June 5, 2020



Ashley B. Cox, Jr, LG Geotechnical Engineering Unit North Carolina Department of Transportation 1020 Birch Ridge Drive Raleigh, NC 27610

RE: PHASE II INVESTIGATION OF PARCEL 85 Former Hensdale Grocery, Daniel Ray Lasley 4685 Reidsville Road, Winston-Salem, NC ESP Project No. GR22.325

TIP Number:	R-2577A
WBS Number:	37405.1.2
County:	FORSYTH
Description:	US 158 from North of US 421 to SR 1965 (Belews Creek Road)

Dear Mr. Cox:

ESP Associates, Inc. (ESP) is pleased to submit this report on our GeoEnvironmental Phase II Investigation of the subject parcel. This work was performed in accordance with your Request for Proposal received on April 14, 2020, and our Cost Proposal dated April 23, 2020.

We appreciate the opportunity to assist you during this phase of the project. If you should have any questions concerning this report, or if we may be of further assistance, please contact us.

Sincerely,

ESP Associates, Inc.

Edward D. Billington, PG Senior Geologist/Geophysicist EDB/CRP/NAZ

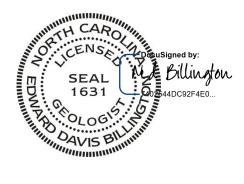


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1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) is planning to widen U.S. 158 (Reidsville Road) from north of U.S. 421/I-40 Business to Belews Creek Road (S.R. 1965) in Forsyth County. The primary purpose of this project is to improve traffic operations. The NCDOT requested that ESP Associates, Inc. (ESP) perform a Phase II geoenvironmental investigation of the existing right-of-way (ROW) and part of the proposed ROW of Parcel 85 to locate possible underground storage tanks (USTs), sample soil, and delineate potential contaminated soil. Parcel 85 is located on the north side of Reidsville Road between Old Belews Creek Road and Franklin Farm Road (Figure 1).

2.0 HISTORY

2.1 Ownership

The following is the current parcel ownership, according to the Forsyth County GIS (https://www.forsyth.cc/Tax/geodata.aspx):

- Sale Date: 3/7/2008
- Current Owner: Lasley, Daniel Ray
- Owner's Address: 4915 Harley Dr, Walkertown NC 27051

2.2 NCDEQ Information

This parcel was listed as Site 3 in the 2004 Phase 1 report that was provided by the NCDOT. We checked the following sources at the NCDEQ with the results summarized below:

- Division of Waste Management Site Locator Tool
 - Indicated UST Incident #30195
 - Site Name: Hensdale Grocery.
 - No files in Documents Link.
- NC UST Facility Operating Permits
 - No listing
- Registered USTs Database
 - 3 Registered USTs installed in May 1982
 - Facility: 016021
 - Facility Name: Steve Moore-Hensdale Grocery
 - 8000, 4000, and 4000-gallon gasoline USTs
 - The 3 USTs were removed in June 2003.
- Incident Management Database (Regional USTs)
 - Incident: 30195
 - UST No.: WS-6682
 - Date Occurred: 6/17/2003

- Closed out: 4/28/2006
- Contamination: Soil
- Site sent to State Lead 4/30/2004
- Winston-Salem Regional NCDEQ Office
 - Provided information on AST Incident #95451
 - Spill occurred 3/10/2017 (Hagan Trucking Diesel Spill)
 - Soil remediation report dated 3/28/2017 indicated that the spill occurred in the existing NCDOT ROW of Parcel 85 on the edge of Reidsville Road near the intersection of Old Belews Creek Road.
 - Cleanup was hampered by shallow bedrock and buried utilities.
 - Soil testing after cleanup indicated that one sample (near our Boring B85-1) exceeded current NC action levels for Gasoline Range Organics (GRO) and Diesel Range Organics (DRO).
- NCDEQ UST Section, Trust Fund Branch
 - Provided copy of July 15, 2003 UST Closure Report
 - The closure report indicated that the 3 USTs, the vent lines, and the product line to the former dispenser island were removed. Soil was excavated down to bedrock about 5 to 6 feet below ground surface (bgs) and disposed of offsite. Samples taken at the bottom of the excavation indicated some remaining petroleum contamination.
 - The closure report indicated that the former tank pit was located on the northeast side of the parcel (near our Boring B85-10) and the former dispenser island was located near the center of the parcel (near our Boring B85-7).
 - A copy of the figure from that report showing the location of the former tank pit and the former dispenser island is included in Appendix D.
 - Provided copy of January 14, 2005 Limited Assessment Report (LSA) for Incident #30195.
 - A monitoring well (MW-1) was installed at the location of the former dispenser island. The groundwater level was approximately 25 feet bgs.
 - A copy of the figure from the LSA report showing the location of the former tank pit, the former dispenser island, and MW-1 is included in Appendix D.

3.0 SITE OBSERVATIONS

During our May 2020 field work, the site was occupied by a single building with two businesses: Creative Designs and Black Clover Tattoo (Figure 2). The ground in the study area was covered by grass and gravel. Some apparent rock outcrops were noted on the northeast side of the parcel towards Franklin Farm Road. One monitoring well was present at the former dispenser island location.

4.0 METHODS

ESP performed a geophysical study of the area designated by the NCDOT on May 4, 2020. The geophysical investigation area was approximately 0.53 acres and encompassed the existing ROW and some of the proposed ROW. We performed direct-push drilling and sampling of subsurface soils on May 14, 2020. A photoionization detector (PID) was used to screen subsurface soils in the field and select soil samples to send for laboratory analysis. Groundwater was not encountered during the drilling investigation.

4.1 Geophysics

ESP performed a metal detector study over the accessible areas of the site using a Geonics EM61 MK2 with a line spacing of approximately three feet (Figures 3 and 4). Location control was provided in real-time using a differential global positioning system (DGPS). No EM61 anomalies were observed that required additional investigation using ground-penetrating radar (GPR).

4.2 Borings

ESP performed direct-push drilling activities within the existing and proposed ROWs of Parcel 85 using a subcontractor, SAEDACCO of Fort Mill, South Carolina. Ten borings were drilled, designated B85-1 through B85-10 (Figure 7). The borings were evenly spaced throughout the study area. Boring B85-1 was located near the southern corner of the parcel, in the vicinity of the 2017 diesel spill. Boring B85-7 was located near the former dispenser island. Boring B85-10 was located in the vicinity of the former tank pit. Borings B85-3, B85-9, and B85-10 were located close to proposed drainage structures.

The soil borings were advanced using a GeoProbe 7822DT drill rig. A hand auger was used to sample two borings due to poor direct-push recovery. Soil samples were obtained to a maximum depth of approximately 10 feet using two 5-foot long Macro-Core® tubes. The sampling equipment was decontaminated prior to drilling and between borings by the driller using a Liquinox® detergent solution. Soil cores varied in recovery from 1.8 to 4.4 feet (36 to 88 percent recovery). Eight of the borings encountered refusal at depths ranging from 1.8 to 7.0 feet and were offset for a second attempt. Direct-push refusal was likely on weathered bedrock.

4.3 Soil Sample Protocol

Representative soil samples were taken from the Macro-Core tubes at approximate one-foot intervals by the ESP field geologist while wearing nitrile disposable gloves. Each sample was placed in a sealed plastic bag and then kept in a warm area for approximately 10 to 15 minutes prior to measuring volatile organic compound (VOC) levels in the head space with the PID. The maximum PID readings in each of the borings ranged from 0.3 to 1.3 parts per million (ppm) (Table 1).

