Prepared for

North Carolina Department of Transportation
Century Center Complex, Building B
1020 Birch Ridge Drive
Raleigh, North Carolina 27610

PRELIMINARY SITE ASSESSMENT

PARCEL 89

NC 211 IN WEST END

4039 NC HIGHWAY 211, MOORE COUNTY WEST END, NORTH CAROLINA

WBS #: 50218.1.1

TIP#: R-5726

Prepared by

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Project Number GN7039

October 2019

Geosyntec consultants

Date:	October 21, 2019
WBS Number:	50218.1.1
TIP Number:	R-5726
County:	Moore County
Description:	Preliminary Site Assessment
Address:	4039 NC 211, West End, North Carolina 27376
Parcel ID:	Parcel 89; Norris Randall Jessup and Kathy T. Jessup
Author:	R. Matthew Jenny, P.E.

I, R. Matthew Jenny, a Professional Engineer for Geosyntec Consultants of NC, PC do certify that the information in this report is correct and accurate to the best of my knowledge.

Not considered final until all signatures are completed

Geosyntec Consultants of NC, PC is licensed to practice engineering in North Carolina. The certification number (Firm's License Number) is C-3500.

Geosyntec Consultants of NC, PC is licensed to practice geology in North Carolina. The certification number (Firm's License Number) is C-295.

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1. INTRODUCTION

1.1 Description

Geosyntec Consultants of NC, PC (Geosyntec) presents this technical report (Report) to the North Carolina Department of Transportation (NCDOT) for the Preliminary Site Assessment (PSA) of 4039 NC 211 in West End, North Carolina (the Site). The Site is associated with NCDOT TIP number R-5726, Parcel 89, and owned by Norris Randall Jessup and Kathy T. Jessup. A Site location map is presented in **Figure 1**.

Geosyntec understands NCDOT would like to acquire right-of-way (ROW) and Public Utility Easements (PUEs) for road improvements along NC 211 in West End, North Carolina. The principal purpose of this PSA is to assess the possible presence of underground storage tanks (USTs) and/or above-ground storage tanks (ASTs), determine the likelihood of environmental impacts (i.e., soil and/or groundwater contamination), and make recommendations for regulatory compliance within the project study area.

This report discusses the Site history, investigative methodology, observations, sampling results, conclusions, and recommendations.

1.2 Site Background

NCDOT Parcel 89 (Moore County Parcel 00016100 [Norris Randall Jessup and Kathy T. Jessup]) is located on 4039 NC HWY 211 in West End. **Figure 2** shows the general Site layout, including the locations of the soil borings advanced to investigate the subsurface of the Site. The property is approximately 1 acre and surrounded by a wire mesh security fence. It is bounded to the immediate south by NC 211 and to the north, west and east by residential land and forest. The Site is currently an abandoned restaurant. There are no known UST incidents associated with the Site.

1.3 Scope of Work

The scope of work consisted of a historical Site desktop review, geophysical survey, and sub-surface soil investigation. The geophysical survey was performed to locate potential metallic USTs, UST-associated product lines, non-UST metallic anomalies, and private underground utility lines within the immediate vicinity of the proposed soil boring locations. Following the geophysical survey, soil borings were advanced and soil samples

were collected from each location to determine if, and to what extent, contaminated soils are present within the study area.

2. HISTORY

Geosyntec reviewed publicly accessible online environmental databases (i.e., the North Carolina Department of Environmental Quality [NCDEQ] Laserfiche database, the NCDEQ Division of Waste Management Site Locator Tool, and the NCDEQ UST Section database) to research the Site history.

2.1 Historical Aerial Photographs

The following reviews the findings from the historical aerial photographs, as provided by Google Earth® imagery:

- The earliest aerial photographs date back to 1993. The existing above-grade structure can be identified in the historical photos, which is presumably the abandoned restaurant building. No significant deviations at the Site were identified between 1993 and 2018.

- The Site surroundings (residential and forest land) appear generally consistent from 1993 to 2018. Some minor land development can be identified to the east of the property in 2018.

2.2 Subject Site Findings

There are no known UST incidents associated with the property identified in the initial Site historical review. Further, other (i.e., non-UST) environmental incidents were not identified as part of a cursory desktop review.

Based upon the limited environmental history information, Geosyntec conducted a Site investigation inclusive of a geophysical survey and intrusive activities to screen soil and evaluate if there is contamination within the Site study area.

3. METHODS

3.1 Geophysical Investigation

The geophysical investigation was performed at the Site by Pyramid Environmental and Engineering P.C. (Pyramid) from July 29 to July 31, 2019 to locate and mark buried USTs, buried metallic drums, and/or buried utility lines within the accessible portions of the ROW/PUE extent. Generally, the tasks consisted of an electromagnetic induction-metal (EM) detection followed by ground penetrating radar (GPR) surveys.

