Preliminary Site Assessment Report

November 14, 2018 (Updated November 20, 2018) WBS Element: 44625.1.1 State Project: U-5888 Haywood County

at

Rebecca J. Robinson Property Parcel #022

808 N Main Street, Waynesville, NC 28786

PIN #: 8615-59-8558 Facility ID No.: 00-0-0000017830

Groundwater Incident No.: 18816

Prepared For:

Mr. Dennis G. Li, Ph.D NCDOT, Geotechnical Engineering Unit GeoEnvironmental Section 1589 Mail Service Center Raleigh, NC 27699-1589

Prepared By:

Seramur & Associates, PC 165 Knoll Drive Boone, NC 28607

Keith C. Seramur, P.G.

Kes C Seramu

TABLE OF CONTENTS

SECTION	PAGE
1.0 INTRODUCTION	
1.1 General Site Background Information	
2.0 SCOPE OF WORK	
2.1 Background Research	
2.2 Plate 1 – Photo of Parcel #022	
2.3 Geophysical Surveys	
2.4 Soil Sampling and Analyses	
3.0 RESULTS OF INVESTIGATION	
3.1 Geophysical Surveys	
3.2 Soil Borings, Sampling and Laboratory Results	
3.3 Volume and Extent of Soil Contamination	
3.4 Conclusions	
3.5 Recommendations	
Appendix A – Tables and Figures Table 1 – Soil Boring Data Table B-3 – Summary of Soil Sampling Results Figure 1 – Site Location Map Figure 2 – Site Plan Figure 3 – Site Plan with Soil Boring Locations Figure 4 – Site Plan with GPR Transect Locations Figure 5 – GPR Profiles 1-5 Figure 6 – Soil Analytical Results Figure 7 – Cross-Sections A-A` and B-B`	
Annondix R. I aboratory Paparts and Chain of Custody Pagards	

Appendix B – Laboratory Reports and Chain of Custody Records

Appendix C – Documents From NCDEQ Incident Files

1.0 Introduction

1.1 General Site Background Information

Seramur & Associates, PC was contracted to complete a Preliminary Site Assessment (PSA) at:

Rebecca J. Robinson Property
Parcel #022
PIN #: 8615-59-8558
808 N Main Street, Waynesville, NC 28786
Facility ID No.: 00-0-0000017830
Groundwater Incident No.: 18816

This property is located on the southeast side of Main Street between the intersections with Walnut Street and Marshall Street (Figure 1). The property currently operates as a convenience store that sells fuel and as The Water'n Hole, a restaurant and bar. A construction easement runs nearly parallel to Main Street along the northwest side of the property. The northern corner of the property is part of the proposed Right-of-Way (R/W). A Permanent Utility Easement (PUE) is located in the southwest corner of the property (Figure 2). It is our understanding that the proposed R/W and easements are being investigated as part of a traffic circle being built to replace the current intersection.

2.0 Scope of Work

The PSA scope of work included completing a geophysical survey at the property to investigate the potential for underground storage tanks within the proposed R/W and easements. Following the geophysical survey, soil sampling and analyses were performed to assess soil quality and estimate the volume of potentially contaminated soil at the site (Figure 3).

2.1 Background Research

According to Haywood County Tax Administration records, the property is currently owned by Rebecca J. Robinson. A review of historic aerial photographs showed that the property was developed by the 1960's, and perhaps earlier. Haywood County Tax Administration records show the construction records for the property. The gas station and neighboring restaurant are shown as being completed in 1972. The part of the neighboring strip mall on the property is shown as being completed in 1984. The facility number for this property is 00-0-0000017830. The incident number associated with this property is 18816.

A UST Closure Report was obtained from NCDEQ. The report indicates that one 4,000 gallon UST was closed in place by filling it with foam in March of 1998. Because the UST is supposedly partially underneath the building, it could not be removed from its excavation. Soil samples and a groundwater sample were collected during the closure procedure. Soil samples and the groundwater sample were analyzed. Two soil samples and the groundwater sample contained petroleum constituents well above the regulatory limits. A Notice of No Further Action was issued for the site on September 3, 1998. Mr. Garic Williams of the NCDEQ ARO

stated in a phone conversation on November 13, 2018, that this incident file has recently been formally closed.

Seramur and Associates personnel made a pedestrian reconnaissance of the property during the initial site visit on September 25, 2018. The proposed work area was marked with white paint for utility locating purposes. A utility locate request was initiated with the North Carolina 811 system on October 14, 2018, approximately one week before commencing with drilling.

2.2 Plate 1 – Photo of Parcel #022



2.3 Geophysical Surveys

Due to the limited area that the R/W and easements occupy on the property and because of continuous traffic, Seramur & Associates was not able to set up grids for a geophysical survey at Parcel #022. The GPR and magnetometer were used to survey areas that were within the proposed R/W and easements (Figures 4 and 5)

The Magnetometer survey was completed with a MF-1 Fluxgate magnetometer. The MF-1 Fluxgate magnetometer is designed to measure changes in the Earth's magnetic field associated with larger ferrous objects. It does not respond to smaller objects such as nails or wire, but responds well to variations in the Earth's magnetic field produced by manholes, steel pipe, buried drums and tanks. The sensitivity level is well suited for detecting buried USTs at commercial and industrial facilities.

A Ground Penetrating Radar (GPR) survey was completed across the grids using Geophysical Survey Systems, Inc. 400 MHz antenna and a SIR-3000 Single Channel Data Acquisition System with a calibrated survey wheel. The GPR data was downloaded and saved onto a computer. The data from the GPR transects collected during our survey were processed using Radan® software.

2.4 Soil Sampling and Analyses

Carolina Soil Investigations, LLC mobilized to the site on October 24th, 2018 to drill Geoprobe borings and collect soil samples. Our project design called for collecting a shallow and deep soil sample from each boring (Figure 3). The purpose of collecting samples at a depth of ~3.0 feet is to test for petroleum releases related to surface spills and releases from product lines. The purpose of collecting samples at a depth of ~9.0 feet is to test for petroleum releases related to underground storage tanks. Soil samples were collected at other depths within the Geoprobe cores if soil staining or petroleum vapors were observed or if limited core recovery occurred. Soil borings were drilled in the proposed easements located along North Main Street on the west side of the property (Figure 3).

A track-mounted Geoprobe rig was used to drill a total of five soil borings. A new pair of Nitrile gloves was worn while collecting each soil sample. A representative portion of each soil sample was placed in a zip lock bag and allowed to rest for a period of time to allow volatile vapors to accumulate in the headspace of the bag. A calibrated Photoionization detector (PID) was used to screen the headspace in each bag and the concentration of volatile petroleum vapors was measured and recorded (Table 1). The texture and type of soil material in the Geoprobe cores was described and recorded. Table 1 lists the soil boring data including sample number, depth, PID reading, lithology and type of soil material.

