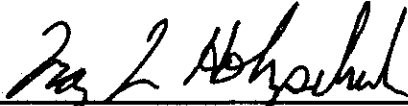




**NC Department of Transportation
Preliminary Site Assessment
State Project: U-3812
WBS Element: 34977.1.1**

**Paddy Mountain Lumber Inc Property
Parcel #4
May 5, 2010**

**AMEC Earth and Environmental, Inc. of North Carolina
AMEC Project: 562113812**



Troy Holzschuh
Engineering Technician



Helen P. Corley, L.G.
Senior Project Manager





**NC Department of Transportation
Preliminary Site Assessment
State Project: U-3812
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Figure 2	Site Map with Sample Locations
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Figure 4	Site Map with Potential Area of Soil Contamination

APPENDICES

Appendix A	Photo Log
Appendix B	Boring and Well Construction Logs
Appendix C	Geophysical Report
Appendix D	Laboratory Analytical Data

1.0 INTRODUCTION

In accordance with the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated February 19, 2010, AMEC Earth and Environmental, Inc. of North Carolina (AMEC) has performed a Preliminary Site Assessment (PSA) for the Paddy Mountain Lumber Inc Property (the Site) to be effected by a road improvement project along NC Highway (Hwy) 88. The Site is abandoned and is identified as Parcel #4 within the NCDOT U-3812 design project. The property, located on the west side of NC Hwy 194 near the intersection with NC Hwy 88, is in Jefferson of Ashe County, North Carolina. The investigation was conducted in accordance with AMEC's Technical and Cost proposal dated March 5, 2010.

NCDOT contracted AMEC to perform a PSA on the Paddy Mountain Lumber Inc Property due to the observation of an underground storage tank (UST) on the property. The property is currently vacant. The PSA was performed to determine if soils have been impacted by petroleum compounds as a result of past or present uses of the property within the proposed expanded right-of-way (ROW). The investigation was specifically completed to determine the presence or absence of petroleum hydrocarbons along the proposed ROW.

The following report describes our field investigations and results of chemical analyses. It includes the evaluation of the analytical data with regards to the presence or absence of soil contamination within the proposed ROW and estimates the extent of soil contamination.

1.1 Site Location and History

The Paddy Mountain Lumber Inc Property is located on the southwestern side of NC Hwy 194, approximately 300 feet southwest of the intersection of NC Hwy 194 and NC Hwy 88 in Jefferson, Ashe County, North Carolina. It is located within the Sedimentary and Metamorphic sediments of the Blue Ridge Belt Physiographic Province of western North Carolina. Figure 1 shows the site location and vicinity.

AMEC studied the NCDENR UST Database for Incident Management and Registered Facilities and did not find any incidents reported for this site.

1.2 Site Description

Two two-story brick buildings, one single story building and multiple covered structures occupy the Site. The proposed road widening will traverse the entire property of Parcel #4. One UST exists, on the east side of the building 30 feet from the southeast corner of the building. No monitoring wells are located at this facility. Appendix A includes a photo log for Site 1.

The properties North and South of the Site are residential homes. Across Hwy 194 to the east is a parcel owned by Paddy Mountain Lumber Company. West of the Site is a wooded area.

2.0 GEOLOGY

2.1 Regional Geology

The Paddy Mountain Lumber Company Property is located within the Ashe Metamorphic Suite and Tallulah Falls Formation group of the Blue Ridge Belt Physiographic Province of western North Carolina. The Ashe Metamorphic Suite and Tallulah Falls Formation group is amphibolite with intrusive pegmatites.

2.2 Site Geology

Site geology was observed through the sampling of 13 shallow direct push probe soil borings (SB) onsite. Borings generally extended to a total depth of 10 feet below ground surface (bgs). Soils generally consisted of yellowish tan to brown, well sorted clayey silt. Boring logs are presented in Appendix B.

Saturated conditions (ground water) were typically encountered from 8.5 feet (ft) below ground surface (bgs) near the southern parcel border in P4-SB1 to 5 ft bgs at the northern parcel edge in P4-SB13. The direct push probe rig met with refusal on the dense silt in three borings (SB5, -6, -7) at depths ranging from 3 to 7 ft bgs.

3.0 FIELD ACTIVITIES

3.1 Preliminary Activities

Prior to commencing field sampling activities at the site, several tasks were accomplished in preparation for the subsurface investigation. The Health and Safety Plan (HSP) was modified to include the site-specific health and safety information necessary for the field activities. North Carolina-1-Call was contacted to facilitate the location of underground utilities in the vicinity of selected boring locations SAEDACCO (South Atlantic Environmental Drilling and Construction Co.) of Fort Mill, South Carolina was retained by AMEC to perform the direct push sampling for soil borings. AMEC coordinated with Schnabel Engineering South (Schnabel) who performed two geophysical surveys (electromagnetic and ground penetrating radar) onsite during March. The geophysical results were reviewed and discussed at the completion of each survey. Prism Laboratories, Inc. was contacted for acquisition of sample bottles. Soil boring locations were focused within the proposed expanded ROW, using a staggered soil boring placement pattern to optimize the likelihood of intercepting any potential soil contamination.

3.2 Site Reconnaissance

AMEC personnel completed site reconnaissance on February 26, 2010. During reconnaissance, the area was visually examined for the presence of any UST or areas/obstructions that could potentially affect the subsurface investigation. Boring locations were marked on March 31, 2010.

3.3 Geophysical Survey

Schnabel performed the geophysical surveys on March 15 and 23, 2010. Schnabel utilized a Geonics EM61-MK2 to perform the electromagnetic induction surveys and a Geophysical Survey Systems SIR-3000 to conduct the ground-penetrating radar (GPR) investigations. These instruments are specifically calibrated to detect metal anomalies that are buried deeply and are characteristically large. The data collected by Schnabel indicates a probable underground storage tank present approximately 30 feet north of the southeastern corner of the building on Parcel 4. The GPR data suggests that the UST is buried approximately 1.5-2.5 feet below ground surface and measures three feet in diameter by approximately five feet long (270 gallon capacity). The complete report can be found in Appendix C.

3.4 Well Survey

No well survey was performed as part of this PSA and no water supply wells were observed by AMEC on the site.

3.5 Soil Sampling

Soil boring occurred on March 31, 2010 at Parcel 4. Thirteen direct push soil borings were conducted within the proposed expanded ROW on Parcel 4. Figure 2 presents the Site Map with sample locations and identifications. These samples were located to optimize the likelihood of intercepting any potential soil contamination. The first boring (SB-1) was placed on the southern portion of the Site, within the proposed expanded ROW. Soil boring SB-2 was obtained north of SB-1. Soil borings SB-3 through SB-6 were concentrated immediately east of the UST. Subsequent boring SB-7 through SB-13 continued north toward the northern edge of the Site.

No signs of staining, odor or significant Photo Ionization Detector (PID) reading were detected in any of the soil borings. Low level PID readings were only measured in one boring, P4-SB-3 located closest to the probable UST. Soil samples were collected in accordance with EPA protocols in laboratory-supplied containers. The soil samples for Total Petroleum Hydrocarbons (TPH) –Gasoline Range Organics (GRO) analysis were collected using the 5030 prep method with methanol preservation. Samples for TPH-Diesel Range Organics (DRO) analysis were collected in 4oz. glass containers. Once placed in the containers, the samples were labeled with the sample number, time of collection, date of collection, name of the collector, and the requested analysis. The samples were packed on ice, and then hand delivered to Prism Laboratories in Charlotte, a North Carolina Certified Laboratory following proper chain-of-custody procedures.

4.0 SOIL SAMPLING RESULTS

AMEC conducted soil sampling at the Site on March 31, 2010. The purpose of the sampling was to determine if releases of petroleum hydrocarbons had occurred, and if so, to estimate the volume of soil that might require special handling during construction activities. The sampling was accomplished using direct push methods accompanied by

field screening for organic vapors with a PID. The laboratory results with PID readings are tabulated in Table 1 and shown on Figure 3.

A minimum of one soil sample was collected from each of the 13 completed soil borings from Parcel 4. Typically, when impacted soil is identified, additional soil samples are obtained. PID readings did not warrant any additional samples. Analyses of soil samples for DRO indicated one boring location with a concentration above the 10 mg/kg NCDENR Initial Action Level for TPH in soil. Sample P4-SB-3 from boring SB-3 at the 6-7 ft bgs interval was reported with 1,000 mg/kg. This boring location was near the southern end of the proposed expanded ROW. Borings SB-4, SB-5 and SB-6 were all located within close proximity of SB-3 and did not demonstrate elevated levels of DRO.