Eight soil samples were selected for laboratory analysis, as listed in Table 2. For each selected sample, an approximate 10-gram soil sample was collected from the sample bag using a Terra CoreTM sampler and placed into a laboratory-supplied 40-milliliter volatile organic analysis (VOA) vial containing methanol. Once sealed, the vial was labeled with the sample identification number and then shaken vigorously for about one minute. The samples were packed on ice and sent via overnight delivery to RED Lab, LLC (RED Lab), located in Wilmington, North Carolina, following proper chain-of-custody procedures (Appendix C).

RED Lab used a QED Hydrocarbon Analyzer to quantitatively analyze the soil samples using the ultraviolet fluorescence (UVF) method for benzene, toluene, ethylbenzene, and xylene (BTEX); gasoline range organics (GRO); diesel range organics (DRO); total petroleum hydrocarbons (TPH); total aromatics; polycyclic aromatic hydrocarbons (PAHs); and benzo(a)pyrene (BaP).

4.4 Groundwater

Groundwater was not encountered in the 10 borings.

5.0 RESULTS

5.1 Geophysics

The EM61 early time gate data show the response from both shallow and deeper metallic objects (Figure 3). The differential response reduces the effect of shallow anomalies and emphasizes anomalies from larger and more deeply buried metallic objects, such as USTs (Figure 4). Our evaluation of the differential response indicated the anomalies were caused by known site features.

The EM61 early time gate response and differential response are shown on the plan sheet on Figures 5 and 6, respectively.

5.2 Sample Data

The soil sample UVF hydrocarbon analysis results for BTEX, GRO, DRO, and PAHs are presented in Table 2. The maximum values of GRO and DRO per boring are shown on Figure 8. The RED Lab laboratory report, which also includes results for TPH, total aromatics, and BaP, is provided in Appendix B. Values are provided in milligrams per kilogram (mg/kg or ppm).

5.3 Sample Observations

The results of the laboratory testing indicate that DRO was detected in 6 samples (ranging from 0.63 to 34.8 ppm) but below the NCDEQ action level for DRO of 100 ppm. BTEX, GRO, and BaP values were below the laboratory detection limits for the 8 samples tested (Table 2). PAHs were detected in one sample (B85-7, S1) with a value of 0.92 ppm.

6.0 CONCLUSIONS

The results of the Phase II investigation for Parcel 85 of NCDOT Project R-2577A indicates that there is no evidence for abandoned USTs in the study area. Laboratory testing detected DRO petroleum compounds in 6 of the 8 soil samples tested but the readings were less than the NCDEQ action level for DRO. The PID readings during sampling ranged from 0.1 to 1.3 ppm.

7.0 **RECOMMENDATIONS**

No limitations on construction activities or special handling of excavated soil are recommended for the study area on Parcel 85. Groundwater was not encountered in the upper 10 feet in the study area. Direct-push boring refusal from apparent weathered bedrock was encountered at depths from 1.8 to 7.0 feet bgs; this may be an issue in areas of planned cut during construction.

8.0 LIMITATIONS

ESP's professional services have been performed, findings obtained, and recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. ESP is not responsible for the independent conclusions, opinions, or recommendations made by others based on the data presented in this report.

The passage of time may result in a change in the environmental characteristics at this site and surrounding properties. ESP does not warrant against future operations or conditions, or against operations or conditions present of a type or at a location not investigated. ESP does not assume responsibility for other environmental issues that may be associated with the subject site.

TABLES

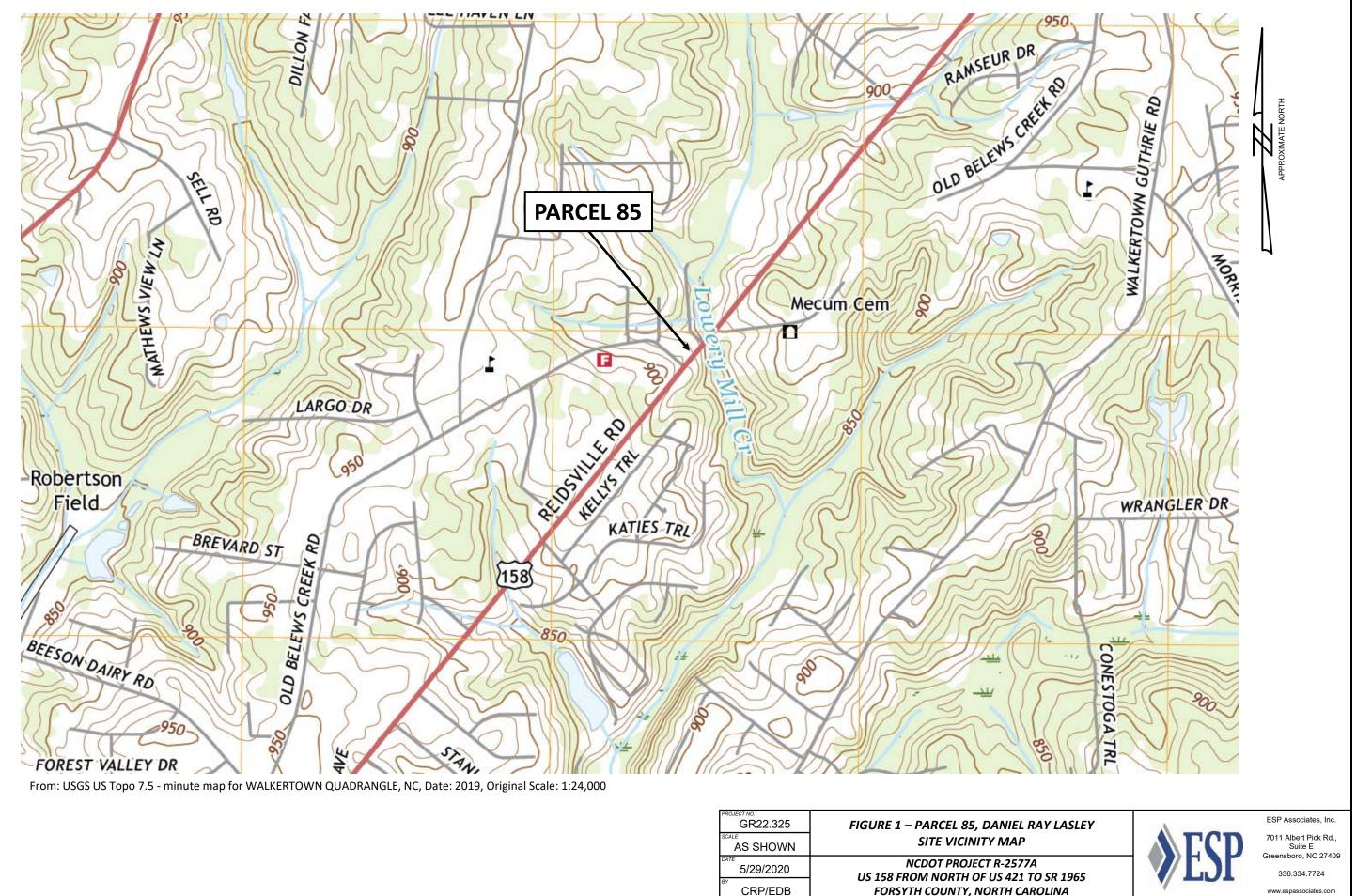
Boring	Sample Depth Range with PID > 10 ppm (feet bgs)	Maximum PID Reading (ppm) and Sample Depth (feet bgs)
B85-1	none	0.6 (3.0-3.5)
B85-2	none	0.4 (1.0-1.5)
B85-3	none	0.3 (2.0-2.5)
B85-4	none	0.6 (1.0-1.5)
B85-5	none	0.4 (1.0-1.5)
B85-6	none	0.4 (2.0-4.5)
B85-7	none	0.6 (1.0-1.5)
B85-8	none	0.8 (6.0-6.5)
B85-9	none	0.8 (7.0-7.5)
B85-10	none	1.3 (2.0-2.5)