Samples were collected and shipped on ice to REDLab, LLC, in Wilmington, NC for laboratory analyses. REDLab analyzed the soil samples for petroleum constituents by Ultra-Violet Fluorescence using a QED HC-1 analyzer. The analytical results are reported as Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) and Total Petroleum as Hydrocarbons (TPH). REDLab provides a hydrocarbon spectrum with each of the sample results. This spectrum is used for a tentative identification of the type of hydrocarbon detected by the analytical method. A hydrocarbon fingerprint is interpreted by REDLab for each sample using a library search of spectra for known hydrocarbon types and concentrations. The laboratory reports and fingerprint spectra are included in Appendix B.

SAPC personnel observed vaults for four monitoring wells during our site visits. Only one of these wells is within the proposed TCE and it has been drawn on the site plan (Figure 2).

3.0 Results of Investigation

Parcel #022 contains a convenience store that sells fuel and a bar and restaurant in the connected building. One UST incident has been reported at the site. NCDEQ reported that this incident file has been closed.

3.1 Geophysical Surveys

Magnetometer Survey

Two magnetic anomalies were identified during the geophysical surveys at Parcel #022. These were a steel monitoring well vault and a magnetic nail that was driven into the asphalt by the surveyors.

GPR Survey

The GPR profiles showed small hyperbolae at the location of underground utilities that lead to the store and restaurant/bar. No evidence of USTs or a UST system was recorded in the R/W or easements by the geophysical surveys.

3.2 Soil Borings, Sampling and Laboratory Results

The soil type at Parcel #022 consisted of a sandy silt saprolite (Table 1). Groundwater was not encountered in any of the soil borings.

Borings B-26 through B-30 were drilled along North Main Street within the easements from the north side of the property towards the south side of the property.

Petroleum constituents were detected in two of the ten soil samples sent to the laboratory (Table B-3). GRO and DRO concentrations were not detected above 2.1 ppm in either of these soil samples.

3.3 Volume and Extent of Soil Contamination

Contaminated soil, defined as GRO concentrations above 50 ppm and DRO concentrations above 100 ppm, was not detected in soil samples collected at Parcel #022.

3.4 Conclusions

No evidence of a UST system was found within the Right-of-Way or easements of Parcel #022 during this PSA.

Laboratory analyses of soil samples collected within the proposed Right-of-Way and easement on Parcel #022 did not detect concentrations of GRO and DRO constituents above their respective action levels.

3.5 Recommendations

SAPC recommends that no further assessment work take place on the property at this time.

Appendix A

Tables and Figures

	Table 1. Soil Boring Data - Parcel #022 - Rebecca J. Robinson Property									
Boring No.	Depth (ft)	Lithology	Soil type	Soil Sample	PID ppm	Comments				
B-26	0.0 to 5.0	Sandy Silt	Saprolite	S-50	N/A	Sample at 3.0 feet.				
B-26	5.0 to 10.0	Sandy Silt	Saprolite	S-51	N/A	Sample at 9.0 feet.				
B-27	0.0 to 5.0	Sandy Silt	Saprolite	S-52	0.7	Sample at 3.0 feet.				
B-27	5.0 to 10.0	Sandy Silt	Saprolite	S-53	5.8	Sample at 9.0 feet.				
B-28	0.0 to 5.0	Sandy Silt	Saprolite	S-54	0.1	Sample at 3.0 feet.				
B-28	5.0 to 10.0	Sandy Silt	Saprolite	S-55	8.0	Sample at 8.5 feet.				
B-29	0.0 to 5.0	Sandy Silt	Saprolite	S-56	0.1	Sample at 3.0 feet.				
B-29	5.0 to 10.0	Sandy Silt	Saprolite	S-57	0.0	Sample at 9.0 feet.				
B-30	0.0 to 5.0	Sandy Silt	Saprolite	S-58	0.1	Sample at 3.0 feet.				
B-30	5.0 to 10.0	Sandy Silt	Saprolite	S-59	0.1	Sample at 8.5 feet.				
*Top 1.0 foot	of each boring	g consists of concrete, grav	el and fill mater	ial.						