Laboratory analyses indicate one sample had concentrations of GRO that exceeded the 10 mg/kg NCDENR Initial Action Level for TPH in soil. Sample P4-SB-3 from boring SB-3 at the 6-7 ft bgs interval was reported with 20 mg/kg. This boring location was near the southern end of the proposed expanded ROW. Borings SB-4, SB-5 and SB-6 were all located within close proximity of SB-3 and did not demonstrate elevated levels of GRO.

The estimated area of petroleum impacted soil situated within the ROW has been drawn and shaded in Figure 4. The square footage of the area is 63.3 ft². Assuming an 8-ft thickness of impacted soil, which correlates with the soil column above the ground water, then 506.4 ft³ or 18.7 cubic yards of impacted soil may be intercepted within the ROW in this area during road construction activities.

Copies of the original laboratory report and chain-of-custody documentation are included as Appendix D.

5.0 CONCLUSIONS

The following conclusions are based upon AMEC's evaluation of field observations and laboratory analyses of samples collected from the Site on March 31, 2010.

- The property formerly operated as Paddy Mountain Lumber Company but is now vacant.
- An Underground Storage Tank was observed on the east side of the building.

- Laboratory analyses of soil samples confirmed one DRO concentration of >10 mg/kg NC Action Level in soil boring SB-3.
- Laboratory analyses of soil samples confirmed one GRO concentration of >10 mg/kg NC Action Level in soil boring SB-3.
- Based on the size of UST and the high DRO versus low GRO concentrations, the tank is assumed to have most recently stored fuel oil.
- An estimated 18.7 yards of petroleum- impacted soil may be intercepted during excavation activities in this area.

6.0 RECOMMENDATIONS

If NCDOT intercepts soil in the contaminated area, AMEC recommends the following action:

- Segregation during soil excavation with proper disposal of potentially petroleum-impacted soil during roadway improvement construction operations.

TABLES

Table 1
Soil Sampling Analytical Results, DRO-GRO
Parcel 4
Ashe County PSA
Jefferson, North Carolina

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH (ft bgs)	PID READINGS (ppm)	EPA Method 8015B	
				DRO (mg/kg)	GRO (mg/kg)
NC Action Levels				10	10
P4-SB-1	3/31/2010	7	0.1	<8.8	<6.3
P4-SB-2	3/31/2010	5 - 6	0.0	<9.9	<7.1
P4-SB-3	3/31/2010	6 - 7	8.3	1,000	20
P4-SB-4	3/31/2010	4 - 5	0.1	<9.2	<6.6
P4-SB-5	3/31/2010	3 - 4	0.0	<9.0	<6.5
P4-SB-6	3/31/2010	2 - 3	0.0	<9.1	<6.5
P4-SB-7	3/31/2010	4 - 5	0.0	<10	<7.3
P4-SB-8	3/31/2010	6 - 7	0.0	<9.1	<6.5
P4-SB-9	3/31/2010	4 - 5	0.0	<8.5	<6.1
P4-SB-10	3/31/2010	5 - 6	0.0	<8.8	<6.3
P4-SB-11	3/31/2010	4 - 5	0.0	<9.9	<7.1
P4-SB-12	3/31/2010	4 - 5	0.0	<8.8	<6.3
P4-SB-13	3/31/2010	4 - 5	0.0	<8.7	<6.2

NOTES:

bgs = below ground surface, ppm = parts per million

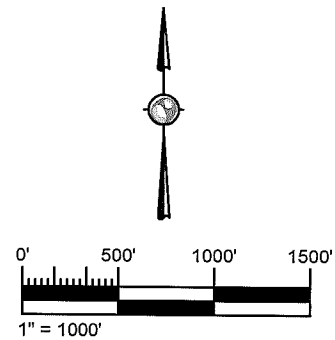
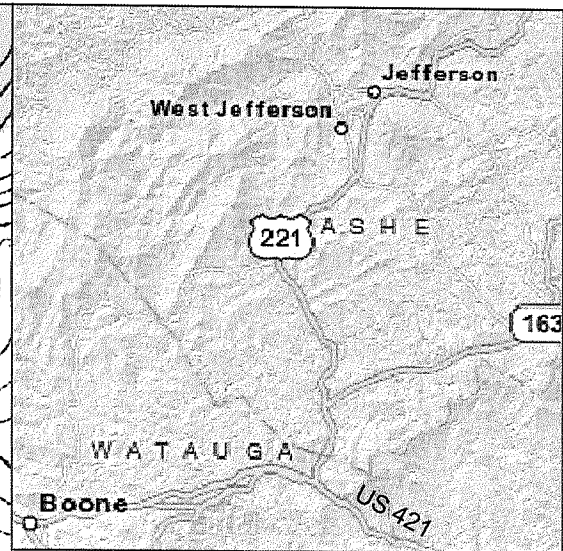
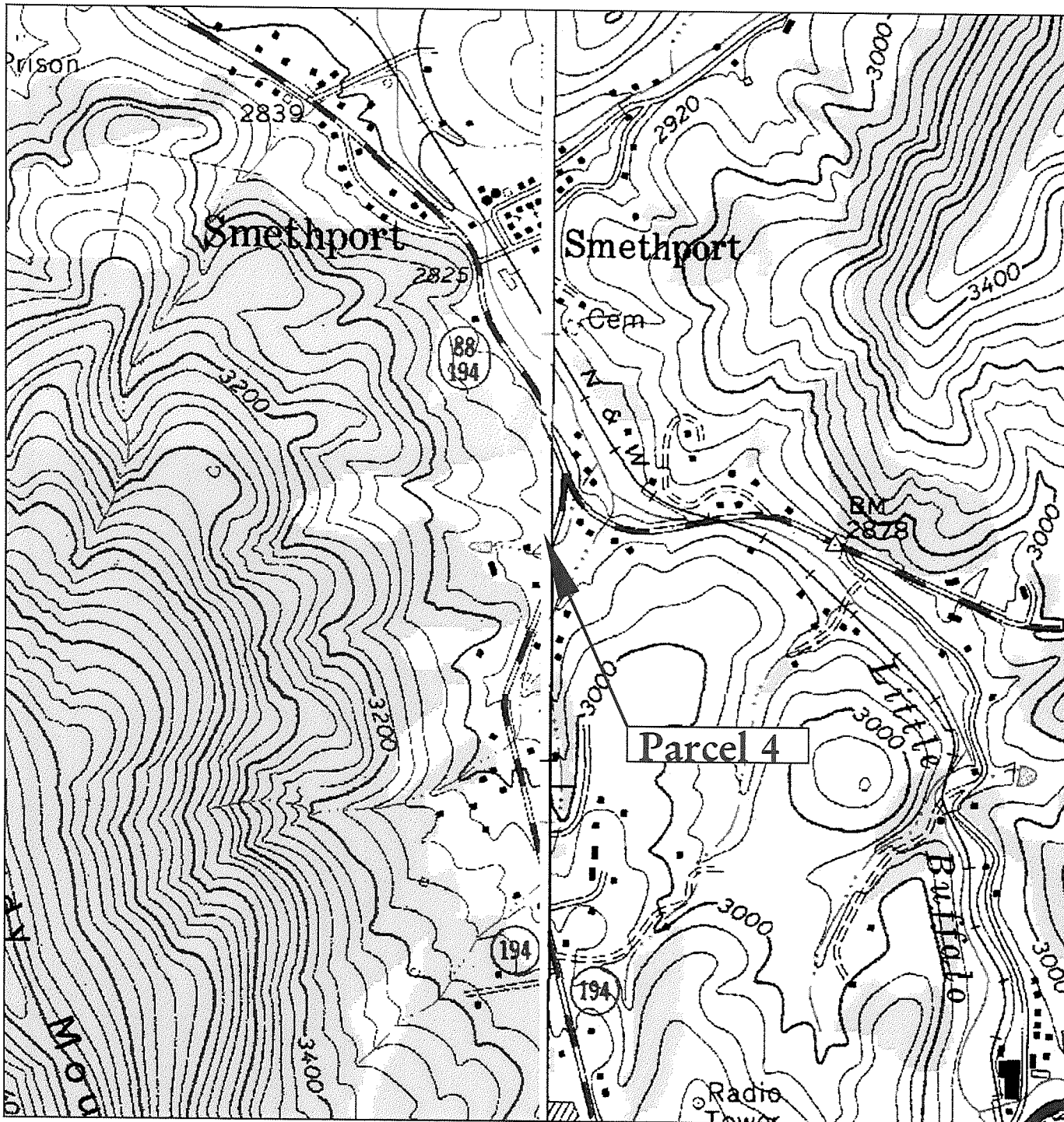
Bold Concentrations Exceed Action Levels