TABLE 1SOIL SAMPLE PID READINGS

Boring	Sample ID (depth in feet bgs)	Date Collected	BTEX (C6-C9) (mg/kg)	GRO (C5-C10) (mg/kg)	DRO (C10-C35) (mg/kg)	PAHs (mg/kg)
B85-1	S3 (3.0-3.5)	5/14/20	<0.44	<0.44	1.1	< 0.14
B85-2	S1 (1.0-1.5)	5/14/20	<0.52	< 0.52	0.76	<0.17
B85-4	S1 (1.0-1.5)	5/14/20	<0.52	<0.52	<0.52	<0.17
B85-5	S1 (1.0-1.5)	5/14/20	<0.52	< 0.52	0.63	< 0.17
B85-7	S1 (1.0-1.5)	5/14/20	<0.5	<0.5	34.8	0.92
B85-8	S6 (6.0-6.5)	5/14/20	<0.44	<0.44	1.7	<0.14
B85-9	S7 (7.0-7.5)	5/14/20	<0.53	<0.53	0.9	<0.17
B85-10	S6 (6.0-6.5)	5/14/20	<0.5	<0.5	<0.5	<0.16

TABLE 2SOIL SAMPLE UVF RESULTS SUMMARY

FIGURES



PROJECT NO. GR22.325 SCALE AS SHOWN	FIGURE 1 – PARCEL 85, D. SITE VICINITY
^{DATE} 5/29/2020	NCDOT PROJECT US 158 FROM NORTH OF U
BY CRP/EDB	FORSYTH COUNTY, NO

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A. Photograph from northeast corner, looking southwest.



C. Photograph from west corner, looking east.



B. Photograph from south end, looking north.



D. Photograph of collecting hand auger samples at Boring B85-1.

FIGURE 2 – PARCEL 85, DA
SITE PHOTOGI
NCDOT PROJECT US 158 FROM NORTH OF L
FORSYTH COUNTY, NOI

DANIEL RAY LASLEY GRAPHS T R-2577A

US 421 TO SR 1965 ORTH CAROLINA

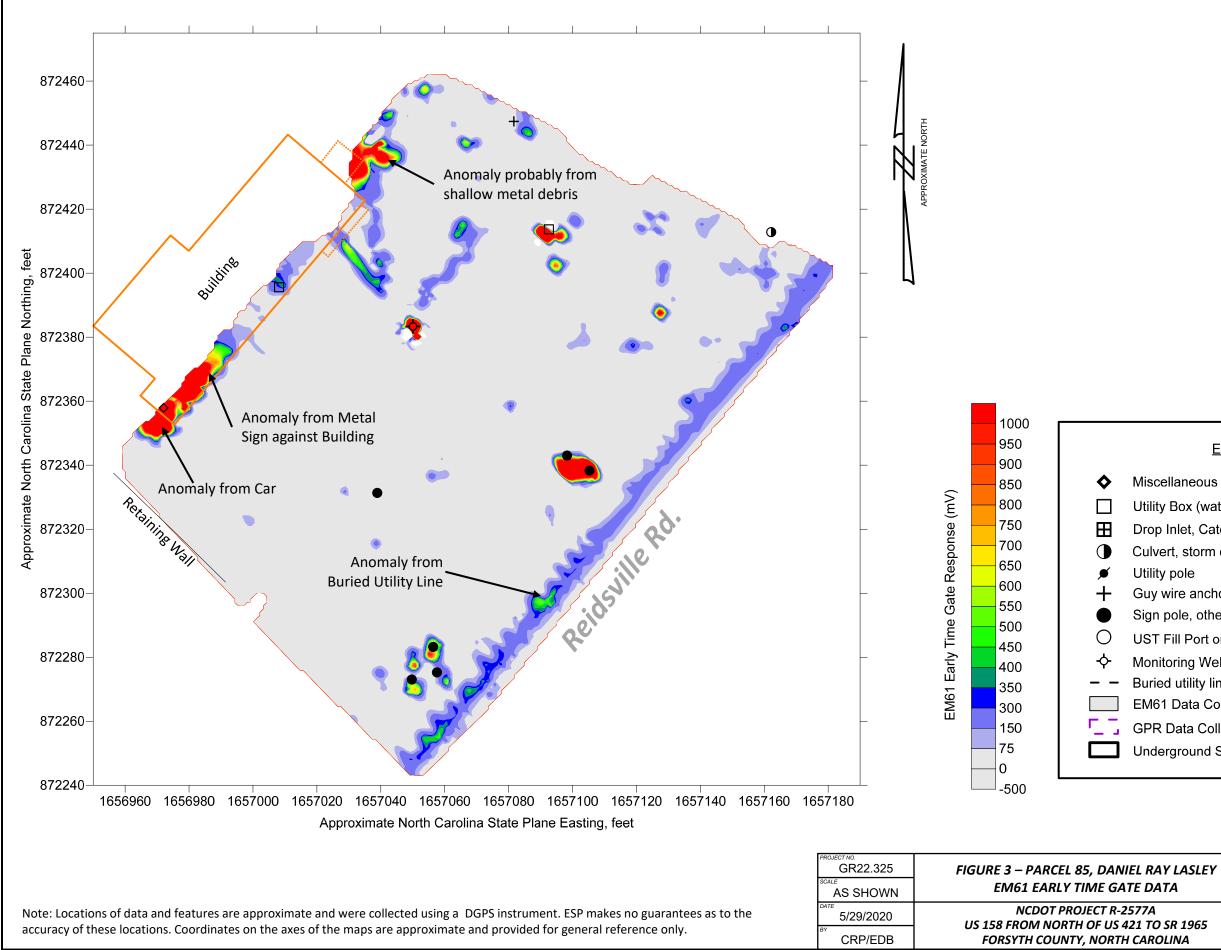


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EXPLANATION

- Miscellaneous metal object (pipe, debris, etc.)
- Utility Box (water meter, electrical outlet, etc.)
- Drop Inlet, Catch Basin, Manhole
- Culvert, storm drain pipe
- Utility pole
- Guy wire anchor
- Sign pole, other pole
- UST Fill Port or Valve Cover
- Monitoring Well
- Buried utility line (marked by others)
- EM61 Data Collection Areas
- GPR Data Collection Areas
- Underground Storage Tank