Table B-3: Summary of Soil Sampling Results

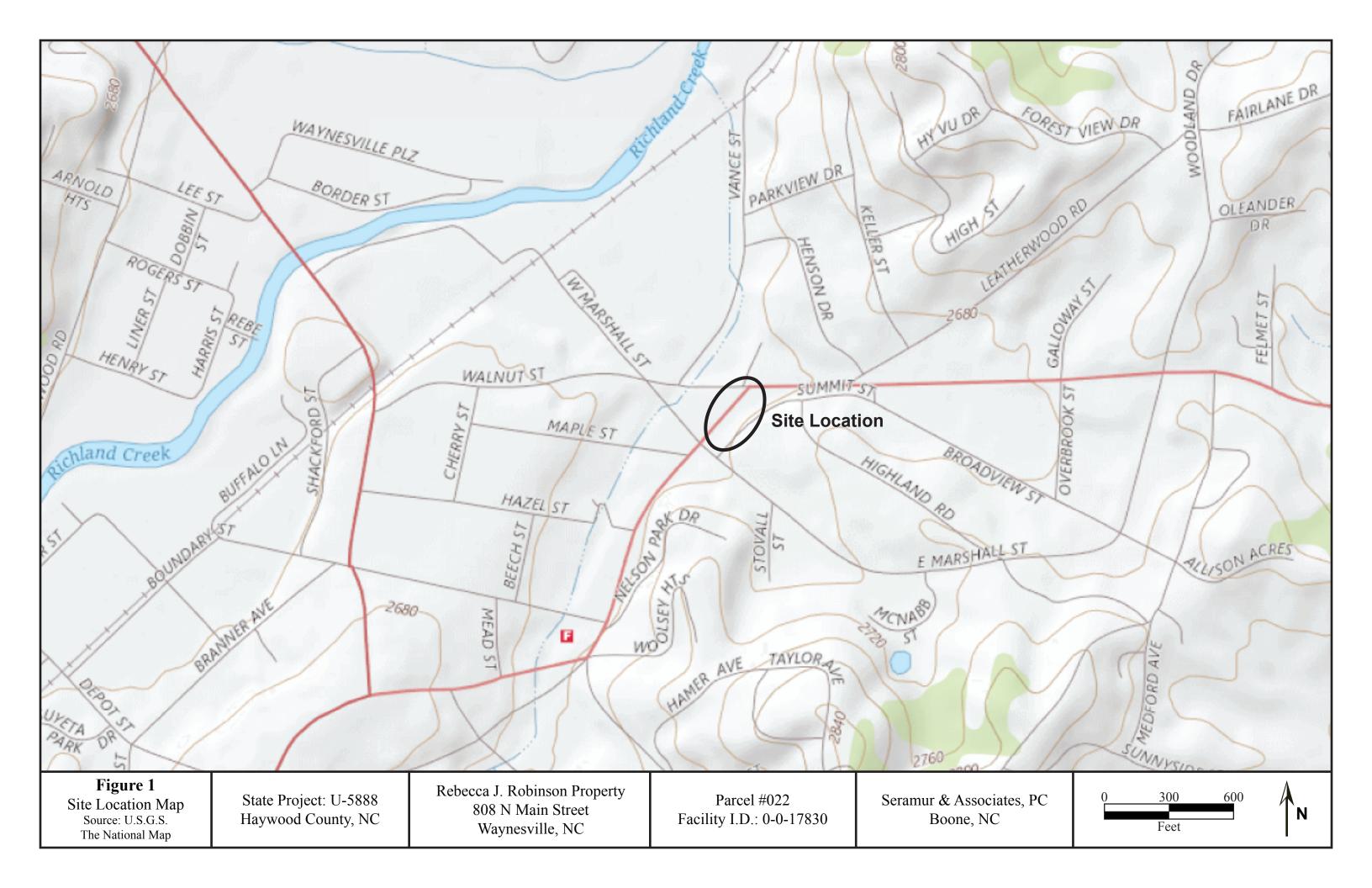
Revision Date: <u>10/25/18</u>

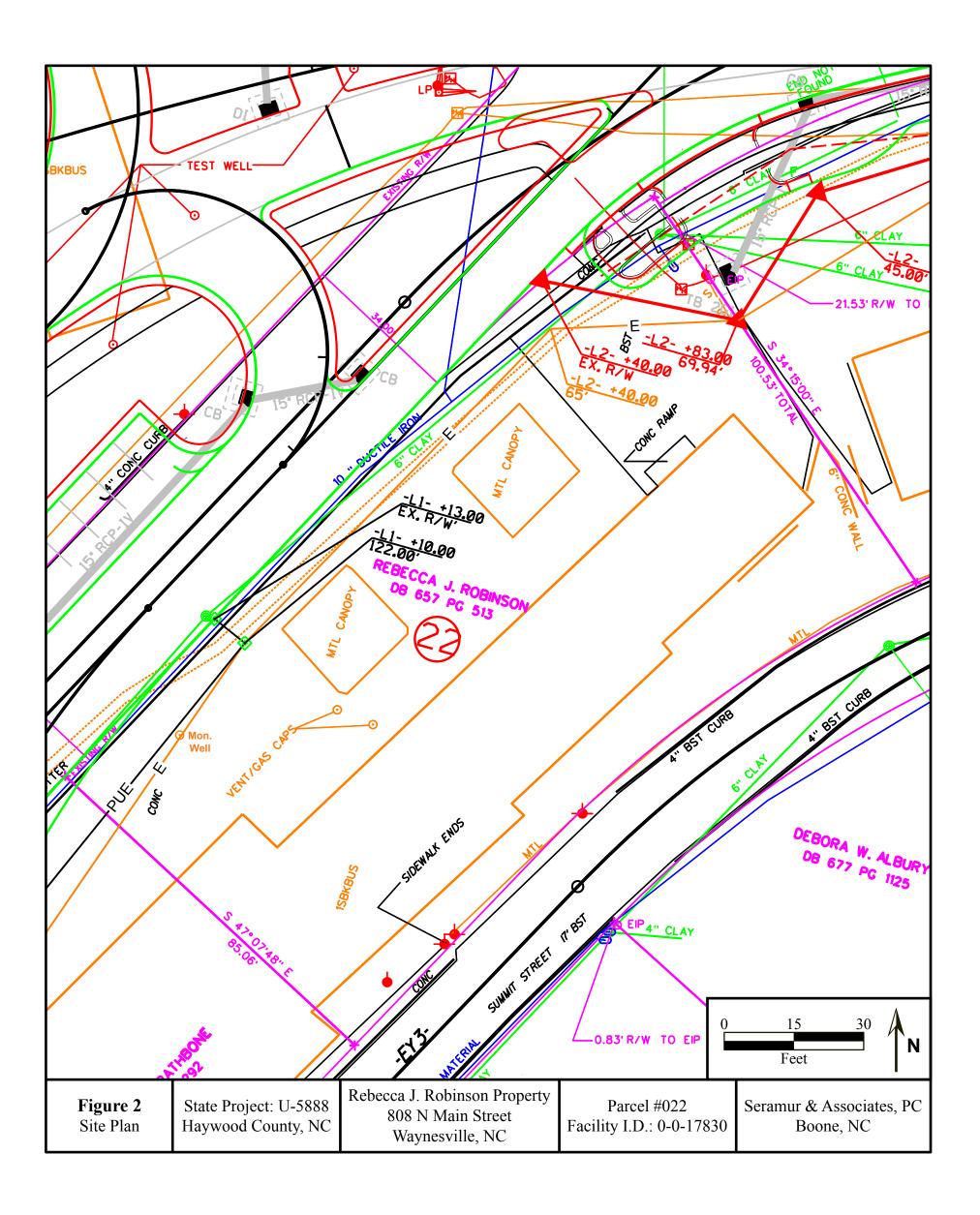
Incident Name: Rebecca J. Robinson Property

