15 feet. No groundwater was observed in any of the borings. 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 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 four soil samples collected from the site on May 26, 2010. Consequently, no concentrations are present above applicable action levels.

Ms. Cheryl Youngblood  
June 25, 2010  
Page 4

### Conclusions and Recommendations

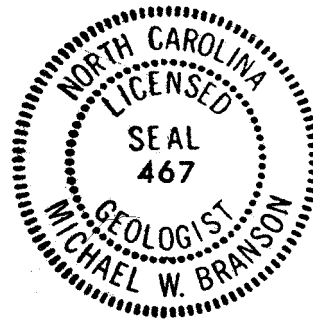
A Preliminary Site Assessment was conducted to evaluate the Triad Holding Company Property (Parcel #119) located at 1557 Union Cross Road in Kernersville, Forsyth County, North Carolina. Four soil borings were advanced to evaluate the soil conditions throughout the existing right-of-way. The laboratory reports of the soil samples from these borings suggest that no DRO and/or GRO concentrations were present above the action level in any of the four soil samples analyzed.

AECOM appreciates the opportunity to work with the NCDOT on this project. Because no compounds were detected above the method detection limits in the soil samples, no notification is required to the NCDENR. 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  
 TRIAD HOLDING COMPANY PROPERTY (PARCEL #119)  
 KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA  
 NCDOT PROJECT NO. U-4909  
 WBS ELEMENT 40278.1.1  
 AECOM PROJECT NO. 60155373**

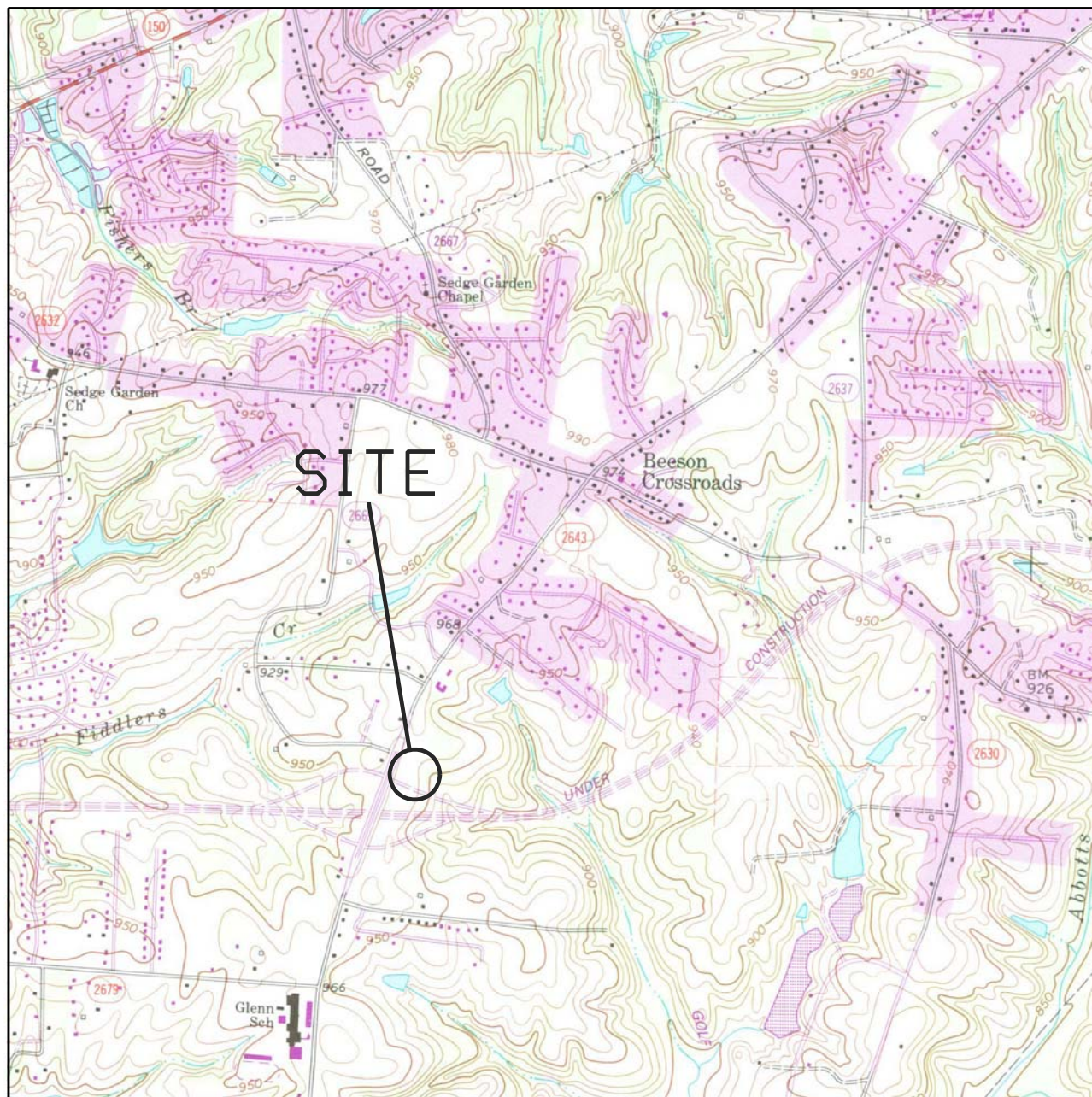
LOCATION	DEPTH (ft)	FID READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	ASSUMED ACTION LEVEL (mg/kg)
TH-1	0 - 2	2.62	TH-1	DRO (BQL) GRO (BQL)	10 10
	2 - 4	2.19			
	4 - 6	2.27			
	6 - 8	2.34			
	8 - 10	2.17			
	10 - 12	1.52			
	12 - 14	1.67			
TH-2	0 - 2	2.74			
	2 - 4	2.97			
	4 - 6	2.73			
	6 - 8	2.80			
	8 - 10	2.51			
	10 - 12	2.37			
	12 - 14	3.13	TH-2	DRO (BQL) GRO (BQL)	10 10
TH-3	0 - 2	1.85			
	2 - 4	1.72			
	4 - 6	2.53			
	6 - 8	2.97	TH-3	DRO (BQL) GRO (BQL)	10 10
	8 - 10	2.20			
	10 - 12	2.44			
	12 - 14	2.62			
TH-4	0 - 2	2.21			
	2 - 4	3.06	TH-4	DRO (BQL) GRO (BQL)	10 10
	4 - 6	2.92			
	6 - 8	1.58			
	8 - 10	2.06			
	10 - 12	2.16			
	12 - 14	3.04			
14 - 15	3.00				

Soil samples were collected on May 26, 2010.