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

Standards derived from the North Carolina UST Section Guidelines for Assessment and Corrective Action

FIGURES



7.5 Minute Quadrangle
North Carolina, 1983
Photorevised 1993

Figure 1
Site Vicinity Map
Parcel 4

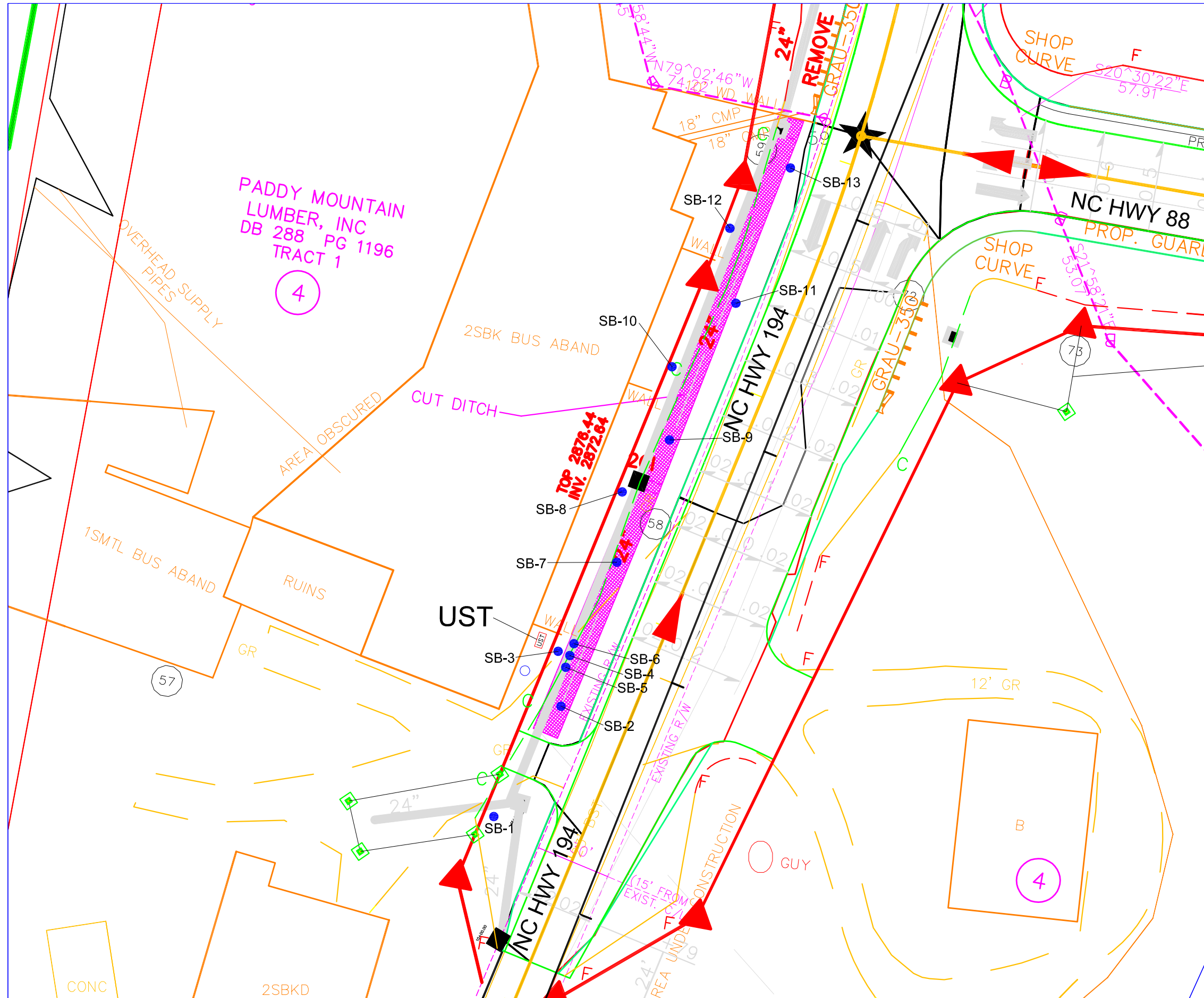
DRAWING NAME: J:\NCDOT\ASHE\FIG1 DATE: 5/12/10

SCALE: 1 INCH = 1,000 FEET DR TLH CHK HPC REV








PREPARED FOR:
NC Department of Transportation
Geotechnical Unit
WBS Element: 34977.1.1
TIP# U-3812

Prepared By: **amec** 338 North Elm Street
Suite 112
Greensboro, NC 27401
(336) 691-6396

Figure:
Figure 1



LEGEND

-  Proposed Right of Way
-  Existing Right of Way
-  Property Boundaries
-  Cut/Fill Line
-  Cut/Fill Line
-  Boring Locations
-  Proposed Hydraulic Ditch

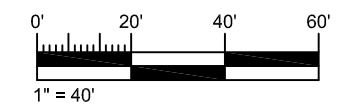
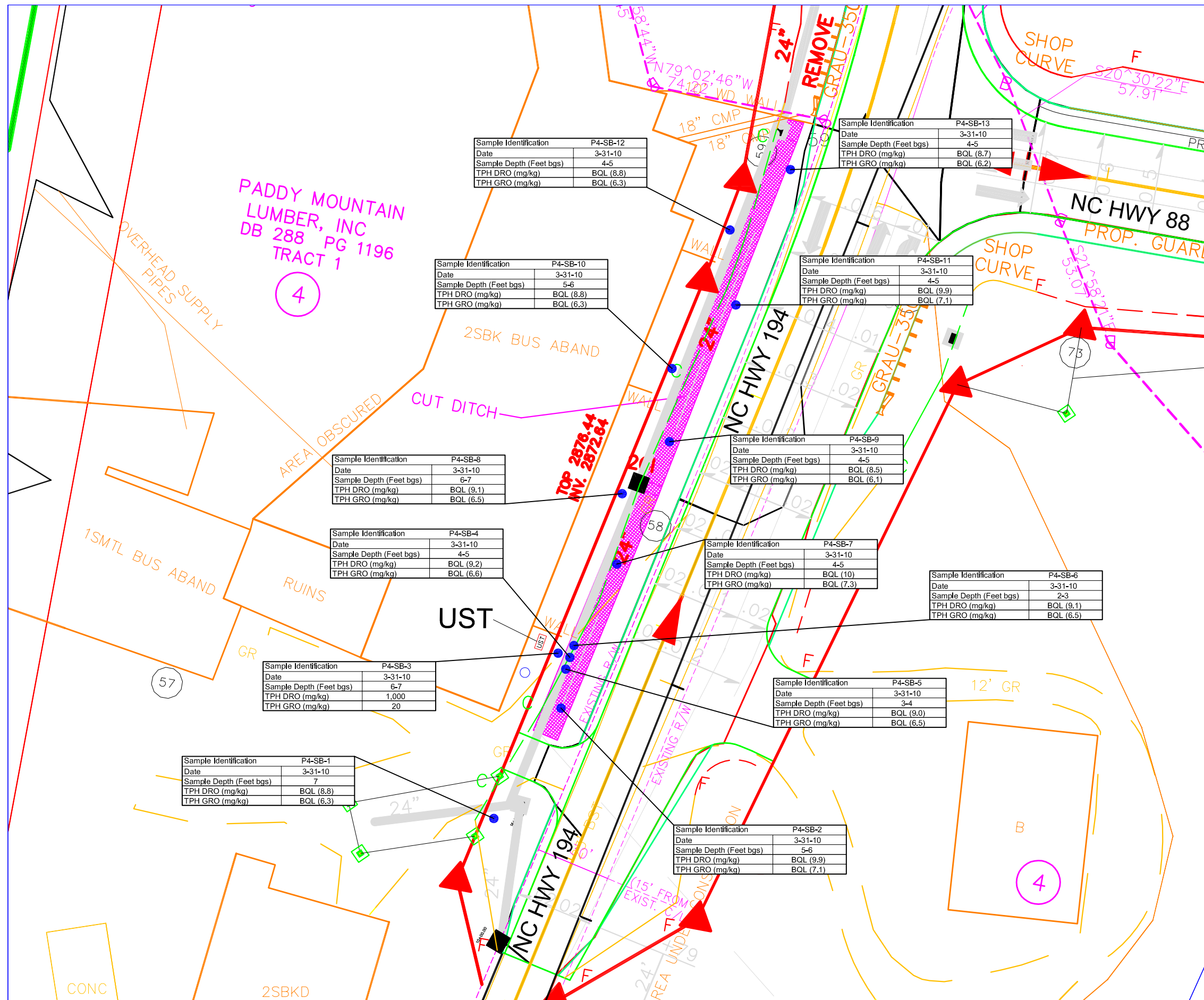