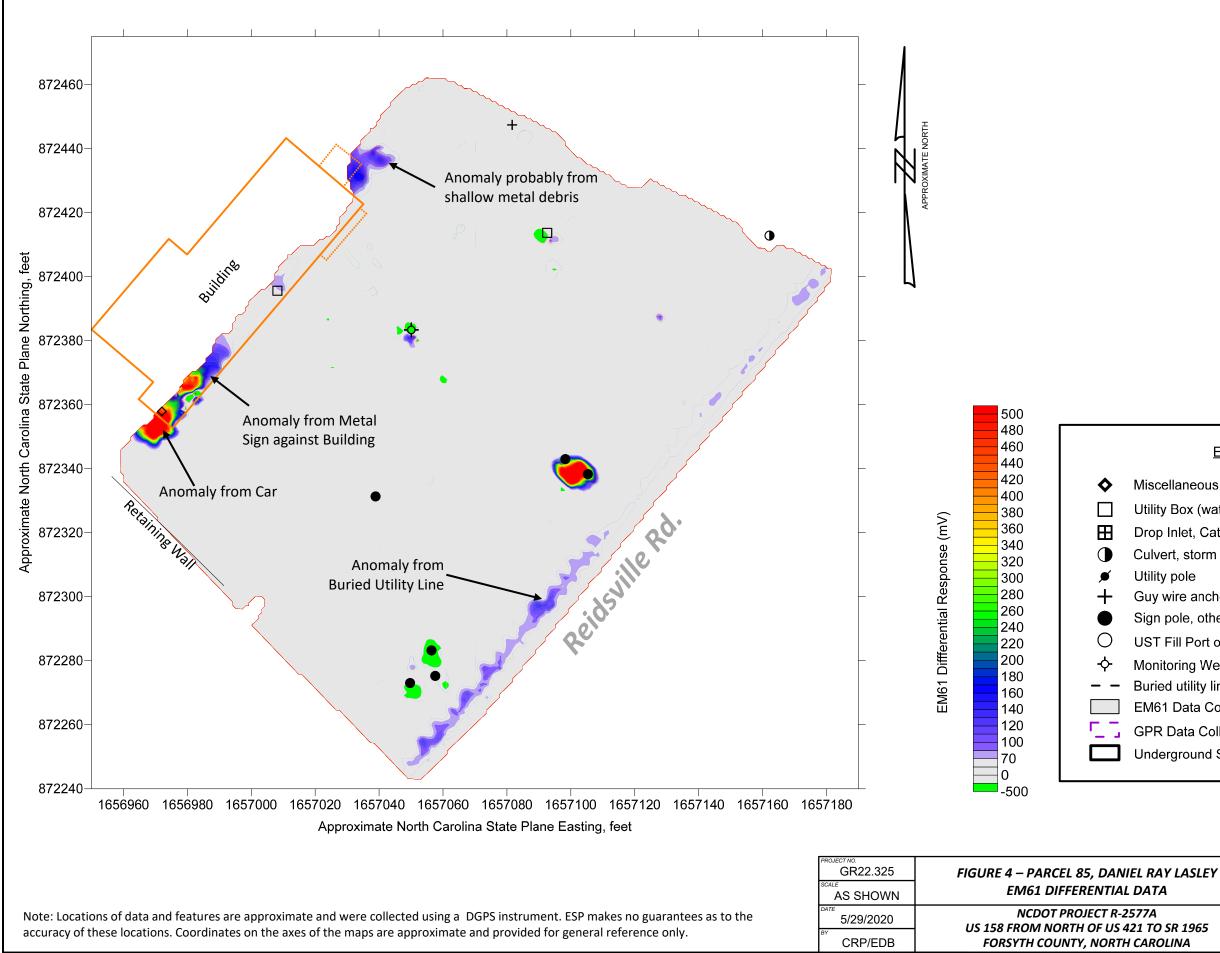


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- EM61 Data Collection Areas
- GPR Data Collection Areas
- Underground Storage Tank

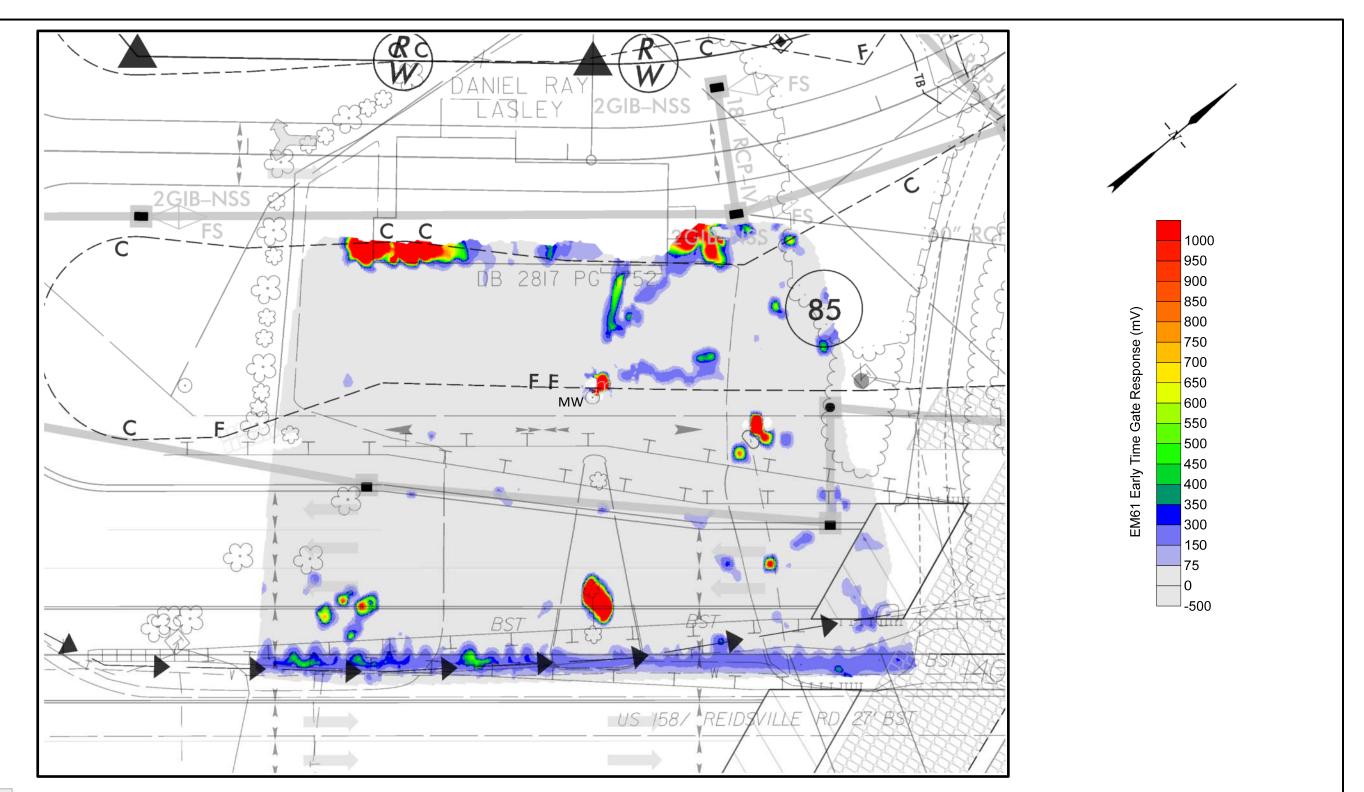


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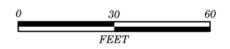
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- -W R-2577A_rdy_HISTORIC.dgn
- -W R-2577A_rdy_map_owner_no.dgn
- –MR-2577A_rdy_row.dgn
- -M R-2577A_rdy_row_AG.dgn
- -W R-2577A_rdy_row_SB.dgn
- R-2577A_rdy_ss.dgn



See Figure	9 for	explanation	of
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PROJECT NO. GR22.325	FIGURE 5 – PARCEL 85, DA
scale 1" = 30'	EM61 EARLY TIME GATE DA
^{DATE} 5/29/2020	NCDOT PROJECT US 158 FROM NORTH OF U
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of symbols and line types