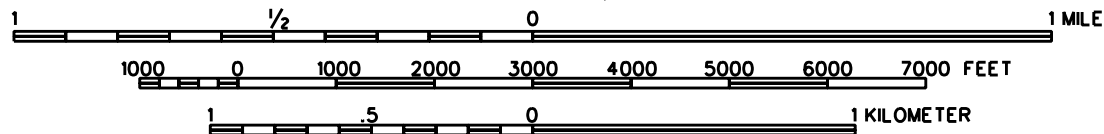
DRO - Diesel range organics.  
 GRO - Gasoline range organics.  
 BQL - Below quantitation limit.  
 ppm - parts per million.  
 mg/kg - milligrams per kilogram.



## **FIGURES**



SCALE 1:24,000



SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: KERNERSVILLE, NC (REV 1994)

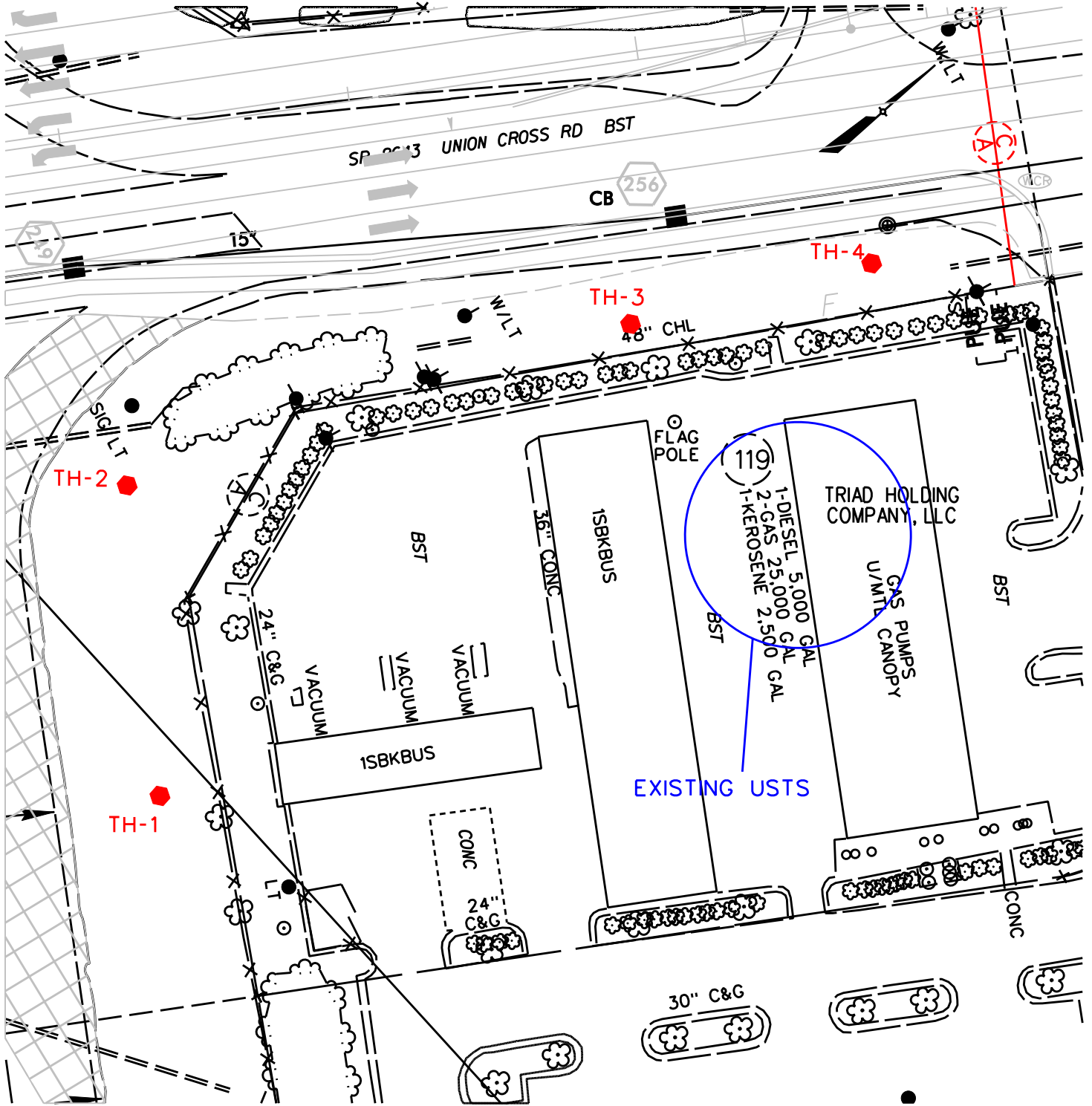


**FIGURE 1**  
**VICINITY MAP**

TRIAD HOLDING COMPANY PROPERTY (PARCEL •119)  
KERNERSVILLE, FORSYTH COUNTY NORTH CAROLINA

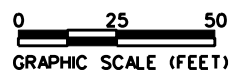
MAY 2010

60155373



**LEGEND**

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



**FIGURE 2**  
**SITE MAP**

TRIAD HOLDING COMPANY PROPERTY (PARCEL #119)  
KERNERSVILLE, FORSYTH COUNTY, NORTH CAROLINA

MAY 2010

60155373



**ATTACHMENT A**

**GEOPHYSICAL INVESTIGATION REPORT**

*EM61 SURVEYS*

**TRIAD HOLDING COMPANY, LLC PROPERTY  
(PARCEL 119)**

**Forsyth County, North Carolina**

**June 7, 2010**

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

**Prepared by: \_\_\_\_\_  
Mika Trifunovic**

**Reviewed by: \_\_\_\_\_  
Douglas Canavello, PG**

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

**AECOM Environment**  
**GEOPHYSICAL INVESTIGATION REPORT**  
**TRIAD HOLDING COMPANY, LLC PROPERTY**  
**(PARCEL 119)**  
**Forsyth County, North Carolina**

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4.0 SUMMARY & CONCLUSIONS .....		3
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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 geophysical investigations for AECOM Environment across the proposed Right-of-Way (ROW) portion of the Triad Holding Company, LLC property (Parcel 119) located at the northeast corner of the Interstate 40 west bound exit ramp and Union Cross Road in Forsyth County, North Carolina. The geophysical survey area consists of the ditch portion of the property located immediately along Union Cross Road and the shoulder area of the road located along the I-40 west bound exit ramp. The survey area has a total length and width of 600 feet and 40 feet, respectively.