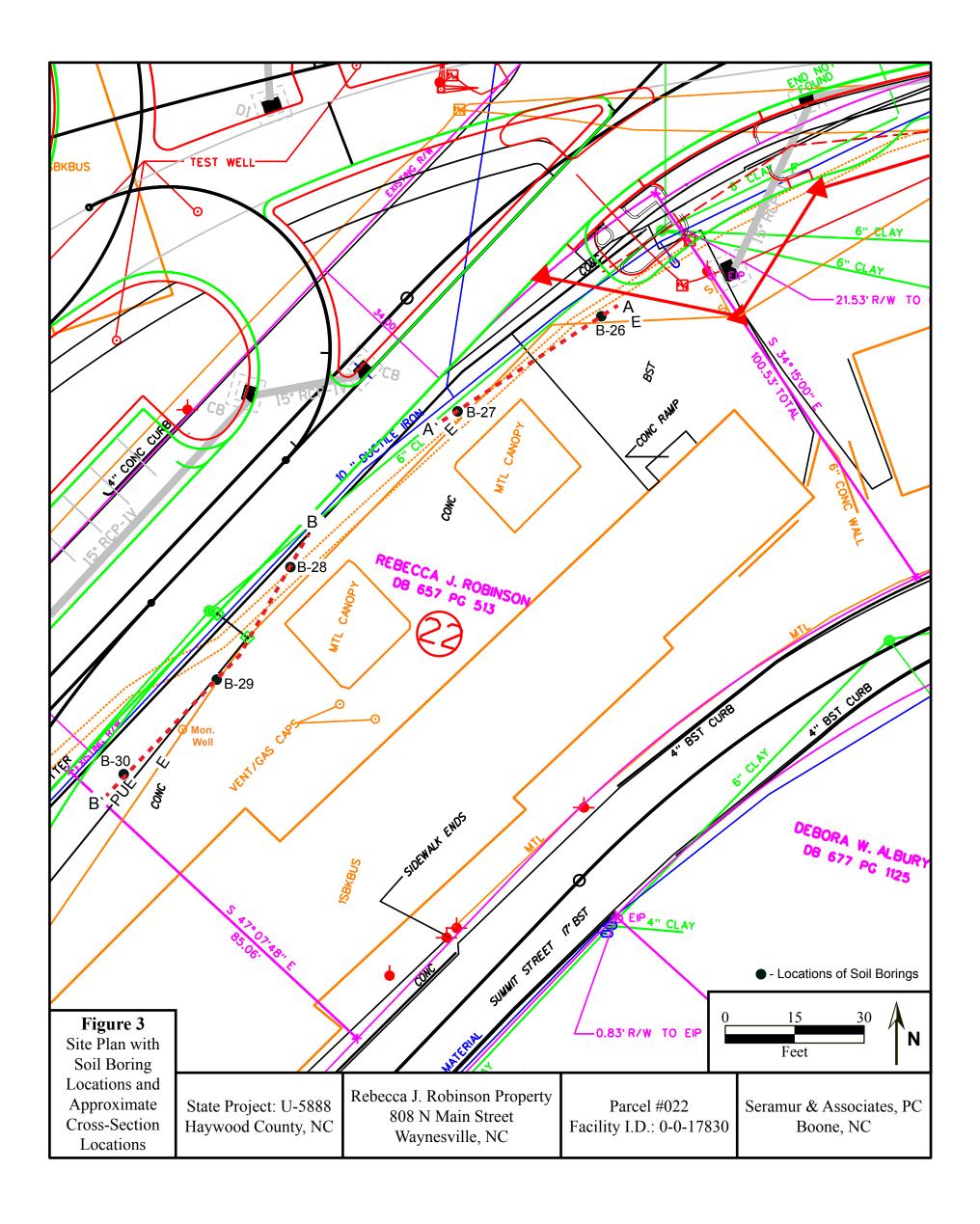
Parcel ID#: 022

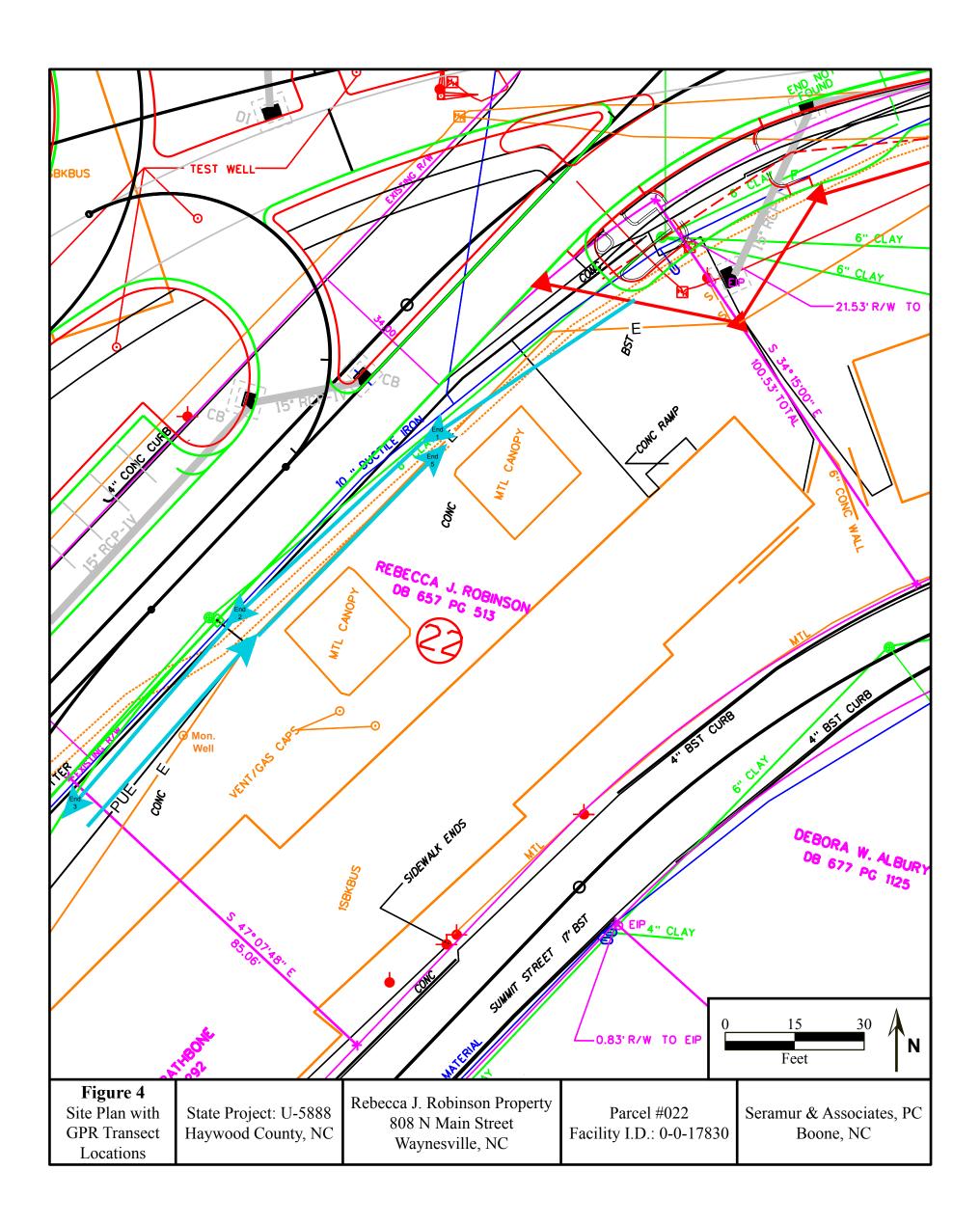
Analytic	Analytical Method (e.g., VOC by EPA 8260) →						
Contami	0	0					
Sample ID	Date Collected (mm/dd/yy)	Source Area	Sample Depth (ft. BGS)	Incident Phase	TPH GRO (mg/kg)	TPH DRO (mg/kg)	
S-50	10/24/18	B-26	3.0	PSA	< 0.59	0.1	
S-51	10/24/18	B-26	9.0	PSA	< 0.59	< 0.24	
S-52	10/24/18	B-27	3.0	PSA	< 0.60	< 0.24	
S-53	10/24/18	B-27	9.0	PSA	< 0.58	< 0.23	
S-54	10/24/18	B-28	3.0	PSA	< 0.55	< 0.22	
S-55	10/24/18	B-28	8.5	PSA	1.3	2.1	
S-56	10/24/18	B-29	3.0	PSA	< 0.56	< 0.22	
S-57	10/24/18	B-29	9.0	PSA	< 0.60	< 0.24	
S-58	10/24/18	B-30	3.0	PSA	< 0.49	< 0.19	
S-59	10/24/18	B-30	8.5	PSA	< 0.53	< 0.21	
NC DEQ	Action Level	(mg/kg)			50	100	