The EM data was digitally collected at approximately 1-foot intervals along survey lines spaced approximately five feet apart. The EM unit can detect a metal drum down to a depth of approximately eight (8) to ten (10) feet. GPR scanning was conducted across selected EM metal detection anomalies, around the proposed boring locations, and across the entire ROW/PUE area along with a DitchWitch utility locator for buried utility line clearance. Additional details of the geophysical investigation methodology are provided in **Appendix A** of the report.

3.2 Sub-Surface Soil Investigation

The sub-surface investigation was conducted on August 12-15, 2019 using hand augers. The Site owner granted access inside the property fence to complete the geophysical survey; however, the owner was unable to unlock the gate to facilitate the drilling effort. Thus, SAEDACCO used hand augers to collect soil borings down to 10 feet below ground surface (ft bgs) to investigate the subsurface. North Carolina 811 was notified to mark utility lines within the existing ROW prior to completing the soil borings.

Soil sampling locations were selected in areas likely to be encountered during roadway construction. Specific priority was placed at locations proximal to the two probable metallic USTs identified as part of Pyramid's geophysical survey (explained in more detail in the Results section). The soil lithology was recorded, and the soil was screened using a photo-ionization detector (PID) with a 10.6 electron-Volt lamp at approximately 6-inch intervals. Soil samples were collected from each boring at an elevation corresponding to the highest PID reading. In instances where PID readings were null, field personnel used professional judgement (e.g., odors, staining, historical Site-use information) to determine the appropriate sampling depth.

Upon hand auguring completion, the soil cuttings were dispersed over the Site's natural areas and/or backfilled within the boring. Boring surface completions matched pre-existing conditions to the extent practical. Boring locations were surveyed with a global position system (GPS) unit. The hand auger was decontaminated with Liquinox® cleaning solution and deionized water between borings. Free product was not encountered during soil sampling, nor was other investigative derived waste (IDW) accumulated. As such, IDW drums were unnecessary.

Samples were sent off-site to Red Lab, LLC (Red Lab) and Prism Laboratories, Inc. (Prism). The samples sent to Red Lab were analyzed for Total Petroleum Hydrocarbon (TPH), gasoline-range organics (GRO), and diesel-range organics (DRO) by Ultra-Violet Fluorescence (UVF). Soil samples submitted to Prism were analyzed for volatile organic compounds (VOCs) by USEPA Method 8260B, reporting only benzene, toluene, ethylbenzene, and xylenes (BTEX). The analytical approaches are consistent with the UST Section Guidance. Samples were sent on ice under chain of custody procedures to the applicable laboratory.

4. RESULTS

4.1 Site Observations

On July 29, 2019 Geosyntec performed an initial Site walk with Pyramid prior to conducting work. The Site is an abandoned restaurant with a surrounding wire mesh security gate. Most part of the Site is covered with vegetation, except for the area south of the building, which is paved with gravel. **Appendix B** provides a photographic log of the field observations.

4.2 Geophysical Investigation Results

The geophysical survey was performed to locate and mark buried USTs, buried metallic drums, and/or buried utility lines within the ROW/PUE extent using both EM and GPR approaches.

Pyramid identified four metallic anomalies throughout the Site, most of which are probably attributed to buried utility lines, conduits, metal sign poles, and other miscellaneous metal objects/debris. One high-amplitude EM anomaly was suggestive of possible tank(s) and was investigated by GPR. According to Pyramid, the GPR results indicate the anomalies are two discreet, high-amplitude hyperbolic reflectors and two isolated lateral reflectors that are characteristic of USTs (the UST numbers are arbitrarily labeled**)**:

- UST #1 is approximately 15.5 feet long and 8.5 feet wide
- UST #2 is approximately 14 feet long and 8 feet wide

Collectively, the geophysical data recorded two probable metallic USTs at the Site. Pyramid's geophysical report is provided in **Appendix A**.

4.3 Sub-Surface Investigation Results

4.3.1 Field Sampling Observations and PID Results

Following the geophysical survey, the sub-surface investigation was performed to determine if, and to what extent, contaminated soils are present within the study area. Four (4) soil borings were completed during the investigation, each extending 10 ft bgs. PID soil screening values were null throughout the entirety of each soil boring. The soil

lithology generally consisted of top soil in the first three (3) ft bgs followed by sandy clay with some gravel. Groundwater was not encountered. Soil sampling locations are shown on **Figure 2** and GPS coordinates are recorded on **Table 1**. The boring logs are provided in **Appendix C**.

4.3.2 Soil Sampling Analytical Results

Four (4) soil samples were collected as part of the intrusive investigation and analyzed for TPH by UVF and VOCs by EPA Method 8260B. The TPH analytical data was screened against the TPH DRO and TPH GRO values established in the UST Section Guidance. The benzo(a)pyrene and BTEX analytical data were compared to the NCDEQ UST Section Maximum Soil Contaminant Concentrations (MSCCs).

The UVF fingerprinting data do not indicate soil screening level exceedances for the constituents analyzed. DRO was detected in the SB89-03 soil sample. No results exceeded the screening values. **Table 2** shows the TPH analytical results.