The geophysical investigation was conducted on May 13, 2010 to determine if unknown, metallic USTs were present beneath the proposed ROW area. 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 northern portion of the geophysical survey area at the Triad Holding Company, LLC property (Parcel 119) 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 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. All of the EM61 data were digitally collected at 0.8 foot intervals along northerly-southerly or easterly-westerly, parallel survey lines spaced five feet apart. All of the data were downloaded to a computer

and reviewed in the office using the Geonics DAT61W and Surfer for Windows Version 7.0 software programs.

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 drums and USTs and ignore the smaller insignificant metal objects.

Preliminary geophysical results obtained from Parcel 119 were reported to Mr. Branson during the week of May 17, 2010.

### **3.0 DISCUSSION OF RESULTS**

The linear, EM61 bottom coil anomaly intersecting grid coordinates X=45 Y=40 and the bottom coil anomalies intersecting grid coordinates X=37 Y=180 and X=40 Y=360 are probably in response to metallic culverts or conduits that run parallel to Union Cross Road. The EM61 bottom coil anomaly centered near grid coordinates X=30 Y=237 is probably in response to a miscellaneous metal object or debris. The bottom coil anomalies centered near grid coordinates X=20 Y=80, X=93 Y=27, X=197 Y=35, and X=307 Y=20 are probably in response to the metallic road signs. The bottom coil anomalies centered near grid coordinates X=23 Y=347 and X=47 Y=370 are probably in response to a storm sewer manhole cover and several water meter covers. The remaining portions of the survey area did not record EM61 bottom coil anomalies.

All of the EM61 differential anomalies recorded at Parcel 119 are probably in response to the road signs and manhole cover. Due to the absence of additional differential anomalies, ground penetrating radar surveys were not conducted at this site and the EM61 results suggest that the surveyed portion of the site does not contain metallic USTs.

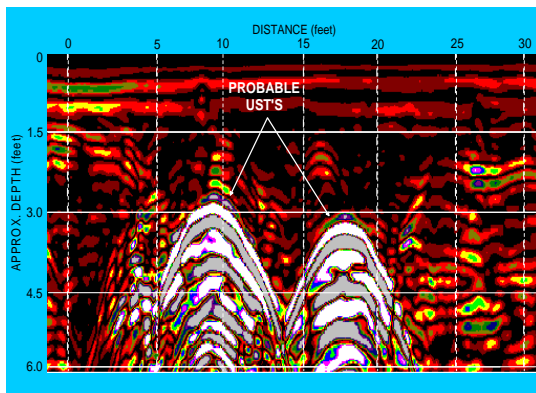
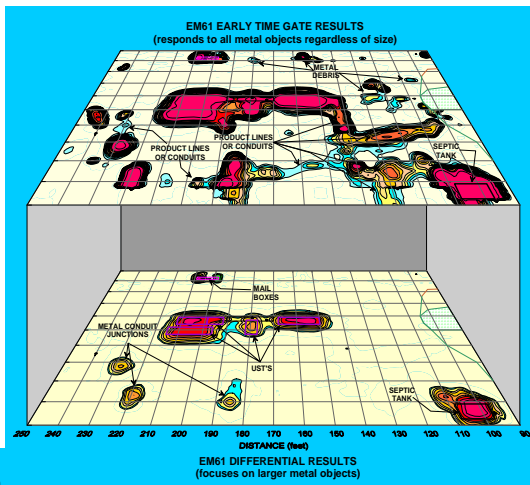
#### **4.0 SUMMARY & CONCLUSIONS**

Our evaluation of the EM61 data collected across the proposed ROW area of the Triad Holding Company, LLC property (Parcel 119) 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 bottom coil anomaly intersecting grid coordinates X=45 Y=40 and the bottom coil anomalies intersecting grid coordinates X=37 Y=180 and X=40 Y=360 are probably in response to metallic culverts or conduits that run parallel to Union Cross Road.
- The remaining EM61 anomalies are probably in response to known objects such as road signs, water meter covers and a manhole cover. Therefore, the EM61 survey suggests that the proposed ROW area does not contain buried metallic USTs.

#### **5.0 LIMITATIONS**

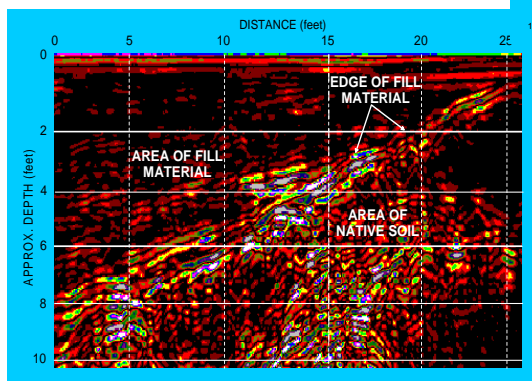
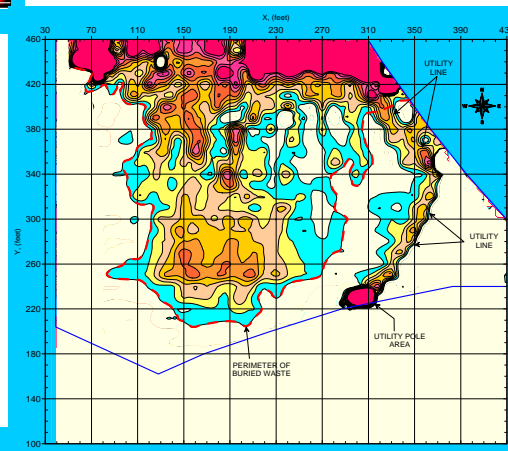
EM61 surveys have been performed and this report prepared for AECOM Environment in accordance with generally accepted guidelines for EM61 surveys. It is generally recognized that the results of the EM61 are non-unique and may not represent actual subsurface conditions. The EM61 results obtained for this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