Figure 2
Site Map With Sample Locations
Parcel 4 Paddy Mountain Lumber Property

NC Department of Transportation
 Geotechnical Unit
 WBS Element: 34977.1.1
 TIP# U-3812



LEGEND

- Proposed Right of Way
- Existing Right of Way
- Property Boundaries
- Cut/Fill Line
- Cut/Fill Line
- Boring Locations
- Proposed Hydraulic Ditch

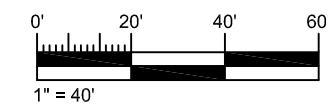
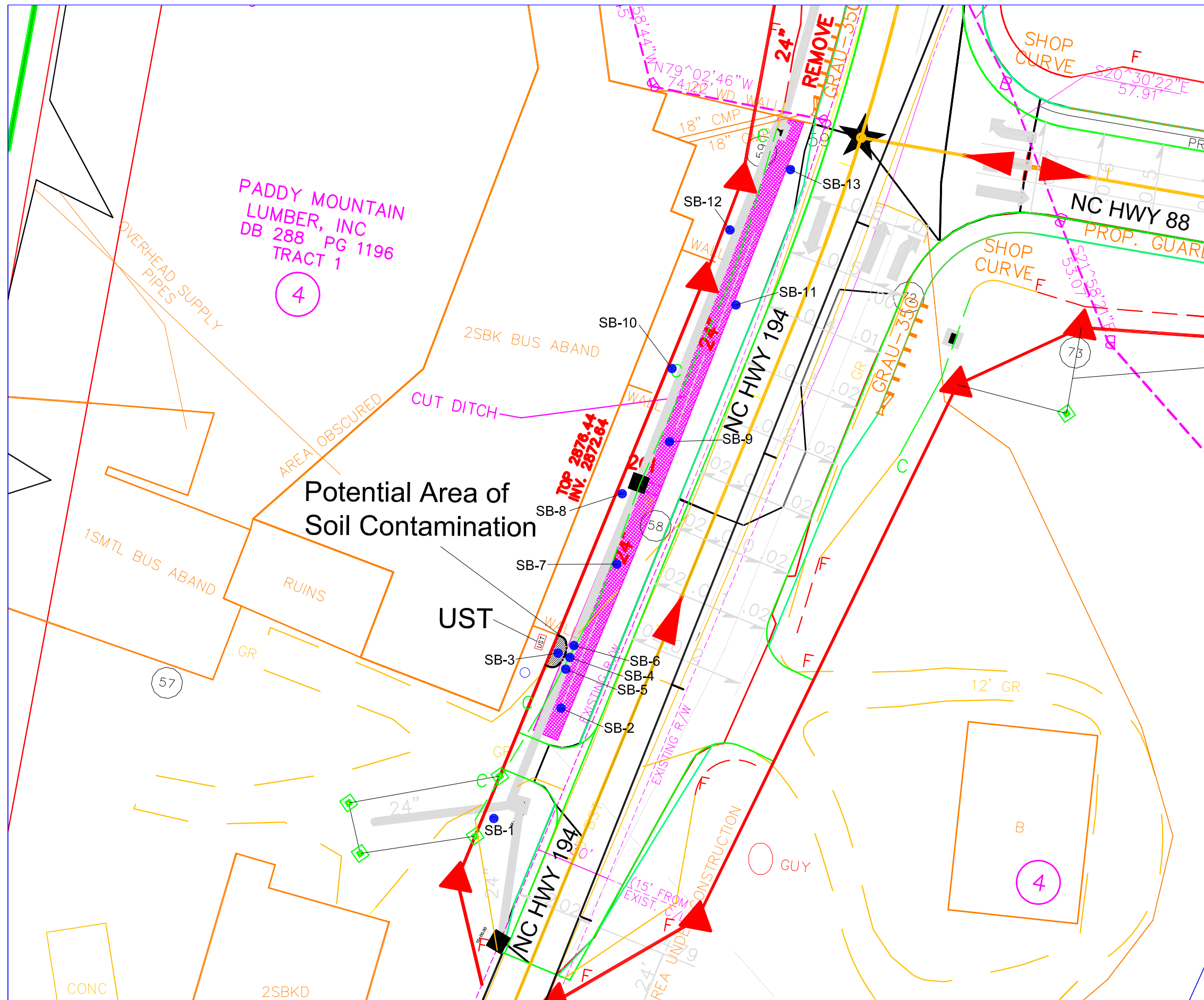










Figure 3
Site Map With Analytical Data
Parcel 4 Paddy Mountain Lumber Property

NC Department of Transportation
Geotechnical Unit
WBS Element: 34977.1.1
TIP# U-3812



LEGEND

-  Proposed Right of Way
-  Existing Right of Way
-  Property Boundaries
-  Cut/Fill Line
-  Cut/Fill Line
-  Boring Locations
-  Proposed Hydraulic Ditch
-  Area of Contamination

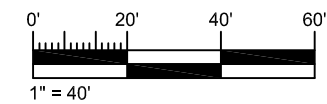


Figure 4
 Site Map With Potential Area of Soil Contamination
 Parcel 4 Paddy Mountain Lumber Property

NC Department of Transportation
 Geotechnical Unit
 WBS Element: 34977.1.1
 TIP# U-3812

APPENDIX A


PHOTO LOG

Photo Log

PAGE 1 of 1



Photo No. 1	Date: 02/26/10	
Direction Photo Taken: South		
Description: View of Parcel 4 Proposed ROW		

Photo No. 2	Date: 03/31/10	
Direction Photo Taken: West		
Description: View of probable UST		

APPENDIX B
BORING LOGS

APPENDIX C
GEOPHYSICAL SURVEY REPORT



April 26, 2010

Ms. Helen Corley, LG, Project Manager
AMEC Earth and Environmental of North Carolina, Inc.
101 W. Friendly Avenue, Suite 603
Greensboro, NC 27401

RE: State Project: U-3812
 WBS Element: 34977.1.1
 County: Ashe
 Description: Jefferson – NC 88 from NC 194 to US 221 Bus

**Subject: Report on Geophysical Surveys for Parcel 4, West Jefferson, NC
 Schnabel Engineering Project 09210013.17**

Dear Ms. Corley:

Schnabel Engineering South, P.C. (Schnabel) is pleased to present this report on the geophysical surveys we conducted on the subject property. We understand this letter report will be included as an appendix in your report to the NCDOT. The report includes two 11x17 color figures and three 8.5x11 color figures.

1.0 INTRODUCTION

The work described in this report was conducted on March 15 and 23, 2010, by Schnabel under our 2009 contract with the NCDOT. The work was conducted within the accessible areas of the proposed right-of-way and/or easement as indicated by the NCDOT to support their environmental assessment of Parcel 4 (Paddy Mountain Lumber Inc Property). Photographs of the parcel are included on Figure 1. The purpose of the geophysical surveys was to locate suspect metal underground storage tanks (UST's) and associated metal product lines in the accessible areas of the right-of-way and/or easement.

The geophysical investigation consisted of electromagnetic (EM) induction surveys using a Geonics EM61-MK2 instrument. The EM61 metal detector is used to locate metal objects buried up to about eight feet below ground surface. Ground-penetrating radar (GPR) investigations of selected EM61 anomalies, including areas of reinforced concrete, were conducted using a Geophysical Survey Systems SIR-3000 system equipped with a 400 MHz antenna. Photographs of the equipment used are shown on Figure 2.

2.0 FIELD METHODOLOGY

Locations of geophysical data points were obtained using a sub-meter Trimble Pro-XRS DGPS system. References to direction and location in this report are based on the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 83 datum, with units in US survey feet. The locations of existing site features (building, curbs, signs, etc.) were recorded for later correlation with the geophysical data and for location references to the NCDOT drawings.

The EM61 data were collected along parallel survey lines spaced approximately 2.5 feet apart. The EM61 and DGPS data were recorded digitally using a field computer and later transferred to a desktop computer for data processing. The GPR data were collected along survey lines spaced one to two feet apart in two orthogonal directions over anomalous EM readings not attributed to cultural features. The GPR data were reviewed in the field to evaluate the possible presence of UST's. The GPR data also were recorded digitally and later transferred to a desktop computer for further review.

Preliminary results for Parcel 4 were sent to Helen Corley and Troy Holzschuh of AMEC and Ethan Caldwell of the NCDOT on March 30, 2010.