ANIEL RAY LASLEY ATA ON PLAN SHEET

⁻ R-2577A US 421 TO SR 1965 DRTH CAROLINA

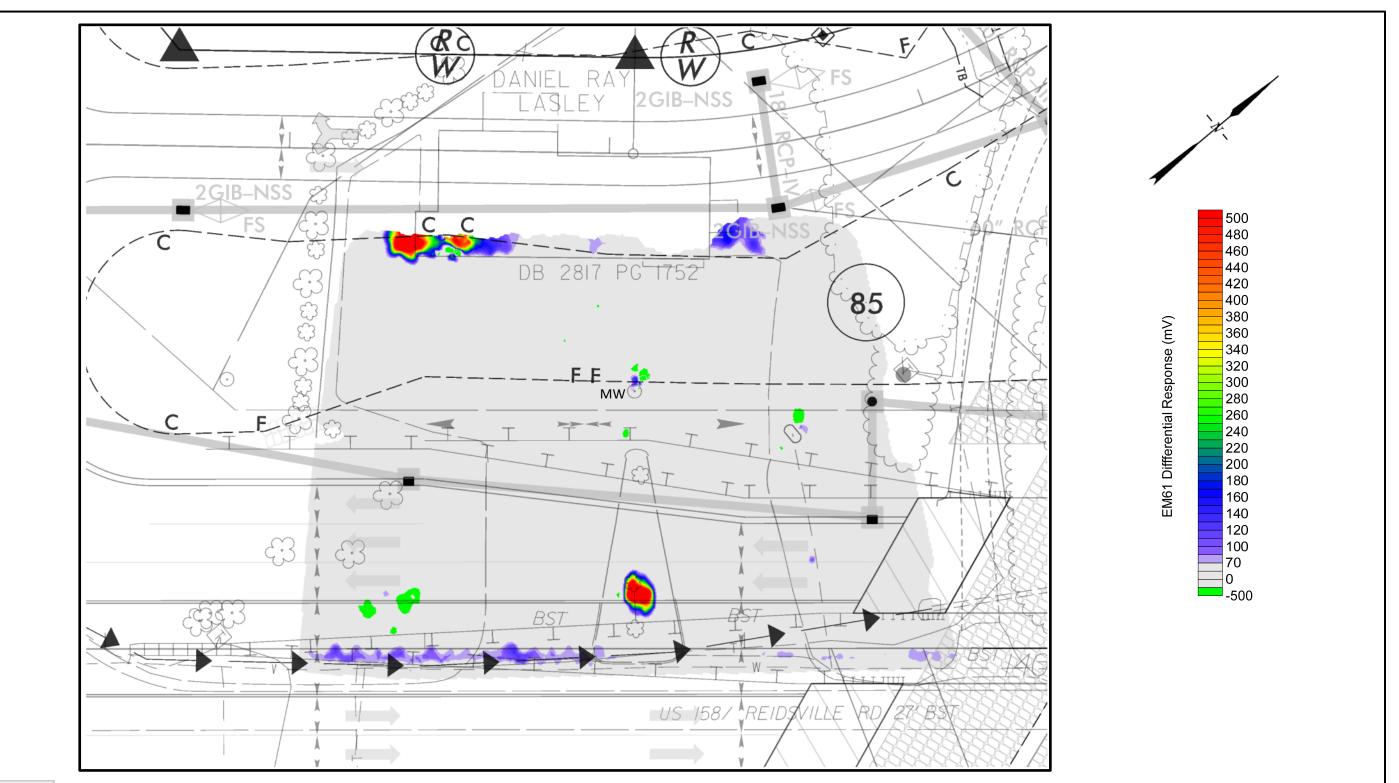


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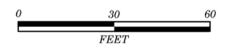
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- R-2577A_rdy_row_AG.dgn
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See Figure 9 for explanation of symbols and line types

PROJECT NO. GR22.325	FIGURE 6 – PARCEL 85, DA
^{SCALE} 1" = 30'	EM61 DIFFERENTIAL DATA
^{DATE} 5/29/2020	NCDOT PROJECT US 158 FROM NORTH OF U
BY CRP/EDB	FORSYTH COUNTY, NOR

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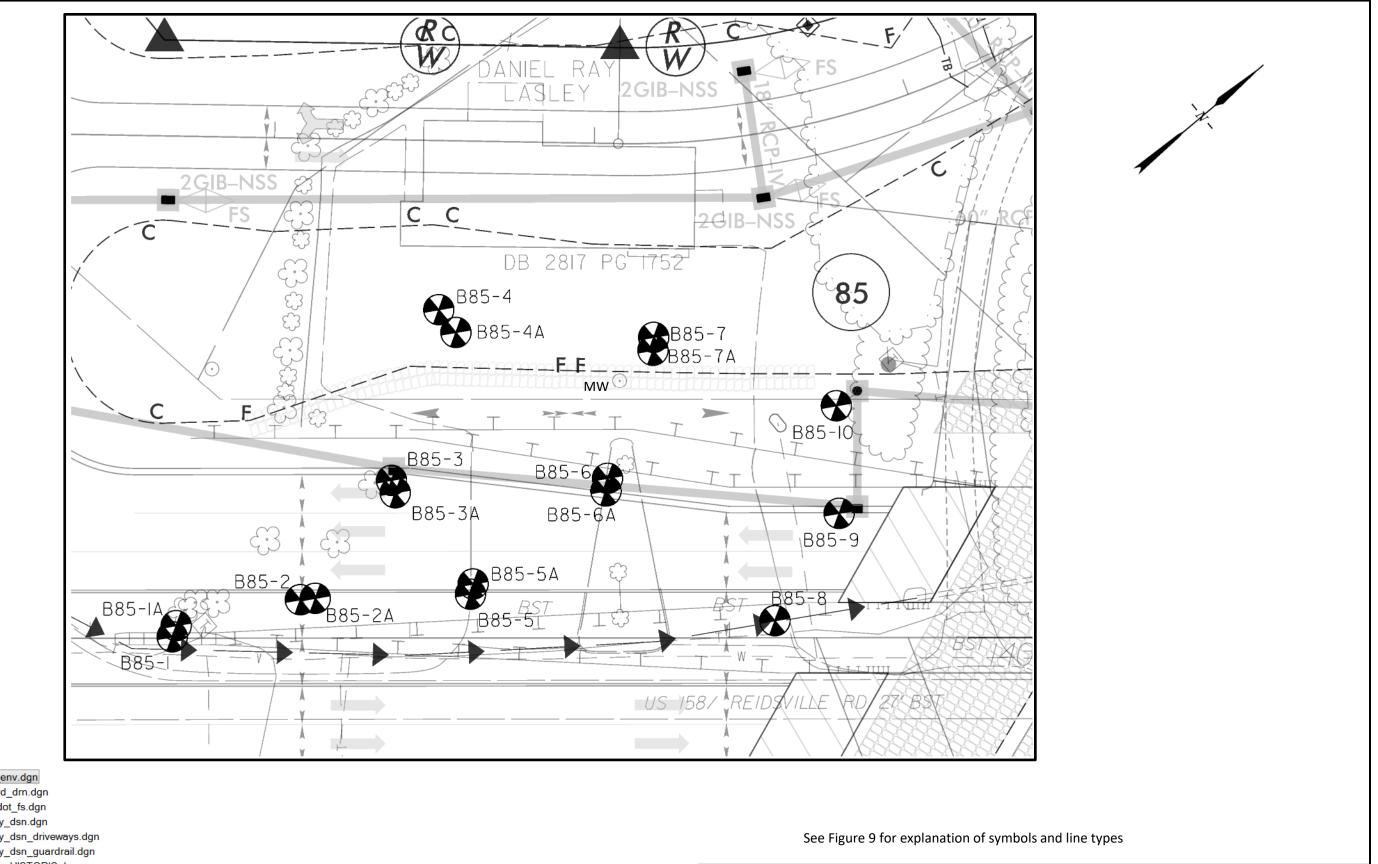


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- -MR-2577A_rdy_row.dgn
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- -W R-2577A_rdy_row_SB.dgn
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PROJECT NO. GR22.325	FIGURE 7 – PARCEL 85, D
^{SCALE} 1" = 30'	BORING LOCATIONS O
^{DATE} 5/29/2020	NCDOT PROJECT US 158 FROM NORTH OF L
CRP/EDB	FORSYTH COUNTY, NO