## FIGURES

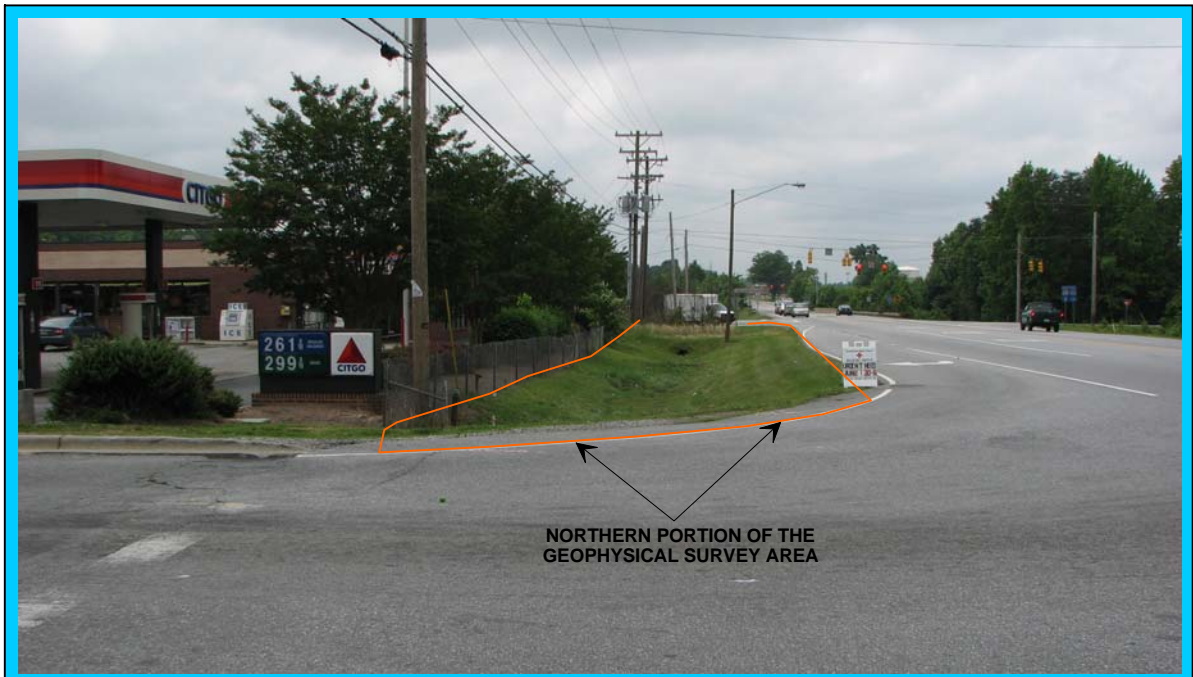
(on the following pages)

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 proposed Right-of-Way portion of Parcel 119 on May 13, 2010.



NORTHERN PORTION OF THE  
GEOPHYSICAL SURVEY AREA

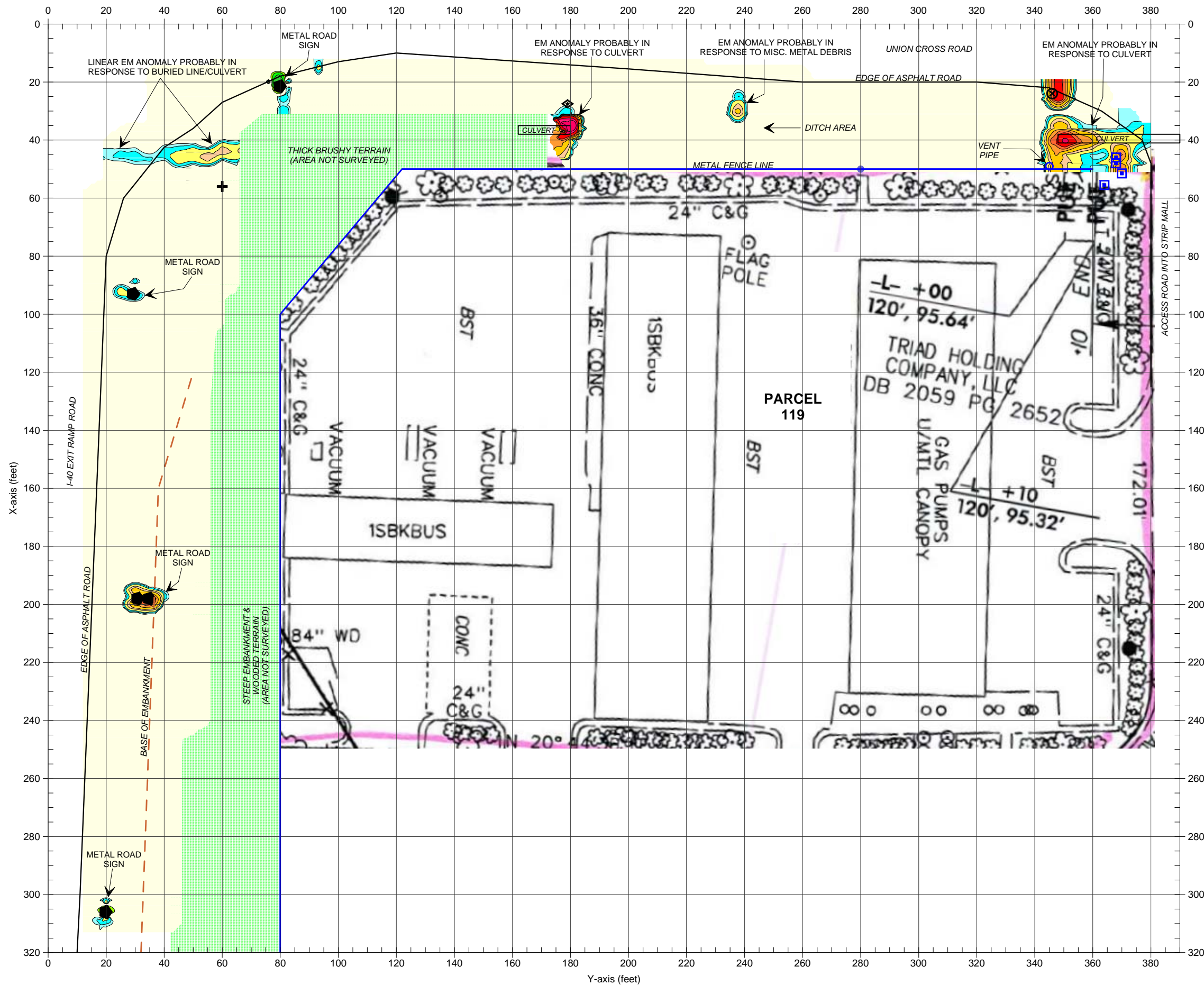
The orange polyline in the photograph shows the perimeter of the northern portion of the geophysical survey area at Parcel 119 located at the intersection of I-40 and Union Cross Road in Forsyth County, North Carolina. The photograph is viewed in a southerly direction.