3.0 DISCUSSION OF RESULTS

The contoured EM61 data for Parcel 4 are shown on Figures 3 and 4. The EM61 early time gate results are plotted on Figure 3. The early time gate data provide the more sensitive detection of metal objects. Figure 4 shows the difference between the response of the top and bottom coils of the EM61 instrument (differential response). The difference is taken to remove the effect of surface and very shallowly buried metallic objects. Typically, the differential response emphasizes anomalies from deeper and larger objects such as UST's.

The early time gate and differential results show anomalies apparently caused by buried utilities, buried metal, or known site features (Figures 3 and 4). The GPR data collected approximately 30 feet north of the southeastern main building corner on Parcel 4 indicated the presence of a probable UST just inside the limits of the planned right-of way. An example GPR image showing the reflection from the probable UST on Parcel 4 is shown on Figures 3 and 4. Figures 3 and 4 also show the location of the probable UST as marked in the field, superimposed on the EM61 data contour plots. The GPR data indicate that the probable UST on Parcel 4 is buried approximately 1.5 to 2.5 feet below ground surface and is about 3 feet in diameter and about 5 feet long, equivalent to a capacity of about 270 gallons. Photographs of the probable UST location, as marked in the field, are included on Figure 5.

4.0 CONCLUSIONS

Our evaluation of the geophysical data collected on Parcel 4 on Project U-3812 in West Jefferson, NC indicates the following:

The geophysical data indicate the presence of a probable UST on Parcel 4 located approximately 30 feet north of the southeastern corner of the main building. The UST is within the planned right-of-way and/or easement. The probable UST is about 270-gallon capacity and is buried about 1.5 to 2.5 feet below ground surface.

5.0 LIMITATIONS

These services have been performed and this report prepared for the North Carolina Department of Transportation in accordance with generally accepted guidelines for conducting geophysical surveys. It is generally recognized that the results of geophysical surveys are non-unique and may not represent actual subsurface conditions.

Thank you for the opportunity to serve you on this project. Please call if you need additional information or have any questions.

Sincerely,

SCHNABEL ENGINEERING SOUTH, PC



James W. Whitt
Staff Geophysicist



Edward D. Billington, LG
Senior Vice President

JW:NB

Attachment: Figures (5)

FILE: G:\2009 PROJECTS\09210013 (NCDOT 2009 GEOTECH UNIT SERVICES)\09210013.17 (U-3812, ASHE COUNTY)\REPORT\PARCEL 4\PARCEL 4 (U-3812).DOC



Parcel 4 – Paddy Mountain Lumber Inc. Property, looking north



Parcel 4 – Paddy Mountain Lumber Inc. Property, looking southwest



STATE PROJECT U-3812
ASHE CO., NORTH CAROLINA
NC DEPT. OF TRANSPORTATION
PROJECT NO. 09210013.17

PARCEL 4
SITE PHOTOS

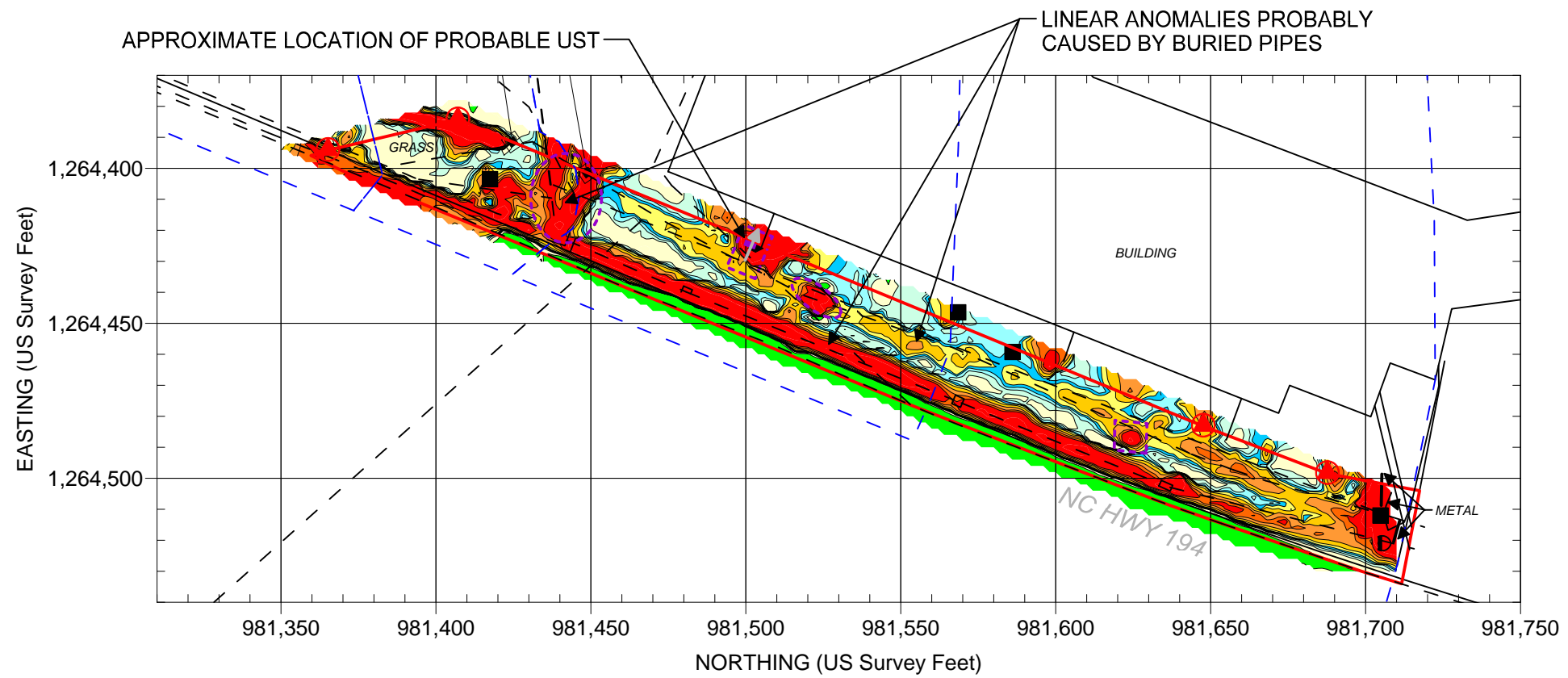
FIGURE 1



Geonics EM61-MK2

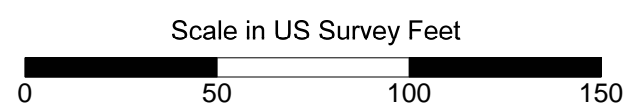
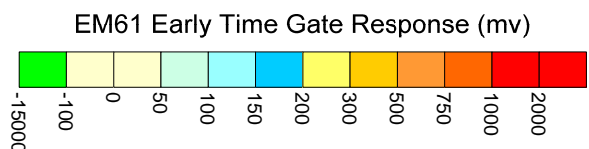


GSSI SIR-3000

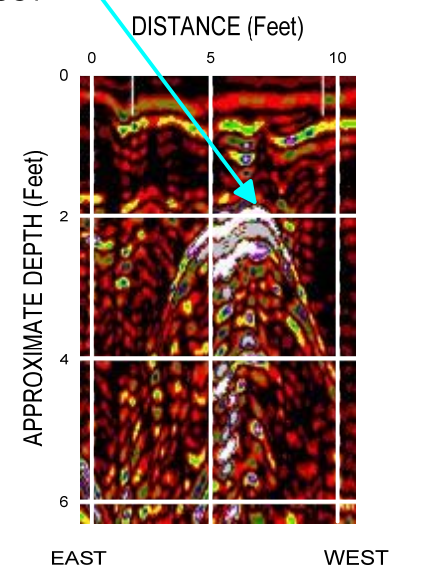


EXPLANATION	
	SIGN
	UTILITY POLE
	GUY WIRE
	MISCELLANEOUS METALLIC OBJECT
	UTILITY MANHOLE, METER, BOX, ETC.
	LIGHT POLE
	STORM SEWER INLET
	UST LID
	DOT PROPOSED R/W
	DOT PROPOSED UTILITY EASEMENT
	PROPERTY LINE
	UTILITY (AS MARKED BY OTHERS OR AS PROVIDED BY NCDOT (VARIOUS COLORS))
	EXAMPLE GPR LINE LOCATION
	GPR SURVEY AREA
	LOCATION OF SUSPECT UST MARKED ON SITE

REF.: NCDOT FILE: u3812_rdy_psh04.dgn
(FOR SOME SITE FEATURES)