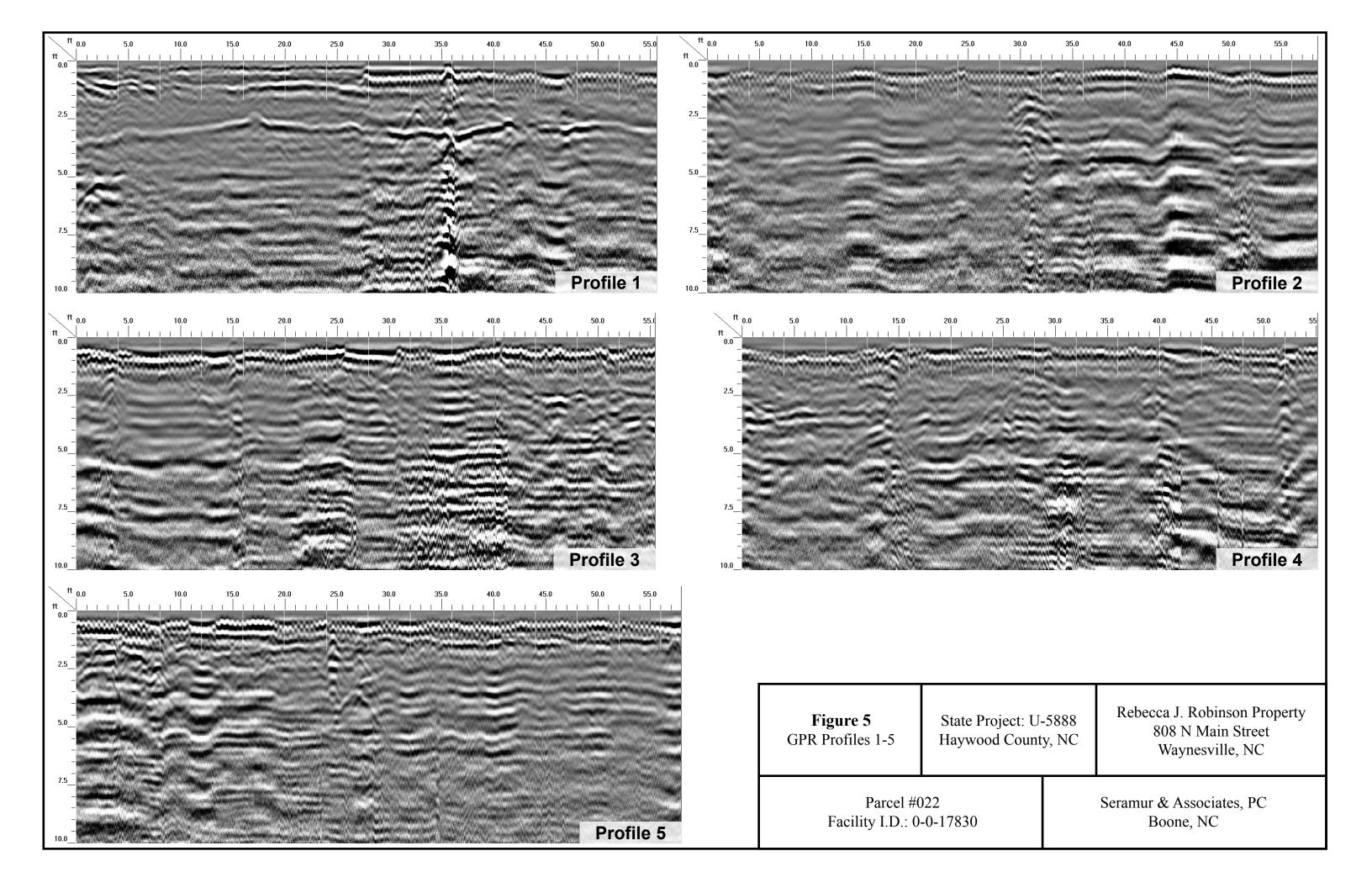
ft. BGS = feet below ground surface mg/kg =milligrams per kilogram