CLIENT	AECOM ENVIRONMENT	DATE	05/26/10	DRAWN	MJD
SITE	TRIAD HOLDING COMPANY PROPERTY (PARCEL 119)	LAY		CPND	
CITY	FORSYTH COUNTY	STATE	NORTH CAROLINA	ENGR	
TITLE	GEOPHYSICAL RESULTS	NO.	2010-109	PROJ	

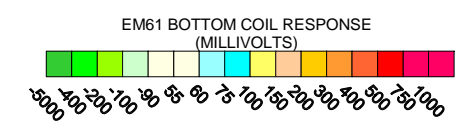
GEOPHYSICAL EQUIPMENT  
& SITE PHOTOGRAPHS





**LEGEND**

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS OR Y-AXIS TRENDING LINES SPACED 5 FEET APART
- WOODED & BRUSHY TERRAIN
- DRAIN PIPE
- GUY WIRE
- METAL UTILITY/STORM SEWER COVER
- ROAD SIGN
- STORM SEWER GRATE
- UTILITY POLE
- VENT PIPE
- WATER METER BOX



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 EM metal detection data were collected on May 13, 2010 using a Geonics EM61 instrument. Due to an absence of EM61 differential anomalies, ground penetrating radar (GPR) surveys were not conducted at this site.

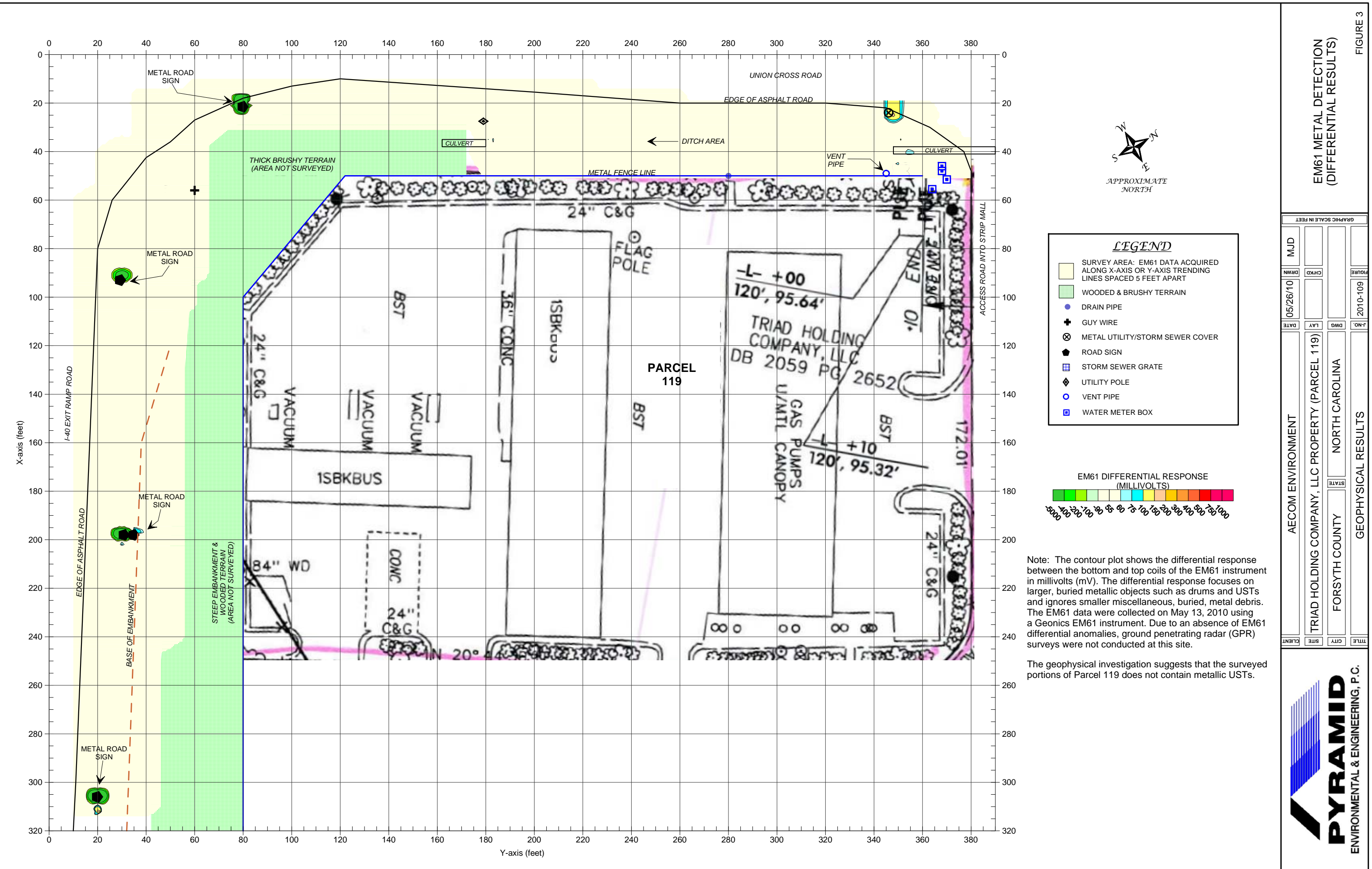
The geophysical investigation suggests that the surveyed portions of Parcel 119 does not contain metallic USTs.

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

FIGURE 2

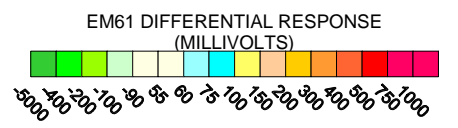
DATE	05/26/10	MJD		FIGURE	2010-109
CLIENT	AECOM ENVIRONMENT	SITE	TRIAD HOLDING COMPANY, LLC PROPERTY (PARCEL 119)	CITY	FORSYTH COUNTY
STATE			NORTH CAROLINA	TITLE	GEOPHYSICAL RESULTS

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



**LEGEND**

- SURVEY AREA: EM61 DATA ACQUIRED ALONG X-AXIS OR Y-AXIS TRENDING LINES SPACED 5 FEET APART
- WOODED & BRUSHY TERRAIN
- DRAIN PIPE
- GUY WIRE
- METAL UTILITY/STORM SEWER COVER
- ROAD SIGN
- STORM SEWER GRATE
- UTILITY POLE
- VENT PIPE
- WATER METER BOX



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 data were collected on May 13, 2010 using a Geonics EM61 instrument. Due to an absence of EM61 differential anomalies, ground penetrating radar (GPR) surveys were not conducted at this site.

The geophysical investigation suggests that the surveyed portions of Parcel 119 does not contain metallic USTs.