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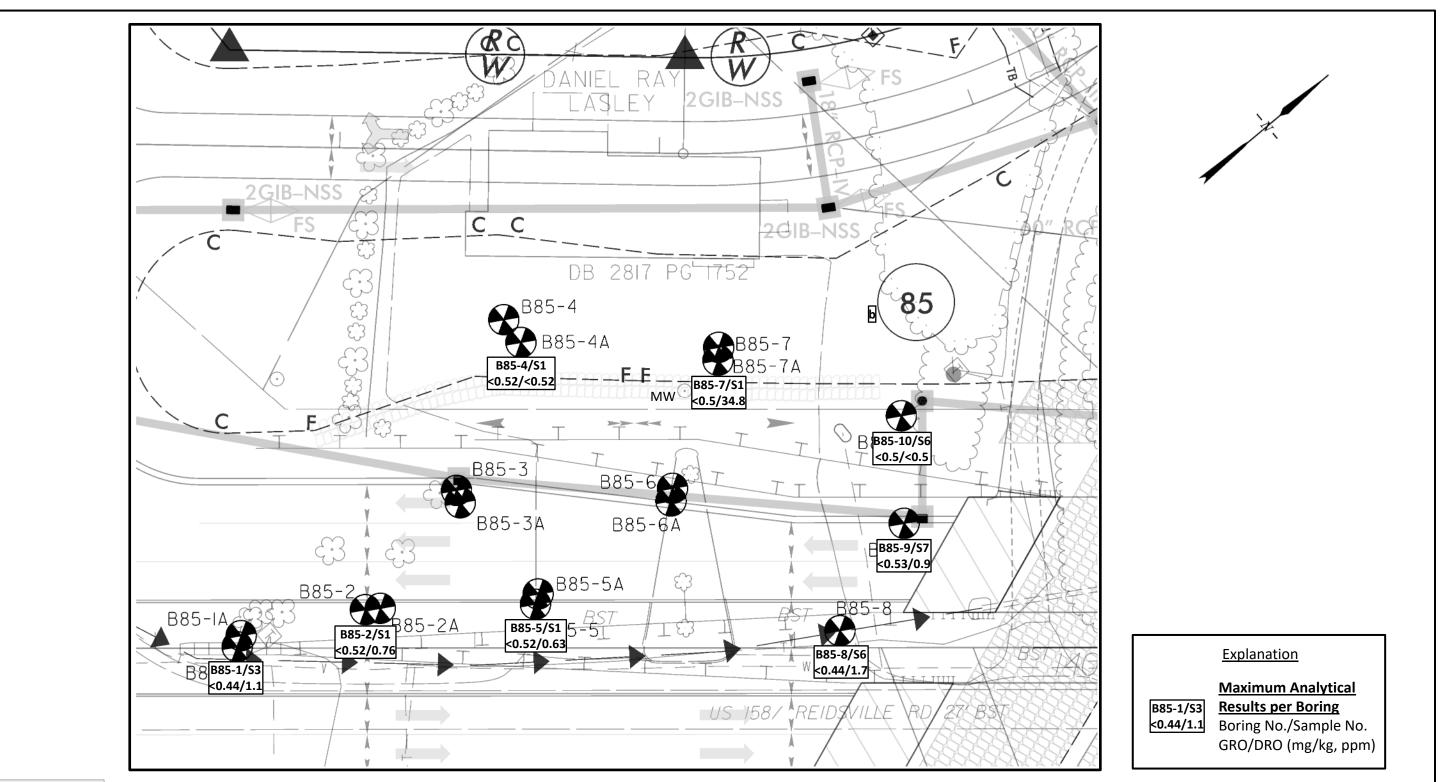


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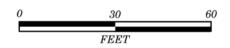
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- R-2577A_rdy_row_AG.dgn
- R-2577A_rdy_row_SB.dgn
- R-2577A_rdy_ss.dgn



See Figure 9 for explanation of symbols and line types

PROJECT NO. GR22.325	FIGURE 8 – PARCEL 85, D
scale 1" = 30'	SOIL ANALYTICAL RESULT.
^{DATE} 5/29/2020	NCDOT PROJECT
BY CRP/EDB	FORSYTH COUNTY, NOR

DANIEL RAY LASLEY TS ON PLAN SHEET

R-2577A US 421 TO SR 1965 RTH CAROLINA



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er Zone 2	Existing Cable Guiderail		U/G Telephone Cable LOS D (S.U.E.*)		U/G Tank;
/ Arrow	Proposed Cable Guiderail		U/G Telephone Conduit LOS B (S.U.E.*)		Undergrour
appearing Stream	Equality Symbol		U/G Telephone Conduit LOS C (S.U.E.*)		A/G Tank;
	Present Persevel	- ****	U/G Telephone Conduit LOS D (S.U.E.*)		Geoenviror
	VEGETATION:		U/G Fiber Optics Cable LOS B (S.U.E.*)		U/G Test H
	* Single Tree				Abandoned
oposed Lateral, Tail, Head Ditch — 🚬	Single Shrub	- o	U/G Fiber Optics Cable LOS C (S.U.E.*)		End of Info
alse Sump ————————————————————————————————————			U/G Fiber Optics Cable LOS D (S.U.E.*)	1 50	

BR0JECT NO. GR22.325	FIGURE 9
scale N/A	LEGEND FOR PLAN SHE
^{DATE} 5/29/2020	NCDOT PROJECT R- US 158 FROM NORTH OF US
BY CRP/EDB	FORSYTH COUNTY, NORT

	PROJECT REFERENCE NO.	SHEET NO.
	0	
	Ø	
	¢	
LOS B (S.U.E*)	s -	
LOS C (S.U.E*)		
LOS D (S.U.E*)	A/G Wa	ter
Nater Line		
	_	
	⊗	
Hand Hole	——————————————————————————————————————	
LOS B (S.U.E.*)		
LOS C (S.U.E.*)		
LOS D (S.U.E.*)		
Cable LOS B (S.U.E.	,	
Cable LOS C (S.U.E. Cable LOS D (S.U.E		
Cobie 103 D (3.0.E	.)	
	>	
	\$	
OS B (S.U.E.*)		
OS C (S.U.E.*) OS D (S.U.E.*)		
Gas Line	A/G G:	15
:		
Manhole		
Cleanout	÷	
wer Line	A/G Sanitary	Sewer
Sanitary Sewer		
Line LOS B (S.U.E.*) Line LOS C (S.U.E.*)		
Line LOS D (S.U.E.*		
	,	
	•	
Base	0	
Dbject	©	
nal Box	II	
U/G Line LOS B (S.U	J.E.*)	
r, Gas, Oil		
orage Tank, Approx. L	oc (ust	
r, Gas, Oil		
al Boring		
OS A (S.U.E.*)	. •	
ording to Utility Recor		
on	E.O	.1.

EET FIGURES

2-2577A 5 421 TO SR 1965 TH CAROLINA



ESP Associates, Inc.