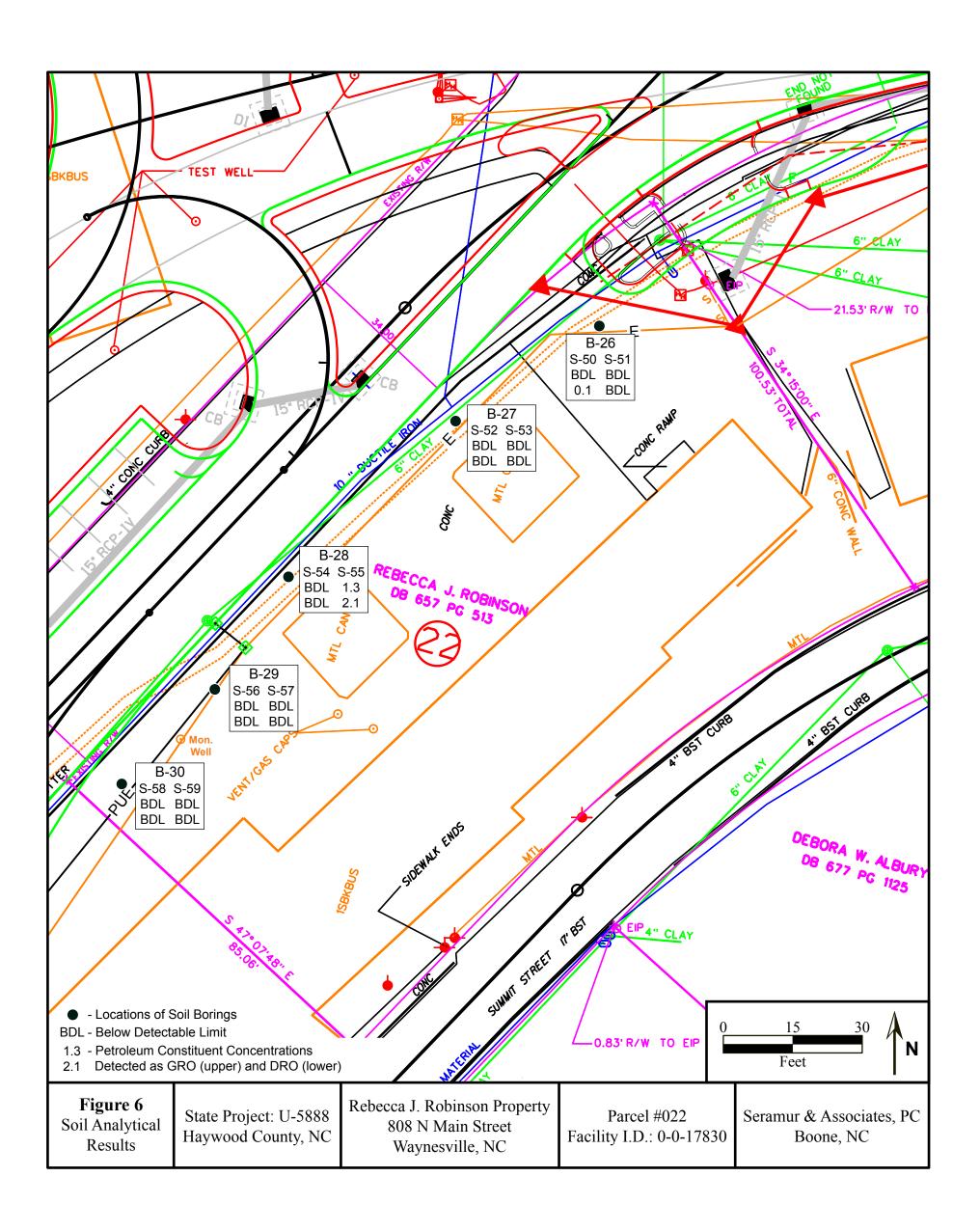


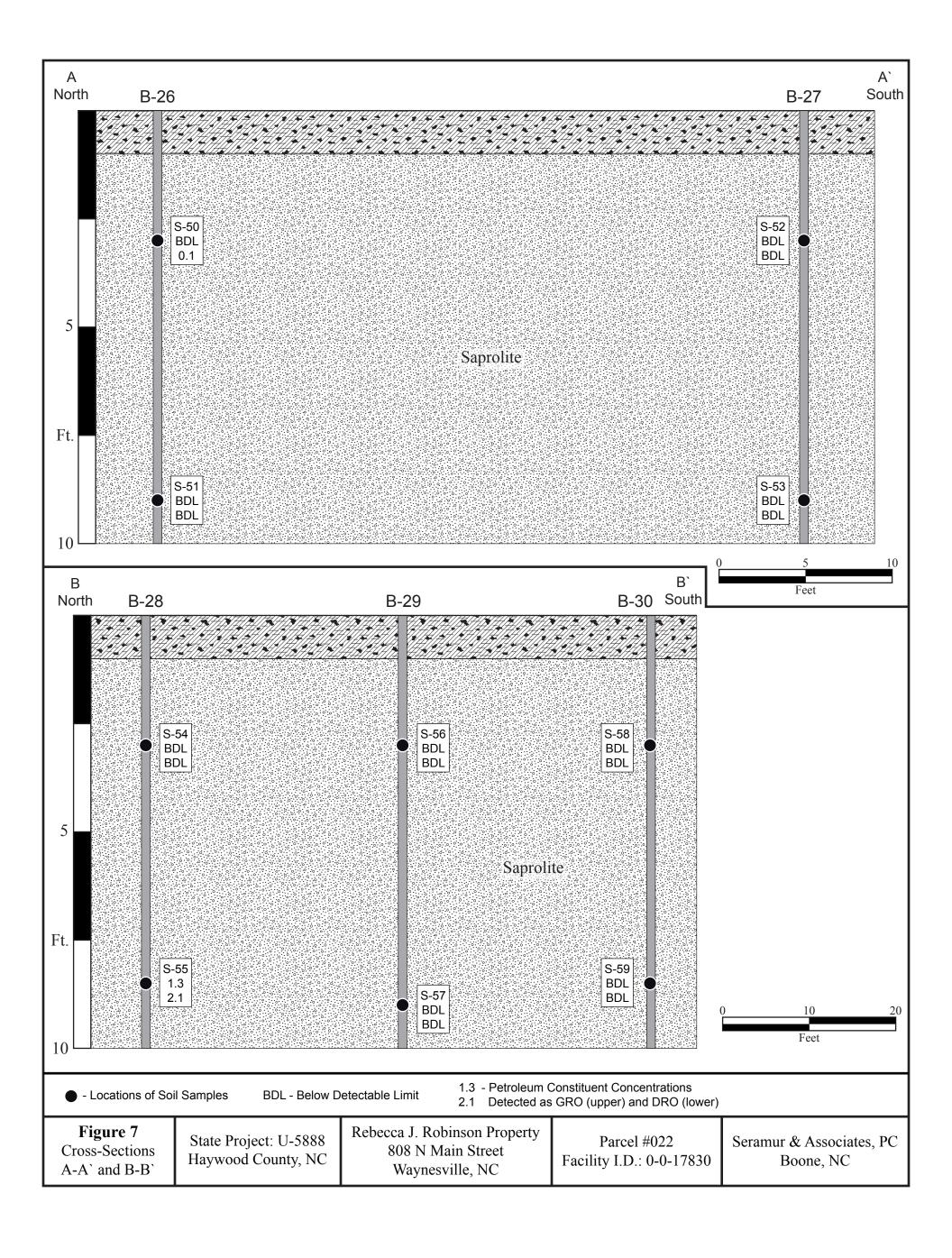












Appendix B

Laboratory Reports and Chain of Custody Records







Hydrocarbon Analysis Results

Client: SERAMUR & ASSOCIATES PC

Address: 165 KNOLL DRIVE

BOONE NC 28607

Samples taken Samples extracted Samples analysed Wednesday, October 24, 2018 Wednesday, October 24, 2018 Thursday, October 25, 2018

Contact: KEITH SERAMUR Operator NICK HENDRIX

COLLECTED BY JA **Project:** NCDOT U-5888 P022

													U04049
Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	ВаР	,	% Ratios	3	HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
Soil	S-50	23.6	<0.59	<0.59	0.1	0.1	0.09	0.01	< 0.007	0	81.6	18.4	Residual HC
Soil	S-51	23.6	<0.59	<0.59	<0.24	0.02	0.02	0.003	< 0.007	0	100	0	Residual HC
Soil	S-52	23.9	<0.6	<0.6	<0.24	<0.6	<0.01	<0.01	<0.007	0	0	0	PHC ND,(FCM)
Soil	S-53	23.2	<0.58	<0.58	<0.23	<0.58	<0.01	<0.01	<0.007	0	0	0	PHC ND,(FCM)
Soil	S-54	21.8	<0.55	<0.55	<0.22	<0.55	<0.01	<0.01	< 0.007	0	0	0	PHC ND,(FCM)
Soil	S-55	7.0	<0.18	1.3	2.1	3.4	0.62	0.02	<0.002	72.1	26.9	0.9	Deg.Diesel 85.3%,(FCM)
Soil	S-56	22.2	<0.56	<0.56	<0.22	<0.56	<0.01	<0.01	<0.007	0	0	0	PHC ND,(FCM)
Soil	S-57	24.1	<0.6	<0.6	<0.24	<0.6	<0.01	<0.01	<0.007	0	0	0	PHC ND,(FCM)
Soil	S-58	19.4	<0.49	<0.49	<0.19	<0.49	<0.01	<0.01	<0.006	0	0	0	PHC ND,(FCM)
Soil	S-59	21.3	<0.53	<0.53	<0.21	<0.53	<0.01	<0.01	<0.006	0	0	0	PHC ND,(FCM)
	Initial Co	alibrator (OC chack	OK					Final FO	M OC	Chack	OK	93.3%