**EM61 METAL DETECTION (DIFFERENTIAL RESULTS)**

FIGURE 3

DATE	05/26/10	MJD		FIGURE	2010-109
CLIENT	AECOM ENVIRONMENT	SITE	TRIAD HOLDING COMPANY, LLC PROPERTY (PARCEL 119)	CITY	NORTH CAROLINA
			FORSYTH COUNTY		GEOPHYSICAL RESULTS

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

**ATTACHMENT B**

# TEST BORING REPORT

**PROJECT** TRIAD HOLDING COMPANY PROPERTY (PARCEL 119)  
**CLIENT** NCDOT (WBS 40278.1.1)  
**PROJECT NUMBER** 60155373 (U-4909)  
**CONTRACTOR** AED  
**EQUIPMENT** GEOPROBE

**BORING NUMBER** TH-1  
**PAGE** 1  
**ELEVATION** \_\_\_\_\_  
**DATE** 5/26/2010  
**DRILLER** KELLY  
**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5.0			2.62		MEDIUM TO REDDISH BROWN SILT/CLAY, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			2.19		AS ABOVE, DRY, NO ODOR.
			2.27		AS ABOVE, DRY, NO ODOR.
10.0			2.34		AS ABOVE, DRY, NO ODOR.
			2.17		AS ABOVE, DRY, NO ODOR.
			1.52		AS ABOVE TO 11 FEET. BECOMES MOTTLED PINK AND WHITE MEDIUM-GRAINED SAND, DRY, NO ODOR.
15.0			1.67		AS ABOVE, DRY, NO ODOR.
			1.31		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					



# TEST BORING REPORT

**PROJECT** TRIAD HOLDING COMPANY PROPERTY (PARCEL 119)  
**CLIENT** NCDOT (WBS 40278.1.1)  
**PROJECT NUMBER** 60155373 (U-4909)  
**CONTRACTOR** AED  
**EQUIPMENT** GEOPROBE

**BORING NUMBER** TH-2  
**PAGE** 1  
**ELEVATION** \_\_\_\_\_  
**DATE** 5/26/2010  
**DRILLER** KELLY  
**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5.0			2.74		MEDIUM TO REDDISH BROWN SILT/CLAY, DRY, NO ODOR.
			2.97		AS ABOVE, DRY, NO ODOR.
10.0			2.73		AS ABOVE, DRY, NO ODOR.
			2.80		AS ABOVE, DRY, NO ODOR.
15.0			2.51		MOTTLED PINK AND WHITE MEDIUM-GRAINED SAND, DRY, NO ODOR.
			2.37		AS ABOVE, DRY, NO ODOR.
20.0			3.13		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			2.80		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.



# TEST BORING REPORT

**PROJECT** TRIAD HOLDING COMPANY PROPERTY (PARCEL 119)  
**CLIENT** NCDOT (WBS 40278.1.1)  
**PROJECT NUMBER** 60155373 (U-4909)  
**CONTRACTOR** AED  
**EQUIPMENT** GEOPROBE

**BORING NUMBER** TH-3  
**PAGE** 1  
**ELEVATION** \_\_\_\_\_  
**DATE** 5/26/2010  
**DRILLER** KELLY  
**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5.0			1.85		2" TOPSOIL, MEDIUM TO REDDISH BROWN SILT/CLAY, DRY, NO ODOR.
			1.72		AS ABOVE, DRY, NO ODOR.
			2.53		AS ABOVE, DRY, NO ODOR.
10.0			2.97		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			2.20		AS ABOVE, DRY, NO ODOR.
			2.44		AS ABOVE, DRY, NO ODOR.
15.0			2.62		AS ABOVE, DRY, NO ODOR.
			1.96		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					



# TEST BORING REPORT

**PROJECT** TRIAD HOLDING COMPANY PROPERTY (PARCEL 119)  
**CLIENT** NCDOT (WBS 40278.1.1)  
**PROJECT NUMBER** 60155373 (U-4909)  
**CONTRACTOR** AED  
**EQUIPMENT** GEOPROBE

**BORING NUMBER** TH-4  
**PAGE** 1  
**ELEVATION** \_\_\_\_\_  
**DATE** 5/26/2010  
**DRILLER** KELLY  
**PREPARED BY** BRANSON

DEPTH IN FEET	CASING BLOWS FOOT	BLOWS PER 6 INCHES	OVA (ppm)	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
5.0			2.21		2" TOPSOIL, MEDIUM TO REDDISH BROWN SILT/CLAY, DRY, NO ODOR.
			3.06		AS ABOVE, DRY, NO ODOR. SUBMIT TO LABORATORY FOR ANALYSIS.
			2.92		AS ABOVE, DRY, NO ODOR.
10.0			1.58		AS ABOVE, DRY, NO ODOR.
			2.06		AS ABOVE, DRY, NO ODOR.
			2.16		AS ABOVE, DRY, NO ODOR.
15.0			3.04		MOTTLED MEDIUM BROWN AND TAN SILT/SAND, DRY, NO ODOR.
			3.00		AS ABOVE, DRY, NO ODOR.
					BORING TERMINATED AT 15 FEET. NO GROUNDWATER ENCOUNTERED.
20.0					