7011 Albert Pick Rd., Suite E Greensboro, NC 27409

336.334.7724

www.espassociates.com

APPENDIX A SOIL BORING LOGS

	FSP			FIELD BORING LOG	BORING NO.
	LJI	NODOTO			
	ECT NAME:		2577A Phase	⇒ II PROJ. NO.: <u>GR22.325</u> r intersection with Belews Creek Road	B85-1
	OF BORING		Hand Auge		: 1 of 1
	ING FIRM:		SAEDACC		
DRILL			Brian Ewin		
DRILL	RIG:		N/A	LOGGED BY: R. Pastrana COMMENT	
(ft)	щ	(#)	ŋ		
Ŧ	SAMPLE NO.	MPL		FIELD CLASSIFICATION AND	REMARKS
DEPTH (ft)	SAI	SAMPLE DEPTH (ft)	PID READING (ppm)	PHYSICAL DESCRIPTION	
				0.0' - 2.0' - Crushed ABC Stone (CR6)	Core 1 Rec N/A
				H	and Auger 0'-3.5'
1	S-1	1.0-1.5	0.1	B	35-1A - Offset 5'
					Refusal at 3.0'
-					
2	S-2	2.0-2.5	0.2	2.0' - 3.5' - Red-Brown, Sandy SILT, Moist	
-					
3	S-3	3.0-3.5	0.6		-
				3.5' - Refusal	
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14			1		
15			1		

1	FSP			FIELD BORING LOG	BORING NO.
			0577A Dhase		B85-2
	IECT NAME:		feet NE of B		D03-2
	OF BORING		Direct Pus		1 of 1
	ING FIRM:		SAEDACC	DATE FINISHED: 5/14/20 TOTAL DEPTH:	
DRILL			Brian Ewin		
DRILL	1		GeoProbe 72	2DT LOGGED BY: <u>R. Pastrana</u> COMMENT:	
DЕРТН (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
-				0.0' - 0.5' - Topsoil 0.5' - 2.0' - Red-Brown to Brown, Clayey and Sandy SILT, Dry	Core 1 Rec 2.0'/5.0'
				B8	5-2A - Offset 5'
1	S-1	1.0-1.5	0.4		Refusal at 2.0'
2				2.0' - Refusal	
3					
4					
5					
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6					
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14					
15					

	FCP			FIELD BORING LOG		BORING NO.
	LJI					
			2577A Phase			B85-3
	TION: OF BORING		Direct Pus	ar proposed drop inlet h DATE STARTED: 5/14/20	SHEET:	1 of 1
	ING FIRM:		SAEDACC		TOTAL DEPTH:	
DRILL			Brian Ewin		DEPTH TO GW:	
DRILL	RIG:	(GeoProbe 72		COMMENT:	
(ft)	щ	Е (ft)	Ŋ			
DEPTH	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION		REMARKS
•				0.0' - 0.3' - Topsoil 0.3' - 3.0' - Brown to Dark Brown, Sandy SILT, Micaceous, Moist		Core 1 Rec 3.0'/5.0'
1	S-1	1.0-1.5	0.2		ref	empt to punch through usal depth with point tip Penetration
2	S-2	2.0-2.5	0.3		B8	5-3A - Offset 5' Refusal at 3.0'
• •						
_3				3.0' - Refusal		
4						
5						
_ U 						
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	ESP			FIELD BORING LOG	BORING NO.
PROJ LOCA	ECT NAME:		ner of buildin		B85-4
	OF BORING		Direct Pus	-	[] [: 1 of 1
	ING FIRM:	·	SAEDACC		
DRILL			Brian Ewin	g SAMPLE METHOD: 5' Macrocore DEPTH TO GW	
DRILL	RIG:	(GeoProbe 72	2DT LOGGED BY: R. Pastrana COMMENT	Γ:
(ft)	щ	-Е	У С		
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
				0.0' - 0.3' - Gravel	Core 1 Rec 3.0'/5.0'
				0.3' - 3.5' - Red-Brown to White, Black, and Brown, Silty SAND, Dry B	85-4 - Refusal at 1.8'
1	S-1	1.0-1.5	0.6		
				В	85-4A - Offset 5' Refusal at 3.5'
					Rec 3.0'/3.5'
2	S-2	2.0-2.5	0.2		
3	S-3	3.0-3.5	0.2		
_	00	0.0 0.0	0.2		
				3.5' - Refusal	
4					
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5					-
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7					
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	ESP			FIELD BORING LOG	BORING NO.
1					
PROJ LOCA	ECT NAME:		2577A Phase e of S entran		B85-5
	OF BORING		Direct Pus		: 1 of 1
DRILL	ING FIRM:		SAEDACC		
DRILL			Brian Ewin		
DRILL	1		GeoProbe 72	2DT LOGGED BY: <u>R. Pastrana</u> COMMENT	-
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
				0.0' - 0.4' - Asphalt 0.4- 2.2' - Red-Brown to Brown, White, and Black, Silty SAND, Dry	Core 1 Rec 2.0'/5.0'
				B	85-5A - Offset 5'
1	S-1	1.0-1.5	0.4		Refusal at 2.0'
2					
				2.2' - Refusal	-
-					
3					
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	ESP			FIELD BORING LOG	BORING NO.
	IECT NAME:	NCDOT R-2 S side of S	2577A Phase entrance nea	r highway	B85-6
DRILI DRILI	OF BORING LING FIRM: LER: LRIG:		Direct Pus SAEDACC Brian Ewin GeoProbe 72	O DATE FINISHED: 5/14/20 TOTAL DEPTH g SAMPLE METHOD: 5' Macrocore DEPTH TO GW	: 5.0 ft : N/A ft
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
• •	S-1	1.0-1.5	0.2	0.0' - 0.4' - Topsoil and Gravel 0.4- 5.0' - Dark Brown to Black and White, Sandy SILT, Moist to Dry Bi	Core 1 Rec 4.4'/5.0' 85-6A - Offset 5' Refusal at 5.0'
	S-2	2.0-2.5	0.4		
2 	S-3	3.0-3.5	0.4		
4	S-4	4.0-4.5	0.4		
5				5.0' - Refusal	
6					
_7 					
<u>8</u>					
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<u>11</u>					
<u>12</u>				Image: Control of the second	
<u>13</u>					
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	FCP			FIELD BORING LOG	BORING NO.
	LJI				
PROJ LOCA	ECT NAME:			II PROJ. NO.: <u>GR22.325</u> nd NE corner of building, near former dispenser location	B85-7
	OF BORING		Direct Pus		: 1 of 1
	ING FIRM:		SAEDACC		
DRILL			Brian Ewin		
DRILL	RIG:		GeoProbe 72	2DT LOGGED BY: <u>R. Pastrana</u> COMMENT	:
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
-				0.0' - 0.4' - Asphalt	Core 1 Rec 1.9'/5.0'
				0.4' - 2.1' - Red-Brown, Clayey SILT, Moist	85-6A - Offset 5'
1	S-1	1.0-1.5	0.6		Refusal at 2.0'
2				2.1' - Refusal	
3					
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	ESP			FIELD BORING LOG	BORING NO.
		NCDOT R- N side of N	2577A Phase entrance		B85-8
LOCATION: TYPE OF BORING DRILLING FIRM: DRILLER: DRILL RIG:			Direct Pus SAEDACC Brian Ewir GeoProbe 72	O DATE FINISHED: 5/14/20 TOTAL DEP Ng SAMPLE METHOD: 5' Macrocore DEPTH TO C	TH: 10.0 ft GW: N/A ft
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
				0.0' - 0.8' - Asphalt and Gravel	Core 1 Rec 4.3'/5.0'
- <u> </u>	S-1	1.0-1.5	0.6	0.8' - 2.0' - Red-Brown to Brown, Sandy SILT, Moist	
2	S-2	2.0-2.5	0.5	2.0' - 10.0' - Brown, White, and Black, Silty SAND, with Rock Fragments, Dry	
3	S-3	3.0-3.5	0.5		
4	S-4	4.0-4.5	0.3		
5	S-5	5.0-5.5	0.7	5.0' - grading to with Layers of Brown, Sandy SILT, Moist	Core 2 Rec 3.9'/5.0' 1st Attempt Rec 2.0'/5.0'
6	S-6	6.0-6.5	0.8		2nd Attempt Rec 3.9'/5.0'
7	S-7	7.0-7.5	0.2		
8	S-8	8.0-8.5	0.5		
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	ESP			FIELD BORING LOG	BORING NO.
PROJ		NCDOT R-	2577A Phase		B85-9
	TION:	About 40 fe	eet N of B85-8	B, near proposed drop inlet	0000
	OF BORING	i	Direct Pus		ET: 1 of 1
	ING FIRM:		SAEDACC		
DRILL DRILL			Brian Ewin GeoProbe 72		
-	-				
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
				0.0' -0.4' - Topsoil 0.4' - 10.0' - Red-Brown, Sandy SILT, With Layers of Brown, White, and Black,	Core 1 Rec 3.2'/5.0'
·				Silty SAND, Rock Fragments, Dry to Moist	1st Attempt Rec 1.8'/5.0'
_1	S-1	1.0-1.5	0.3		2nd Attempt Rec 3.2'/5.0'
2	S-2	2.0-2.5	0.3		
•					
3	S-3	3.0-3.5	0.4		
4					
5	S-5	5.0-5.5	0.6		Core 2 Rec 4.2'/5.0'
•					1st Attempt Rec 2.1'/5.0'
6	S-6	6.0-6.5	0.4		2nd Attempt Rec 4.2'/5.0'
7	S-7	7.0-7.5	0.8		
		1.0 1.0			
8	S-8	8.0-8.5	0.5		
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	FCP			FIELD BORING LOG	BORING NO.
					D05 10
	ECT NAME:			II PROJ. NO.: GR22.325 nned drop inlet, in vicinity of former tank pit PROJ. NO.: GR22.325	B85-10
	OF BORING		t Push & Har		T: 1 of 1
	ING FIRM:	Diroc	SAEDACC		
DRILL	ER:		Brian Ewin	g SAMPLE METHOD: 5' Macrocore DEPTH TO G	
DRILL	. RIG:	(GeoProbe 72	2DT LOGGED BY: R. Pastrana COMMEN	T:
DEPTH (ft)	SAMPLE NO.	SAMPLE DEPTH (ft)	PID READING (ppm)	FIELD CLASSIFICATION AND PHYSICAL DESCRIPTION	REMARKS
-				0.0' -0.2' - Topsoil 0.2' - 7.0' - Red-Brown, Sandy SILT with Layers of Black, White, and Brown,	Core 1 Rec N/A
1	S-1	1.0-1.5	0.7	Silty SAND, Micaceous, Moist to Dry	Ist Attempt Rec 0.6'/5.0' 2nd Attempt Rec 1.2'/5.0'
2	S-2	2.0-2.5	1.3		3rd Attempt Hand Auger 0-5'
-					
3	S-3	3.0-3.5	0.8		
-					
4	S-4	4.0-4.5	0.8		
-					
_5	S-5	5.0-5.5	0.7		Core 2 Rec 1.5'/5.0'
					1st Attempt Rec 0.2'/5.0'
6	S-6	6.0-6.5	1.2		2nd Attempt Rec 1.5'/5.0'
.					
7				7.0' - Refusal	
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APPENDIX B