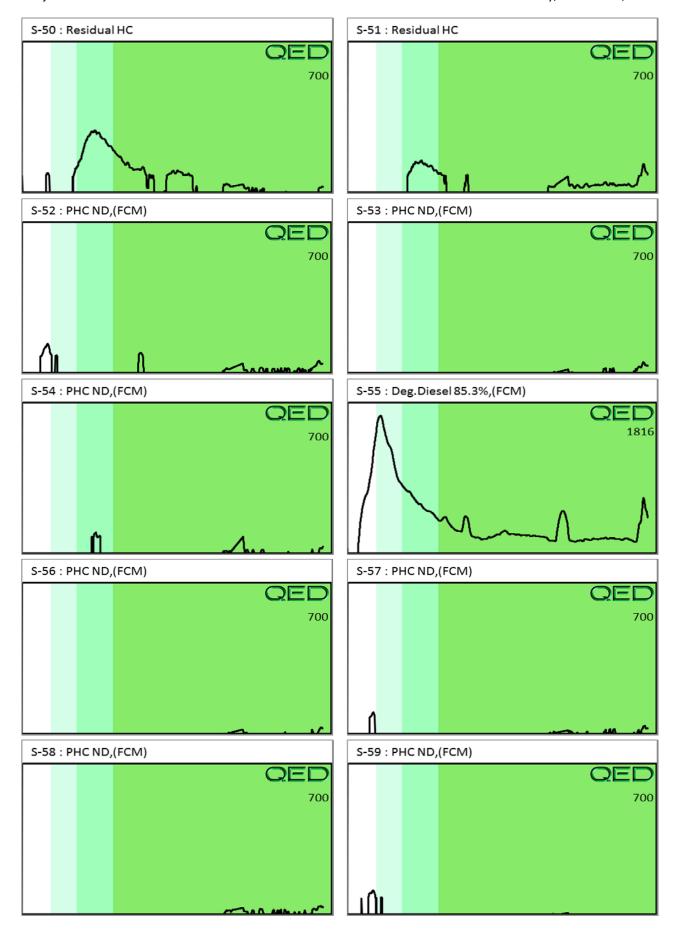
Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations: FCM = Results calculated using Fundamental Calibration Mode: % = confidence of hydrocarbon identification: (PFM) = Poor Fingerprint Match: (T) = Turbid: (P) = Particulate detected

B = Blank Drift: (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result: (BO) = Background Organics detected: (OCR) = Outside cal range: (M) = Modifed Result.

% Ratios estimated aromatic carbon number proportions: HC = Hydrocarbon: PHC = Petroleum HC: FP = Fingerprint only. Data generated by HC-1 Analyser

Project: NCDOT U-5888 P022



Client Name:	Seramor & Associates PC
Address:	165 Knoll Drive
radress.	Boone, NC 28607
Contact:	Keith Seramur
Project Ref.:	NCDOT 4-5888 PO22
Email:	Seramura icloud.com
Phone #:	(828) 264-0289
Collected by:	Joey Anderson



RED Lab, LLC 5598 Marvin K Moss Lane MARBIONC Bldg, Suite 2003 Wilmington, NC 28409

Each sample will be analyzed for BTEX, GRO, DRO, TPH, PAH total aromatics and BaP

CHAIN	OF	CUSTODY	AND	ANALYTICAL
		REQUEST	FOR	M

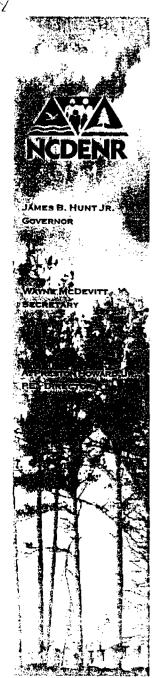
Sample Collection	TAT Requested		1				
		48 Hour	Initials	Sample ID	Total Wt.	Tare Wt.	Sample Wt.
10/24/18 10:06		X	784	5-50	54.3	43.8	11.0
10/24/18 10:08		X	JBA	5-51	54.6	43.6	11.0
10/24/18 10:16		X	JRA	2-57	54.7	43,9	10.9
10/24/18 10:17		X	JBA	5-53	54.7	43.5	11.2
10/24/18 10:24		X	TRA	5-54	55.7	43.8	119
10/24/18 10:26		X	JBA	5-57	54.3	43.4	114
10/24/18 10:31		X	JBA	5-56	55.3	43.6	11.7
10124/18 10:32		X	ABC	5-57	54.2	43.4	8.01
10/24/18 10:36		Y	JBA	2-28	57.3	43.9	13.4
(0124/18 10:38		X	DBA	5.59	55.7	43.5	12.2
						-	
Comments:						D Lab USE	

Relinquished by	Date/Time	Accepted by	Date/Time	
//m /2	10124/18 12:30	FedEx	10/24/18 12:30	
Relinquished by	Date/Time	Accepted by	Date/Time	
		1117	0/25 1200	



Appendix C

Documents From NCDEQ Incident Files





NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WATER QUALITY ASHEVILLE REGIONAL OFFICE

DIVISION OF WASTE MANAGEMENT

September 3, 1998

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Low Risk Classification

Z 372 625 997

John M. Queen III 808 N. Main Street Waynesville, NC 28786

RE: Notice of No Further Action
15A NCAC 2L .0115(h)
RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR
PETROLEUM UNDERGROUND STORAGE TANKS
Short Stop
808 N. Main Street, Waynesville
Haywood, North Carolina
Incident No. (pending)

Dear Mr. Queen:

On September 3, 1998, the Division of Waste Management (DWM), Asheville Regional Office received a Limited Site Assessment Report-Phase II with Soil Assessment and G-3 Groundwater Contaminant Transport Model for the above-referenced site. A review of the reports shows that contaminated groundwater does not exceed gross contamination levels that were established in 15A NCAC 2L .0115(g).

Based on information provided to date, the DWM determines that no further action is required for this incident. This determination is conditional pending completion of the public notice specified below. Once proper public notice has been given, this determination will apply unless the DWM later determines that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment.

John M. Queen III September 3, 1998 Page 2

Please be advised that because contaminated groundwater has not been restored to the level of the standard or interim standard established in 15A NCAC 2L .0202, groundwater within the area of contamination or within the area where contamination is expected to migrate, is not suitable for use as a water supply.

Pursuant to 15A NCAC 2L .0115(e), you have a continuing obligation to notify the DWM of any changes that you know of or should know of, that might affect the level of risk assigned to the discharge or release. Such changes include, but are not limited to, changes in zoning of real property, use of real property or the use of groundwater that has been contaminated or is expected to be contaminated by the discharge or release, if such change could cause the DWM to reclassify the risk. Please note that this responsibility not only pertains to changes involving the property on which the release occurred, but to changes involving the surrounding properties as well.

Please be advised that you must comply with the public notice requirements of 15A NCAC 2L .0115(k) as specified below. If public notice is not provided as required, this no further action determination will be deemed invalid. Within 30 days of receipt of this no further action notice, you must provide a copy of this notice to the following persons:

- local health director:
- chief administrative officer (i.e., Mayor, Chairman of the County Commissioners, County Manager, City Manager or other official of equal or similar position) of each political jurisdiction in which the contamination occurs;
- all property owners and occupants within or contiguous to the area containing contamination; and
- all property owners and occupants within or contiguous to the area where the contamination is expected to migrate.

Copies of this no further action notice must be sent to the persons listed above by certified mail. If it is impractical to provide notice by certified mail to the occupants of apartment buildings, condominiums, office buildings, etc., you may post a copy of this notice in a prominent place where the occupants are most likely to see it.