**ATTACHMENT C**



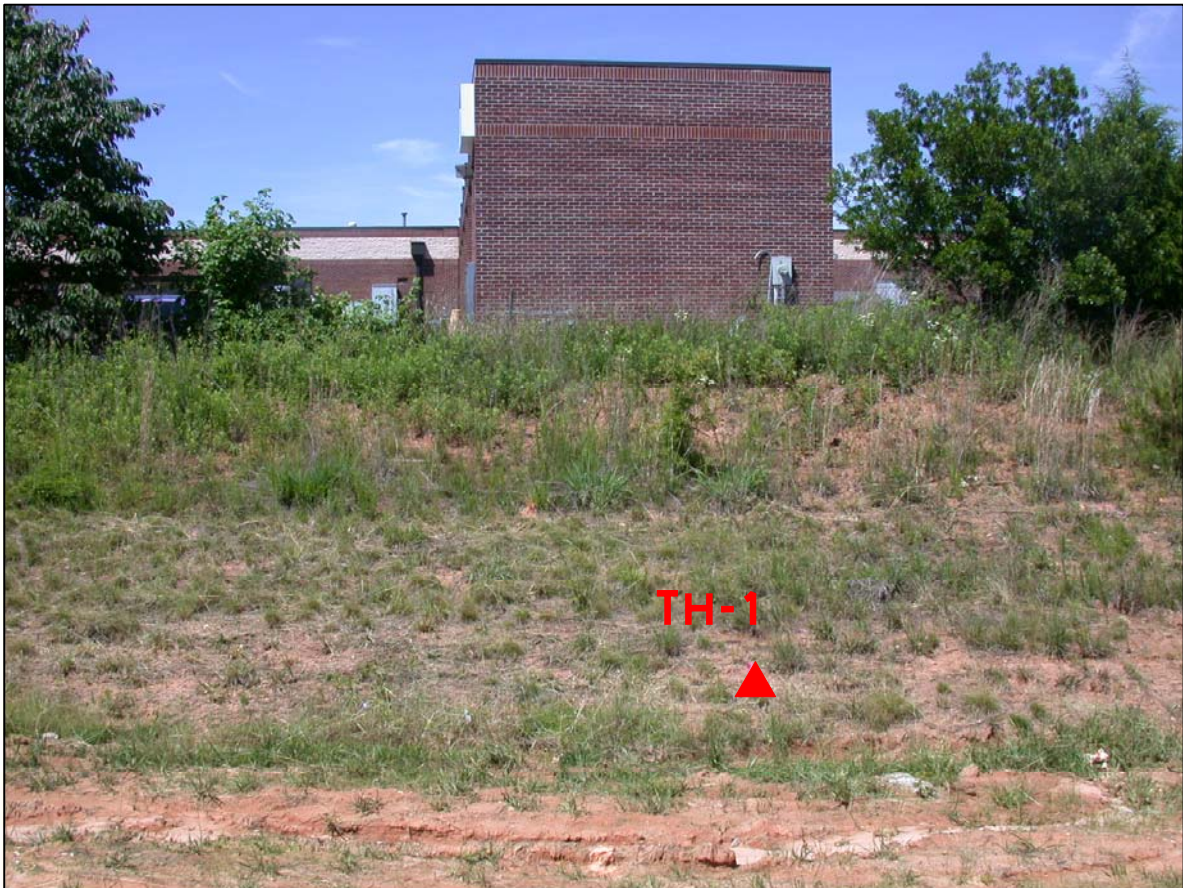


PHOTO 1 - BORING IN R/W LOOKING NORTHEAST



PHOTO 2 - BORING IN R/W LOOKING NORTHEAST



PHOTO 3 - BORING WITHIN R/W LOOKING EAST



PHOTO 4 - BORING WITHIN PROPOSED R/W LOOKING EAST

**ATTACHMENT D**

AECOM (Earth Tech) NCDOT Proj.  
Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
Project No.: WBS#40278.1.1  
Lab Submittal Date: 05/28/2010  
Prism Work Order: 0050750

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

**PRISM LABORATORIES, INC.**



President/Project Manager



Reviewed By

**Data Qualifiers Key Reference:**

BRL Below Reporting Limit  
MDL Method Detection Limit  
RPD Relative Percent Difference  
\* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
TH-1	0050750-01	Solid	05/26/10	05/28/10
TH-2	0050750-02	Solid	05/26/10	05/28/10
TH-3	0050750-03	Solid	05/26/10	05/28/10
TH-4	0050750-04	Solid	05/26/10	05/28/10

Samples received in good condition at 5.8 degrees C unless otherwise noted.

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
Project No.: WBS#40278.1.1  
Sample Matrix: Solid

Client Sample ID: TH-1  
Prism Sample ID: 0050750-01  
Prism Work Order: 0050750  
Time Collected: 05/26/10 15:30  
Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Diesel Range Organics by GC/FID</b>									
Diesel Range Organics	BRL	mg/kg dry	9.0	1.5	1	*8015C	6/5/10 4:19	JMV	P0F0102
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			87 %		49-124	
<b>Gasoline Range Organics by GC/FID</b>									
Gasoline Range Organics	BRL	mg/kg dry	5.4	0.70	50	*8015C	6/3/10 20:11	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			106 %		55-129	
<b>General Chemistry Parameters</b>									
% Solids	77.8	% by Weight	0.100	0.100	1	*SM2540 G	6/2/10 18:00	PJF	P0F0067

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
Project No.: WBS#40278.1.1  
Sample Matrix: Solid

Client Sample ID: TH-2  
Prism Sample ID: 0050750-02  
Prism Work Order: 0050750  
Time Collected: 05/26/10 15:45  
Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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### Diesel Range Organics by GC/FID

Diesel Range Organics	BRL	mg/kg dry	8.1	1.3	1	*8015C	6/5/10 4:55	JMV	P0F0102
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			92 %		49-124	

### Gasoline Range Organics by GC/FID

Gasoline Range Organics	BRL	mg/kg dry	5.5	0.72	50	*8015C	6/3/10 20:43	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			100 %		55-129	

### General Chemistry Parameters

% Solids	86.6	% by Weight	0.100	0.100	1	*SM2540 G	6/2/10 18:00	PJF	P0F0067
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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
 Project No.: WBS#40278.1.1  
 Sample Matrix: Solid

Client Sample ID: TH-3  
 Prism Sample ID: 0050750-03  
 Prism Work Order: 0050750  
 Time Collected: 05/26/10 16:10  
 Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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**Diesel Range Organics by GC/FID**

Diesel Range Organics	BRL	mg/kg dry	9.6	1.5	1	*8015C	6/5/10 5:30	JMV	P0F0102
			Surrogate	Recovery			Control Limits		
			o-Terphenyl	86 %			49-124		

**Gasoline Range Organics by GC/FID**

Gasoline Range Organics	BRL	mg/kg dry	5.0	0.65	50	*8015C	6/3/10 21:14	HPE	P0F0072
			Surrogate	Recovery			Control Limits		
			a,a,a-Trifluorotoluene	103 %			55-129		

**General Chemistry Parameters**

% Solids	73.0	% by Weight	0.100	0.100	1	*SM2540 G	6/2/10 18:00	PJF	P0F0067
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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
 Project No.: WBS#40278.1.1  
 Sample Matrix: Solid

Client Sample ID: TH-4  
 Prism Sample ID: 0050750-04  
 Prism Work Order: 0050750  
 Time Collected: 05/26/10 16:40  
 Time Submitted: 05/28/10 08:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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**Diesel Range Organics by GC/FID**

Diesel Range Organics	BRL	mg/kg dry	10	1.6	1	*8015C	6/5/10 6:05	JMV	P0F0102
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			77 %		49-124	

**Gasoline Range Organics by GC/FID**

Gasoline Range Organics	BRL	mg/kg dry	5.7	0.75	50	*8015C	6/3/10 22:49	HPE	P0F0072
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			111 %		55-129	

**General Chemistry Parameters**

% Solids	69.6	% by Weight	0.100	0.100	1	*SM2540 G	6/2/10 18:00	PJF	P0F0067
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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.