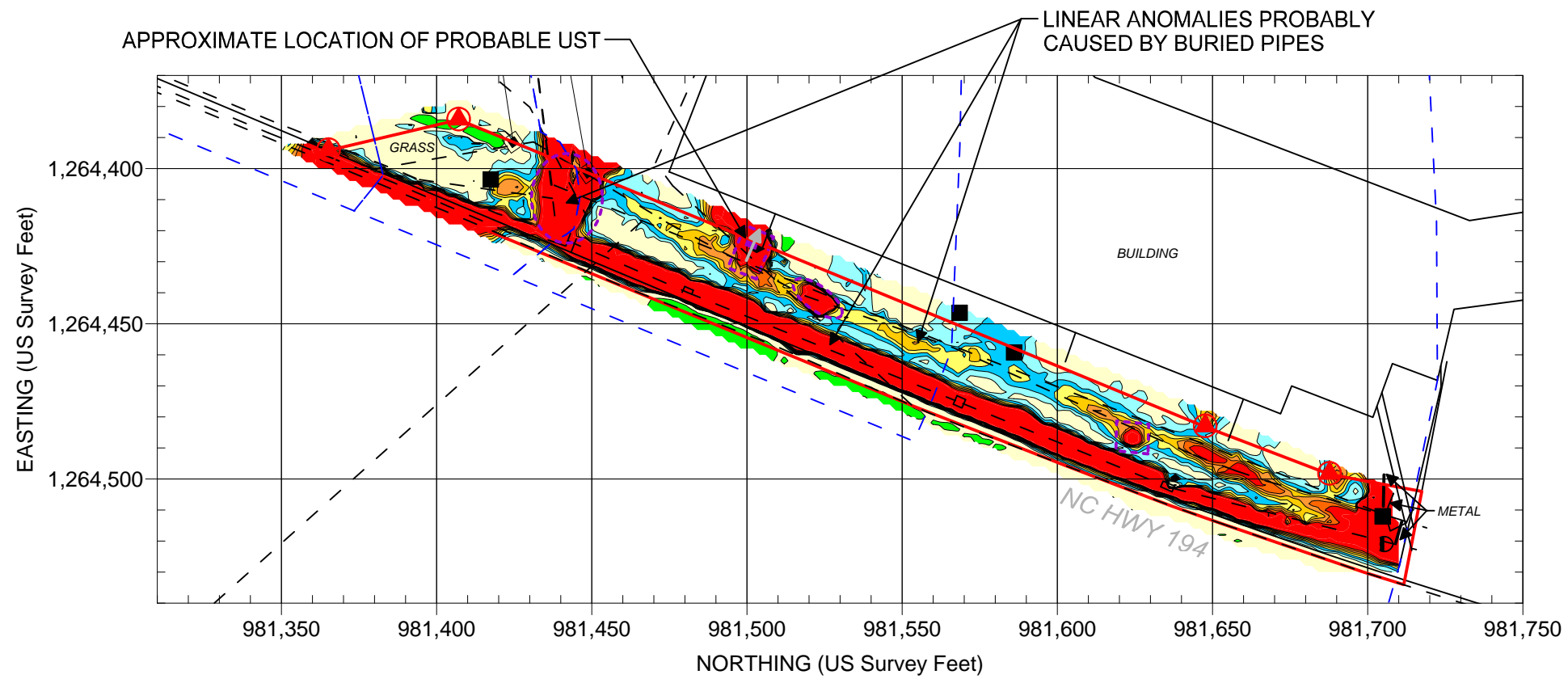


EXAMPLE GPR RESPONSE FROM PROBABLE UST



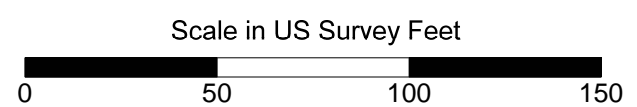
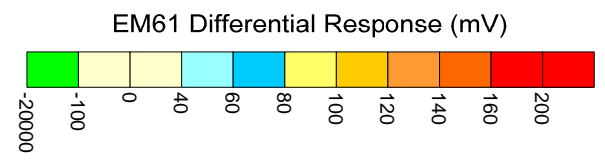
Note: The contour plot shows the earliest and most sensitive time gate of the EM61 bottom coil/channel in millivolts (mV). The EM data were collected on March 15, 2010, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina Zone 3200, using the NAD 1983 datum. GPR data were acquired on March 23, 2010, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

	<p>STATE PROJECT U-3812 ASHE COUNTY, NORTH CAROLINA NC DEPARTMENT OF TRANSPORTATION PROJECT NO. 09210013.17</p>	<p>PARCEL 4 EM61 EARLY TIME GATE RESPONSE</p> <p style="text-align: right;">FIGURE 3</p>
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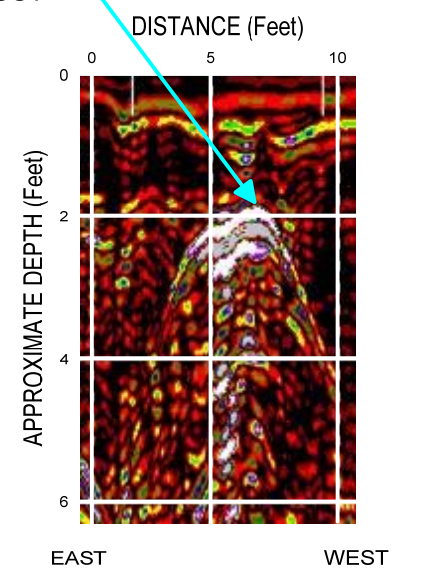


EXPLANATION	
	SIGN
	UTILITY POLE
	GUY WIRE
	MISCELLANEOUS METALLIC OBJECT
	UTILITY MANHOLE, METER, BOX, ETC.
	LIGHT POLE
	STORM SEWER INLET
	UST LID
	DOT PROPOSED R/W
	DOT PROPOSED UTILITY EASEMENT
	PROPERTY LINE
	UTILITY (AS MARKED BY OTHERS OR AS PROVIDED BY NCDOT (VARIOUS COLORS))
	EXAMPLE GPR LINE LOCATION
	GPR SURVEY AREA
	LOCATION OF SUSPECT UST MARKED ON SITE

REF.: NCDOT FILE: u3812_rdy_psh04.dgn
(FOR SOME SITE FEATURES)



EXAMPLE GPR RESPONSE FROM PROBABLE UST



Note: The contour plot shows the difference, in millivolts (mV), between the readings from the top and bottom coils of the EM61. The difference is taken to reduce the effect of shallow metal objects and emphasize anomalies caused by deeper metallic objects, such as drums and tanks. The EM data were collected on March 15, 2010, using a Geonics EM61-MK2 instrument. Positioning for the EM61 survey was provided using a submeter Trimble ProXRS DGPS system. Coordinates are in the US State Plane 1983 System, North Carolina 3200 Zone, using the NAD 1983 datum. GPR data were acquired on March 23, 2010, using a Geophysical Survey Systems SIR 3000 equipped with a 400 MHz antenna.

	<p>STATE PROJECT U-3812 ASHE COUNTY, NORTH CAROLINA NC DEPARTMENT OF TRANSPORTATION PROJECT NO. 09210013.17</p>	<p>PARCEL 4 EM61 DIFFERENTIAL RESPONSE FIGURE 4</p>
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Parcel 4 – Paddy Mountain Lumber Inc., looking northwest. Photo shows approximate marked location of the probable UST near the southeast corner of the building.



Parcel 4 – Paddy Mountain Lumber Inc., looking northeast. Photo shows approximate marked location of the probable UST located near the southeast corner of the building.



STATE PROJECT U-3812
ASHE CO., NORTH CAROLINA
NC DEPT. OF TRANSPORTATION
PROJECT NO. 09210013.17

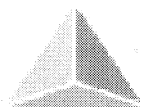
PHOTOS OF
PROBABLE
UST LOCATION

FIGURE 5

APPENDIX D

LABORATORY ANALYTICAL RESULTS

Case Narrative



PRISM
LABORATORIES, INC.

Date: 04/16/10
Company: N. C. Department of Transportation
Contact: Helen Corley
Address: c/o AMEC Earth & Environmental, Inc.
101 W. Friendly Ave. Suite 603
Greensboro, NC 27401

Client Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
Prism COC Group No: G0410062
Collection Date(s): 03/31/10
Lab Submittal Date(s): 04/05/10

Client Project Name Or No: WBS #34977.1.1

This data package contains the analytical results for the project identified above and includes a Case Narrative, Laboratory Report and Quality Control Data totaling 16 pages. A chain-of-custody is also attached for the samples submitted to Prism for this project.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative. Quality control statements and/or sample specific remarks are included in the sample comments section of the laboratory report for each sample affected.