Within 60 days of receiving this no further action notice, you must provide the DWM, Asheville Regional Office with proof of receipt of the copy of the notice or of refusal by the addressee to accept delivery of the copy of the notice. If a copy of the notice is posted, you must provide the DWM with a description of the manner in which the notice was posted.

John M. Queen III September 3, 1998 Page 3

Interested parties may examine the Limited Site Assessment Report-Phase II with Soil Assessment and G-3 Groundwater Contaminant Transport Model by contacting Joseph McMurray with Blue Ridge Environmental Services Inc. at (704) 482-2111. In addition, the DWM, Asheville Regional Office has the Limited Site Assessment Report-Phase II with Soil Assessment and G-3 Groundwater Contaminant Transport Model along with other site information on file and available for public review. Interested parties may arrange to review this information by contacting the regional office as listed below. In addition, comments on the Soil Cleanup Report with Site Closure Request may be submitted to the regional office.

Asheville Regional Office 59 Woodfin Place, Asheville NC 28801 (704) 251-6208

Please be advised that you must close any monitoring wells used to investigate or remediate this incident in accordance with 15A NCAC 2C .0113.

Should you have any questions concerning this notice, please contact Mike Streeter at (704) 251-6208.

Sincerely,

Janice C. Andersen

Regional UST Supervisor

Attachments: 15A NCAC 2C .0113

Well Abandonment Form

cc: Fay Sweat/Groundwater Section Freddie Harrill/Blue Ridge Env.

REPORT OF AN UNDERGROUND STORAGE TANK CLOSURE

The Short Stop 808 North Main Street Haywood County Waynesville, North Carolina

Facility ID# 0-017830

Prepared for: John M. Queen III 808 North Main Street Waynesville, NC

BLUE RIDGE ENVIRONMENTAL SERVICES, INC.



406 Beaumonde Avenue Shelby, North Carolina 28150 (704) 482-2111 Fax (704) 482-4335 E-mail; BlueridgeB@aol.com

AUR - 6 1997

UNDERGROUND STORAGE TANK CLOSURE REPORT

Date: 3/20/98

The closure report should contain, at a minimum, the following information. Any other information that is pertinent to the site should be included.

- General Information
 - A. Ownership of UST (s)
 - Name of UST Owner: John M. Queen III.
 - 2. Owner address and telephone number: 808 N. Main Street, Waynesville, NC 704-456-8981
 - B. Facility Information
 - 1. Facility name: The Short Stop
 - 2. Facility ID #: 0-017830
 - 3. Facility address, telephone number and county: Same as A.2. above, Haywood County
 - C. 1. Name, address, telephone number and job title of primary contact person: Pat Henry, Manager, same address, same phone
 - 2. Name, address and telephone number of closure contractor: SPATCO, Candler, NC 800-288-4536
 - Name, address and telephone number of primary consultant: Blue Ridge Environmental Services, Inc., 406 Beaumonde Ave, Shelby, NC 704-482-2111
 - 4. Name, address, telephone number and State certification number of laboratory: Prism, P. O. Box 240543, Charlotte, NC 28224, 704-529-6364; Cert. # 402

D. UST Information:

Tank No.	Installation Dates	Size in Gallons	Tank Dimensions	Last Contents	Previous Contents (If any)
1	unknown	4000	64" x 24'	gasoline	
					.
		_			
				1	

- E. Site Characteristics
 - 1. Describe any past releases at this site: None known
 - 2. Is the facility active or inactive at this time? If the facility is inactive, note the last time the USTs were in operation:Facility active, new tanks installed.

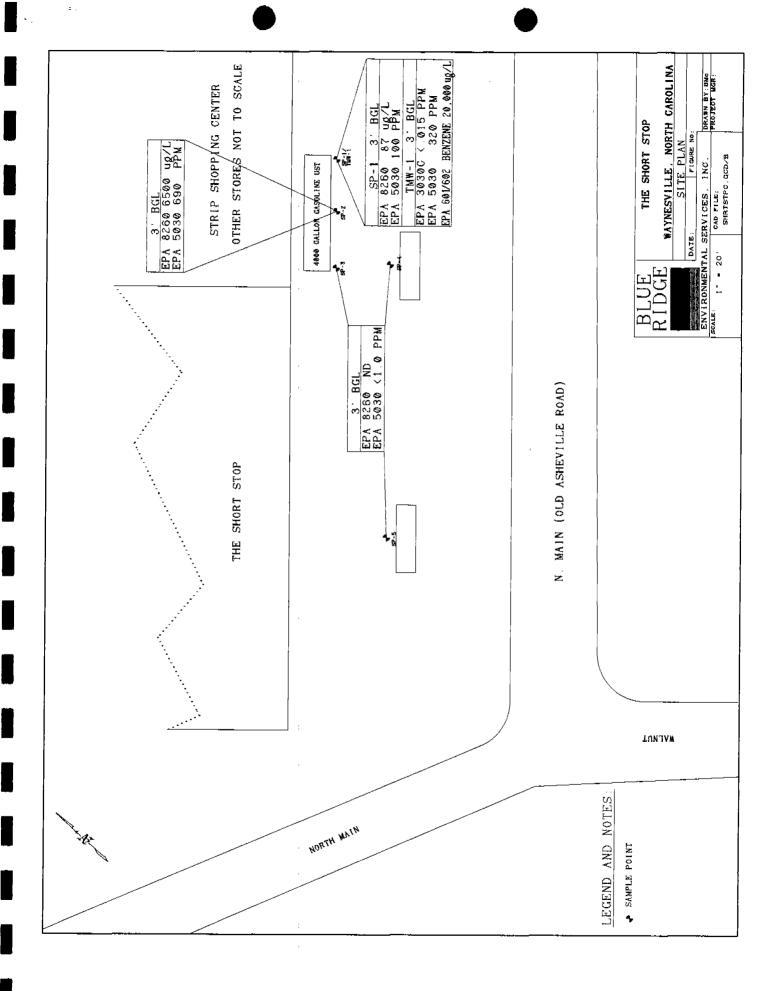


TABLE 1							
	Field Screening Results						
	The Short Stop						
Sample ID Depth PID Reading (parts per million)							
SP 1	3'	2636					
SP 2	3'	2309					
SP 3	3'	21					
SP 4	3'	0					
SP 5	3'	0					

TABLE 2									
	Laboratory Analyses Results								
		The Sho	rt Stop						
Sample ID Depth Method Method Method Method 5030 *601/602 Benzene									
SP 1	3'	87	N/S	100	N/S				
SP 2	3'	6,500	N/S	690	N/S				
SP 3	3'	N/D	N/S	< 1.00	N/S				
SP 4	3'	N/D	N/S	< 1.00	N/S				
SP 5	3'	N/D	N/S	< 1.00	N/S				
TMW 1		N/S	< 0.015	320	20,000				

Notes:

Methods 3030c and 5030 results expressed in parts per million (PPM)
* See lab results for other 8260 and 601/602 results, expressed in ug/L (parts per billion)
N/D denotes not detected at laboratory method detection limits.
N/S denotes not sampled.