Project No: WBS#40278.1.1

Prism Work Order: 0050750

Time Submitted: 5/28/10 8:15:00AM

**Gasoline Range Organics by GC/FID - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0F0072 - 5035</b>										
<b>Blank (P0F0072-BLK1)</b>										
Prepared & Analyzed: 06/03/10										
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	5.05		mg/kg wet	5.00		101	55-129			
<b>LCS (P0F0072-BS1)</b>										
Prepared & Analyzed: 06/03/10										
Gasoline Range Organics	45.8	5.0	mg/kg wet	50.0		92	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.55		mg/kg wet	5.00		111	55-129			
<b>LCS Dup (P0F0072-BSD1)</b>										
Prepared & Analyzed: 06/03/10										
Gasoline Range Organics	46.2	5.0	mg/kg wet	50.0		92	67-116	1	200	
Surrogate: a,a,a-Trifluorotoluene	5.50		mg/kg wet	5.00		110	55-129			

AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT - Triad Holding Co.  
 Project No: WBS#40278.1.1

Prism Work Order: 0050750  
 Time Submitted: 5/28/10 8:15:00AM

**Diesel Range Organics by GC/FID - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0F0102 - 3545A</b>										
<b>Blank (P0F0102-BLK1)</b> Prepared: 06/03/10 Analyzed: 06/04/10										
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: <i>o</i> -Terphenyl	1.25		mg/kg wet	1.60		78	49-124			
<b>LCS (P0F0102-BS1)</b> Prepared: 06/03/10 Analyzed: 06/04/10										
Diesel Range Organics	60.1	7.0	mg/kg wet	79.9		75	55-109			
Surrogate: <i>o</i> -Terphenyl	1.66		mg/kg wet	1.60		104	49-124			
<b>LCS Dup (P0F0102-BSD1)</b> Prepared: 06/03/10 Analyzed: 06/04/10										
Diesel Range Organics	72.4	7.0	mg/kg wet	80.0		91	55-109	19	200	
Surrogate: <i>o</i> -Terphenyl	1.98		mg/kg wet	1.60		124	49-124			
<b>Matrix Spike (P0F0102-MS1)</b> Source: 0050750-02 Prepared: 06/03/10 Analyzed: 06/04/10										
Diesel Range Organics	80.9	8.1	mg/kg dry	92.3	BRL	88	50-117			
Surrogate: <i>o</i> -Terphenyl	2.27		mg/kg dry	1.85		123	49-124			
<b>Matrix Spike Dup (P0F0102-MSD1)</b> Source: 0050750-02 Prepared: 06/03/10 Analyzed: 06/04/10										
Diesel Range Organics	76.3	8.1	mg/kg dry	92.3	BRL	83	50-117	6	24	
Surrogate: <i>o</i> -Terphenyl	2.26		mg/kg dry	1.85		122	49-124			

**Sample Extraction Data**

**Prep Method: 3545A**

Lab Number	Batch	Initial	Final	Date
0050750-01	P0F0102	24.99 g	1 mL	06/03/10
0050750-02	P0F0102	25.05 g	1 mL	06/03/10
0050750-03	P0F0102	25.1 g	1 mL	06/03/10
0050750-04	P0F0102	24.99 g	1 mL	06/03/10

**Prep Method: 5035**

Lab Number	Batch	Initial	Final	Date
0050750-01	P0F0072	6 g	5 mL	06/03/10
0050750-02	P0F0072	5.24 g	5 mL	06/03/10
0050750-03	P0F0072	6.89 g	5 mL	06/03/10
0050750-04	P0F0072	6.26 g	5 mL	06/03/10

**NO PREP**

Lab Number	Batch	Initial	Final	Date
0050750-01	P0F0067	30 g	30 mL	06/02/10
0050750-02	P0F0067	30 g	30 mL	06/02/10
0050750-03	P0F0067	30 g	30 mL	06/02/10
0050750-04	P0F0067	30 g	30 mL	06/02/10

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Full-Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543  
 Phone: 704/529-6364 • Fax: 704/525-0409

Client Company Name: ACE CON

Report To/Contact Name: MIKE BRANTON

Reporting Address: 701 Corporate Center Dr  
541 W 475 Raleigh NC 27607

Phone: 919 854 6239 Fax: (919) 919 854 6239

Email: (No) Email Address Mike Branton@acecon.com

EDD Type: PDF  Excel  Other

Site Location Name: TRIAD HOBBING CO.

Site Location Physical Address: Keeneville

# CHAIN OF CUSTODY RECORD

PAGE OF QUOTE # TO ENSURE PROPER BILLING:

Project Name: NCROT - TRIAD HOBBING CO.

Short Hold Analysis: (Yes)  (No)  UST Project:  (No)

\*Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements

Invoice To: NCROT

Address:

Purchase Order No./Billing Reference: 6055# 40278.1.1

Requested Due Date  1 Day  2 Days  3 Days  4 Days  5 Days

"Working Days"  6-9 Days  Standard 10 days  Rush Work Must Be Pre-Approved

Samples received after 15:00 will be processed next business day.

Turnaround time is based on business days, excluding weekends and holidays.

(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

**LAB USE ONLY**

Samples IN CONTACT upon arrival? YES  NO  N/A

Received ON WET ICE? Temp 518

PROPER PRESERVATIVES indicated?

Received WITHIN HOLDING TIMES?

CUSTOMER SEALS INTACT?

VOLETTILES rec'd/W/OUT HEADSPACE?

PROPER CONTAINERS used?

**TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL**

Certification: NELAC  USACE  FL  NC

SC  OTHER  N/A

Water Chlorinated: YES  NO

Sample Iced Upon Collection: YES  NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
TH-1	5/26/10	1530	Soilc	CG	4	4/voat	MeOH	<u>Agp/680</u>	<u>4oz, 207</u>	01
TH-2	5/26/10	1545	Soilc	CG	4	4/voat	MeOH			02
TH-3	5/26/10	1616	Soilc	CG	4	4/voat	MeOH			03
TH-4	5/26/10	1640	Soilc	CG	4	4/voat	MeOH			04

**PRESS DOWN FIRMLY - 3 COPIES**

Sampler's Signature: M Branton Sampled By (Print Name): M. Branton Affiliation: ACECON

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By (Signature): M Branton Date: 05/27/10 Military/Hours: 1100

Relinquished By (Signature): Keeneville Date: 5/27/10 Military/Hours: 1230

Relinquished By (Signature): Keeneville Date: 5/28/10 Military/Hours: 815

Method of Shipment:  Fed Ex  UPS  Hand-delivered  Prism Field Service  Other

Additional Comments: Invoice NCRAT  
under Blanket PO

**PRISM USE ONLY**

Site Arrival Time: \_\_\_\_\_

Site Departure Time: \_\_\_\_\_

Field Tech Fee: \_\_\_\_\_

Mileage: \_\_\_\_\_

**SEE REVERSE FOR TERMS & CONDITIONS**

Page 9 of 9

ORIGINAL

\*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)