Semi Volatile Analysis

No Anomalies Reported

Volatile Analysis

Analysis Note for Q49302 MS Gasoline Range Organics (GRO): MS and MSD recoveries outside of the control limits.

Metals Analysis

N/A

Wet Lab and Micro Analysis

N/A

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

Data Reviewed by: Robbi A. Jones

Project Manager: Robbi A. Jones

Signature:

Robbi A. Jones

Signature:

Robbi A. Jones

Review Date: 04/16/10

Approval Date: 04/16/10

Data Qualifiers Key Reference:

B: Compound also detected in the method blank.

#: Result outside of the QC limits.

DO: Compound diluted out.

E: Estimated concentration, calibration range exceeded.

J: The analyte was positively identified but the value is estimated below the reporting limit.

H: Estimated concentration with a high bias.

L: Estimated concentration with a low bias.

M: A matrix effect is present.

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 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/16/10

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-1 (7)
 Prism Sample ID: 275648
 COC Group: G0410062
 Time Collected: 03/31/10 15:15
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	79.3	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.8	1.4	1	8015B	04/09/10 21:40	jvogel	Q49322
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Sample Preparation: 25.15 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	51	49 - 124

Sample Weight Determination

Weight 1	7.47	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	7.95	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	3.9	50	8015B	04/09/10 4:31	heasler	Q49295
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Surrogate	% Recovery	Control Limits
aaa-TFT	102	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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Laboratory Report

04/16/10

N. C. Department of Transportation
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 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-2 (5-6)
 Prism Sample ID: 275649
 COC Group: G0410062
 Time Collected: 03/31/10 15:50
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	70.5	%			1	SM2540 G	04/06/10 14:35	jbrayton	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	9.9	1.6	1	8015B	04/09/10 22:15	ivogel	Q49322
Sample Preparation:			25.09 g	/	1 mL	3545	04/08/10 17:00	athao	P27223
					Surrogate	% Recovery	Control Limits		
					o-Terphenyl	55	49 - 124		
Sample Weight Determination									
Weight 1	6.52	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	7.32	g			1	GRO	04/08/10 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	7.1	4.4	50	8015B	04/09/10 5:34	heasler	Q49295
					Surrogate	% Recovery	Control Limits		
					aaa-TFT	92	55 - 129		

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

04/16/10

N. C. Department of Transportation
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 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-3 (6-7)
 Prism Sample ID: 275650
 COC Group: G0410062
 Time Collected: 03/31/10 16:15
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	84.8	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	1000	mg/kg	160	27	20	8015B	04/12/10 16:18	jvogel	Q49322
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Sample Preparation: 25.1 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	DO #	49 - 124

Sample Weight Determination

Weight 1	6.94	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	7.78	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	20	mg/kg	5.9	3.7	50	8015B	04/09/10 19:01	heasler	Q49302
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Surrogate	% Recovery	Control Limits
aaa-TFT	116	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-4 (4-5)
 Prism Sample ID: 275651
 COC Group: G0410062
 Time Collected: 03/31/10 16:30
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	75.5	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	9.2	1.5	1	8015B	04/09/10 22:51	jvogel	Q49322
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Sample Preparation: 25.16 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	58	49 - 124

Sample Weight Determination

Weight 1	7.40	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	7.73	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.6	4.1	50	8015B	04/09/10 19:33	heasler	Q49302
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Surrogate	% Recovery	Control Limits
aaa-TFT	100	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-5 (3-4)
 Prism Sample ID: 275652
 COC Group: G0410062
 Time Collected: 03/31/10 16:50
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	77.4	%			1	SM2540 G	04/06/10 14:35	jbrayton	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	9.0	1.5	1	8015B	04/12/10 15:42	jbvogel	Q49322
Sample Preparation:			25.05 g	/	1 mL	3545	04/08/10 17:00	athao	P27223
					Surrogate		% Recovery	Control Limits	
					o-Terphenyl		64	49 - 124	
Sample Weight Determination									
Weight 1	6.92	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.79	g			1	GRO	04/08/10 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.5	4.0	50	8015B	04/09/10 20:04	heasler	Q49302
					Surrogate		% Recovery	Control Limits	
					aaa-TFT		120	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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04/16/10

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-6 (2-3)
 Prism Sample ID: 275653
 COC Group: G0410062
 Time Collected: 03/31/10 17:10
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	77.3	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	9.1	1.5	1	8015B	04/09/10 23:27	jbvogel	Q49322
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Sample Preparation: 24.97 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	57	49 - 124

Sample Weight Determination

Weight 1	7.50	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	7.85	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.5	4.0	50	8015B	04/09/10 18:30	heasler	Q49302
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Surrogate	% Recovery	Control Limits
aaa-TFT	104	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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04/16/10

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 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-7 (4-5)
 Prism Sample ID: 275654
 COC Group: G0410062
 Time Collected: 03/31/10 17:30
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	68.1	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	10	1.7	1	8015B	04/10/10 0:02	jvogel	Q49322
Sample Preparation:			25.01 g	/	1 mL	3545	04/08/10 17:00	athao	P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	55	49 - 124

Sample Weight Determination

Weight 1	6.45	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	5.51	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	7.3	4.6	50	8015B	04/09/10 20:35	heasler	Q49302
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Surrogate recovery was above the control limit. GRO was not detected in the sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	133 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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04/16/10

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 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-8 (6-7)
 Prism Sample ID: 275655
 COC Group: G0410062
 Time Collected: 03/31/10 17:40
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	76.7	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	9.1	1.5	1	8015B	04/12/10 11:35	jbvogel	Q49322
-----------------------------	-----	-------	-----	-----	---	-------	----------------	---------	--------

Sample Preparation: 25.08 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	53	49 - 124

Sample Weight Determination

Weight 1	7.78	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.73	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.5	4.1	50	8015B	04/09/10 21:07	heasler	Q49302
-------------------------------	-----	-------	-----	-----	----	-------	----------------	---------	--------

Surrogate	% Recovery	Control Limits
aaa-TFT	115	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

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Laboratory Report

04/16/10

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 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-9 (4-5)
 Prism Sample ID: 275656
 COC Group: G0410062
 Time Collected: 03/31/10 17:55
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	81.9	%			1	SM2540 G	04/06/10 14:35	jbrayton	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.5	1.4	1	8015B	04/12/10 12:10	jbvogel	Q49322
Sample Preparation:			25.06 g	/	1 mL	3545	04/08/10 17:00	athao	P27223
					Surrogate		% Recovery	Control Limits	
					o-Terphenyl		55	49 - 124	
Sample Weight Determination									
Weight 1	6.17	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.81	g			1	GRO	04/08/10 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.1	3.8	50	8015B	04/09/10 21:38	heasler	Q49302
					Surrogate		% Recovery	Control Limits	
					aaa-TFT		125	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-10 (5-6)
 Prism Sample ID: 275657
 COC Group: G0410062
 Time Collected: 03/31/10 18:10
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	79.0	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	8.8	1.4	1	8015B	04/12/10 12:46	jvogel	Q49322
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Sample Preparation: 25.04 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	57	49 - 124

Sample Weight Determination

Weight 1	6.91	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.93	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	4.0	50	8015B	04/09/10 22:09	heasler	Q49302
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Surrogate recovery was above the control limit. GRO was not detected in the sample. No further action was taken.

Surrogate	% Recovery	Control Limits
aaa-TFT	133 #	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

The results in this report relate only to the samples submitted for analysis and meet state certification requirements other than NELAC certification except for those instances indicated in the case narrative and/or test comments.