RED LAB LABORATORY TESTING REPORT

Q	ED		E				B					\int	<u>QROS</u>		
				Hydroca	arbon An	alysis R	esults								
Client: Address	ESP s: 7011 Albert Pick Rd Ste E Greensboro, NC 27409								Samples taken Samples extracted Samples analysed				5/13 - 5/14/2020 5/13 - 5/14/2020 Monday, May 18, 2020		
Contact:	Ned Billington									Op	erator		Harry Wooten		
Project:	Contact: Ned Billington Operator Harry Wooten Project: GR22.325														
							F03640			F03640					
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match		
										% light	% mid	% heavy			
s	B85-1 , S3	17.6	<0.44	<0.44	1.1	1.1	0.6	<0.14	<0.018	0	87.4	12.6	Deg.PHC 77%,(FCM)		
S	B85-2, S1	21.0		<0.52	0.76	0.76	0.39	<0.17	<0.021	0	87.4	12.6	V.Deg.PHC 92.6%,(FCM)		
s	B85-4 , S1	21.0		<0.52	<0.52	<0.52	<0.1	<0.17	<0.021	0	-	-	PHC not detected		
S	B85-5 , S1	20.8		<0.52		0.63	0.33		<0.021	0			Road Tar 87.1%,(FCM)		
S	B85-7 , S1	19.8					17.8	0.92	<0.02	0			V.Deg.PHC 77.8%,(FCM)		
S	B85-8 , S6	17.6		<0.44	1.7	1.7	0.84		<0.018	-			V.Deg.PHC 90%,(FCM)		
S	B85-9 , S7	21.4	<0.53	<0.53	0.9	0.9	0.43		<0.021	0			Road Tar 89.1%,(FCM)		
S	B85-10 , S6	19.8	<0.5	<0.5	<0.5	<0.5	<0.1	<0.16	<0.02	0	0	0	PHC not detected,(BO)		
		tial Calibrator							Final F				101.5 %		
· ·	Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library														

(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

APPENDIX C CHAIN-OF-CUSTODY FORM

	ESP							RED Lab,	LLC			
Address:	Greensbero Ned Billington GR22.325							5598 Ma	rvin K Mos	s Lane		
									MARBIONC Bldg, Suite 2003			
Contact:					Wilmingt	Wilmington, NC 28409						
Project Ref.:			REDLAB						Each UVF sample will be analyzed fo			
Email:	ALF	ile		Construction of the local division of the lo			and Press and a second s	8	GRO, DRO, T ind BaP. Stan			
Phone #:	R. Pastrana		RAPID ENVIRONMENTAL DIAGNOSTICS						Analyses are for BTEX and Chlorina Solvents: VC, 1,1 DCE, 1,2 cis DCE, 1			
Collected by												
Collected by:			CHAIN	OF CU		trans DCE, TCE, and PCE. Specify ta analytes in the space provided belo						
Sample Collection	TAT Rec	nuested	Analysi			Letter MS"			[T		
Date/Time	24 Hour	48 Hour	UVF	GC	Initials	J J	Sample ID	Total Wt.	Tare Wt.	Sample		
5/14/20	Lindai	V	V		EPB	B85-1,53	1	57.8	45.3	12.5		
					OFC	885-2,51		54.2	43.7	10.5		
·						885-4,51		55.3	44.8	10.5		
	1					B85-5, 51		54.7	44.1	10.6		
						385-7,51	*	55.4	44,3	11.1		
						B85-8,56		56.9	44.4	12-8		
5						885-9,57		54.2	43,9	10.3		
					1							
						885-10,56	J	\$6.0	44,9	11,1		
COMMENTS/REQU	ESTS: Chated 2	invples s	separate	74 			NALYTES:					
сомментs/requ Ж Report Бга	ESTS:	imples s	separat	71 1	Accept	885-10,56	NALYTES: Date/Time	\$6.0		11,1		
сомментя/requ Ж Report Бга	ESTS: cketed 59	imples s	ieparate 5/15/20	an San Sanatan	and the second second	TARGET GC/UVF A	Date/Time	\$6.0	44,9	11.1		
COMMENTS/REQU * Report bra Relingu	ESTS: cketed 59			an San Sanatan	Accep	TARGET GC/UVF A	Date/Time	\$6.0	44,9	ONLY		

and the second

APPENDIX D 2003 UST CLOSURE REPORT FIGURE 2 2005 LSA REPORT FIGURE 2