All results are reported on a dry-weight basis

Angela D. Overcash, V.P. Laboratory Services

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Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Laboratory Report

04/16/10

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-11 (4-5)
 Prism Sample ID: 275658
 COC Group: G0410062
 Time Collected: 03/31/10 18:20
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Percent Solids Determination

Percent Solids	70.7	%			1	SM2540 G	04/06/10 14:35	jbrayton	
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Diesel Range Organics (DRO) by GC-FID

Diesel Range Organics (DRO)	BRL	mg/kg	9.9	1.6	1	8015B	04/12/10 13:21	jbvogel	Q49322
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Sample Preparation: 24.99 g / 1 mL 3545 04/08/10 17:00 athao P27223

Surrogate	% Recovery	Control Limits
o-Terphenyl	50	49 - 124

Sample Weight Determination

Weight 1	6.52	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.90	g			1	GRO	04/08/10 0:00	lbrown	

Gasoline Range Organics (GRO) by GC-FID

Gasoline Range Organics (GRO)	BRL	mg/kg	7.1	4.4	50	8015B	04/09/10 22:41	heasler	Q49302
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Surrogate	% Recovery	Control Limits
aaa-TFT	126	55 - 129

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

04/16/10

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-12 (4-5)
 Prism Sample ID: 275659
 COC Group: G0410062
 Time Collected: 03/31/10 18:30
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	79.5	%			1	SM2540 G	04/06/10 14:35	jbrayton	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.8	1.4	1	8015B	04/12/10 13:56	jvogel	Q49322
Sample Preparation:			24.98 g	/	1 mL	3545	04/08/10 17:00	athao	P27223
					Surrogate		% Recovery	Control Limits	
					o-Terphenyl		57	49 - 124	
Sample Weight Determination									
Weight 1	6.88	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	5.83	g			1	GRO	04/08/10 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.3	3.9	50	8015B	04/09/10 23:12	heasler	Q49302
					Surrogate		% Recovery	Control Limits	
					aaa-TFT		68	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Laboratory Report

04/16/10

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 (Parcel 4)
 Project No.: WBS #34977.1.1
 Sample Matrix: Soil

Client Sample ID: P4-SB-13 (4-5)
 Prism Sample ID: 275660
 COC Group: G0410062
 Time Collected: 03/31/10 18:40
 Time Submitted: 04/05/10 11:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Percent Solids Determination									
Percent Solids	80.3	%			1	SM2540 G	04/06/10 14:35	jbrayton	
Diesel Range Organics (DRO) by GC-FID									
Diesel Range Organics (DRO)	BRL	mg/kg	8.7	1.4	1	8015B	04/12/10 14:31	jvogel	Q49322
Sample Preparation:			25.05 g	/	1 mL	3545	04/08/10 17:00	athao	P27223
					Surrogate		% Recovery	Control Limits	
					o-Terphenyl		51	49 - 124	
Sample Weight Determination									
Weight 1	6.74	g			1	GRO	04/08/10 0:00	lbrown	
Weight 2	6.28	g			1	GRO	04/08/10 0:00	lbrown	
Gasoline Range Organics (GRO) by GC-FID									
Gasoline Range Organics (GRO)	BRL	mg/kg	6.2	3.9	50	8015B	04/09/10 23:44	heasler	Q49302
					Surrogate		% Recovery	Control Limits	
					aaa-TFT		98	55 - 129	

Sample Comment(s):

BRL = Below Reporting Limit

J- Estimated value between the Reporting Limit and the MDL

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Angela D. Overcash, V.P. Laboratory Services

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 NC Drinking Water Cert. No. 37735

Level II QC Report

4/16/2010

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 Project No.: (Parcel 4)
 WBS #34977.1.1

COC Group Number: G0410062
 Date/Time Submitted: 4/5/2010 11:00

Gasoline Range Organics (GRO) by GC-FID, method 8015B

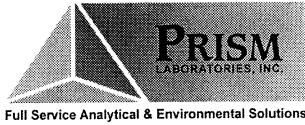
Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Gasoline Range Organics (GRO)	ND	5	<2.5	mg/kg			Q49295		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Gasoline Range Organics (GRO)	50.20	50		mg/kg	100	67-116	Q49295		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
275461 Gasoline Range Organics (GRO)	41.90	50		mg/kg	84	57-113	Q49295		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	
275461 Gasoline Range Organics (GRO)	44.10	50		mg/kg	88	57-113	5	0 - 23	Q49295

Gasoline Range Organics (GRO) by GC-FID, method 8015B

Method Blank							QC Batch ID		
	Result	RL	Control Limit	Units					
Gasoline Range Organics (GRO)	ND	5	<2.5	mg/kg			Q49302		
Laboratory Control Sample							QC Batch ID		
	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
Gasoline Range Organics (GRO)	48.70	50		mg/kg	97	67-116	Q49302		
Matrix Spike							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %			
275653 Gasoline Range Organics (GRO)	56.85	50		mg/kg	114 #	57-113	Q49302		
Matrix Spike Duplicate							QC Batch ID		
Sample ID:	Result	Spike Amount		Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	
275653 Gasoline Range Organics (GRO)	60.40	50		mg/kg	121 #	57-113	6	0 - 23	Q49302

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NC Certification No. 402
 SC Certification No. 99012
 NC Drinking Water Cert. No. 37735

Level II QC Report

4/16/2010

N. C. Department of Transportation
 Attn: Helen Corley
 c/o AMEC Earth & Environmental, Inc.
 101 W. Friendly Ave. Suite 603
 Greensboro, NC 27401

Project ID: NCDOT: Ashe Co. PSA
 Project No.: (Parcel 4)
 WBS #34977.1.1

COC Group Number: G0410062
 Date/Time Submitted: 4/5/2010 11:00

Diesel Range Organics (DRO) by GC-FID, method 8015B

Method Blank							QC Batch ID	
	Result	RL	Control Limit	Units				
Diesel Range Organics (DRO)	ND	7	<3.5	mg/kg			Q49322	
Laboratory Control Sample							QC Batch ID	
	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			
Diesel Range Organics (DRO)	65.6	80	mg/kg	82	55-109		Q49322	
Matrix Spike							QC Batch ID	
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %			
275538 Diesel Range Organics (DRO)	67.5	80	mg/kg	84	50-117		Q49322	
Matrix Spike Duplicate							QC Batch ID	
Sample ID:	Result	Spike Amount	Units	Recovery %	Recovery Ranges %	RPD %	RPD Range %	
275538 Diesel Range Organics (DRO)	55.8	80	mg/kg	70	50-117	19	0 - 24	Q49322

#-See Case Narrative



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: AMEC
 Report To/Contact Name: Helen Corley
 Reporting Address: 101 W. Friendly Ave Ste 603
Greensboro, NC 27401

Phone: 336-691-5398 Fax (Yes) (No):
 Email: (Yes) (No) Email Address: helen.corley@amec.com
 EDD Type: PDF Excel Other
 Site Location Name: Parcel 4
 Site Location Physical Address: NC Hwy 199

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING: WBS 34977.1
 Project Name: Ashe Co. PSA's
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
 *Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements
 Invoice To: Helen Corley
 Address: Same

Purchase Order No./Billing Reference WBS 34977.1.1
 Requested Due Date 1 Day 2 Days 3 Days 4 Days 5 Days
 "Working Days" 6-9 Days Standard 10 days 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)

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 _____

LAB USE ONLY
 Samples INTACT upon arrival? YES _____ NO _____ N/A _____
 Received ON WET ICE? Temp 3.8
 PROPER PRESERVATIVES indicated?
 Received WITHIN HOLDING TIMES?
 CUSTODY SEALS INTACT?
 VOLATILES rec'd W/OUT HEADSPACE?
 PROPER CONTAINERS used?

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				
P4-SB-1(7)	3-31-10	1515	soil	G. Van	4	G. Van		PRD / 600	X	275648
P4-SB-2(5-6)		1550								275649
P4-SB-3(6-7)		1615								275650
P4-SB-4(4-5)		1630								275651
P4-SB-5(3-4)		1650								275652
P4-SB-6(2-3)		1710								275653
P4-SB-7(4-5)		1730								275654
P4-SB-8(6-7)		1740								275655
P4-SB-9(4-5)		1755								275656
P4-SB-10(5-6)		1810								275657

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Sampler's Signature Troy Holzschuh Sampled By (Print Name) Troy Holzschuh Affiliation AMEC

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) Troy Holzschuh Received By: (Signature)
 Relinquished By: (Signature) Troy Holzschuh Received By: (Signature)

Relinquished By: (Signature) Troy Holzschuh Received By: (Signature)
 Received For Prism Laboratories By: Troy Holzschuh

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTOM SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST CPC UNTIL RECEIVED AT THE LABORATORY.
 Fed Ex UPS Hand-delivered Prism Field Service Other

Additional Comments: DATE 4/5/10 1100
 Date 4/5/10 Military/Hours 1100
 Date 4/5/10 Date 1100 COC Grip No. 60410062

PRISM USE ONLY
 Site Arrival Time:
 Site Departure Time:
 Field Tech Fee:
 Mileage:
 NPDES: NC SC NC SC NC SC NC SC
 DRINKING WATER: NC SC NC SC
 GROUNDWATER: NC SC NC SC
 SOLID WASTE: NC SC NC SC
 RCRA: NC SC NC SC
 CERCLA: NC SC NC SC
 LANDFILL: NC SC NC SC
 OTHER: NC SC NC SC
 *CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

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