VOC analytical data was screened against the NCDEQ UST Section MSCCs. No detections were reported. The VOC analytical results are shown in **Table 3.**

The UVF analytical report, including the fingerprint matching data, is provided in **Appendix D**; the Prism analytical report is provided in **Appendix E**[1]. **Figure 3** displays the soil boring locations using a preliminary roadway design drawing base map.

[1]The Prism Laboratory report includes analytical results for samples collected from other parcels associated with NCDOT project R-5726.

5. SUMMARY

From August 12-15, 2019 Geosyntec completed an environmental PSA to determine the likelihood of contamination within the proposed acquisition area on the property located at 4039 NC 211 (Parcel 89), West End, North Carolina. The property is owned by Norris Randall Jessup and Kathy T. Jessup. The following summarizes the findings of this PSA.

Following a cursory desktop Site review, no environmental incidents associated with the Site were identified. A geophysical survey and intrusive soil investigation were performed as part of this scope of work. Pyramid identified two probable metallic USTs to the immediate southwest of the building. The USTs are approximately 14-15.5 feet long and 8-8.5 feet wide. The findings are located within the proposed PUE and are buried approximately 1.5 ft bgs. Four (4) soil borings were advanced within the PUE boundary to investigate the environmental impacts on the property, including two soil borings within the immediate vicinity of the underground anomalies. Petroleum impacts to Site soils were not identified during field screening or as part of analytical testing. Groundwater was not encountered.

The work performed herein did not identify petroleum impacts in shallow soils within the Site study area. It should be noted that the on-Site building restricts access to evaluate the soil conditions immediately north of the USTs. Nonetheless, Geosyntec anticipates a low likelihood of encountering shallow soil impacts within the proposed PUE extent. Geosyntec recommends excavating and properly disposing of the two probable USTs and their contents to facilitate roadway completion.

TABLES

Table 1
Soil Boring Coordinates
4039 NC 211, West End, North Carolina 27376
NCDOT Parcel 89
TIP: R-5726
WBS: 50218.1.1

Soil Boring ID	Longitude	Latitude
SB89-01-5.0-5.5	-79.592645	35.267694
SB89-02-5.5-6.0	-79.592542	35.267676
SB89-03-6.5-7.0	-79.592793	35.267731
SB89-04-7.0-7.5	-79.592380	35.267636

Note:
1) Coordinate datum reference: WGS 1984.

Table 2
Soil Analytical Results - TPH by UVF
4039 NC 211, West End, North Carolina 27376
NCDOT Parcel 89
TIP: R-5726
WBS: 50218.1.1

Analyte			BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	Benzo[a]pyrene
Units			mg/kg						
UST TPH Guidance			---	**50**	**100**	---	---	---	---
Soil-to-Water MSCCs			---	---	---	---	---	---	**0.096**
Residential Soil MSCCs			---	---	---	---	---	---	**0.088**
Commercial / Industrial MSCCs			---	---	---	---	---	---	**0.78**
Sample ID	**Sample Depth (ft bgs)**	**Sample Date**							
SB89-01-5.0-5.5	5.0-5.5	8/15/2019	<0.6	<0.6	<0.6	<0.6	<0.12	<0.19	<0.024
SB89-02-5.5-6.0	5.5-6.0	8/15/2019	<0.34	<0.34	<0.34	<0.34	<0.07	<0.11	<0.014
SB89-03-6.5-7.0	6.5-7.0	8/15/2019	<0.38	<0.38	**0.38**	**0.38**	**0.38**	<0.12	<0.015
SB89-04-7.0-7.5	7.0-7.5	8/15/2019	<0.46	<0.46	<0.46	<0.46	<0.09	<0.15	<0.018

Notes:

(1) mg/kg indicates milligrams per kilogram.

(2) NCDEQ UST Guidance references the 26 July 2016 Guidelines for North Carolina Action Limits for Total Petroleum Hydrocarbons (TPH).

(3) MSCC indicates North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Section Maximum Contaminant Concentration Levels, updated November 2016.

(4) < indicates analyte was not detected above the laboratory method detection limit (MDL).

(5) Detections are identified in bold.

(6) --- indicates screening criteria not established.

(7) UVF indicates ultraviolet fluorescence.

(8) TPH indicates total petroleum hydrocarbons.

(9) GRO indicates gasoline range organics.

(10) DRO indicates diesel range organics.

(11) PAH indicates polycyclic aromatic hydrocarbon.

(12) BTEX indicates benzene, toluene, ethylbenzene, and xylenes.

(13) ft. bgs indicates feet below ground surface.

Table 3
Soil Sampling Analytical Summary - VOCs
4039 NC 211, West End, North Carolina 27376
NCDOT Parcel 89
TIP: R-5726
WBS: 50218.1.1

Analyte	NCDEQ Residential Soil Cleanup Levels MSCC	NCDEQ Industrial/ Commercial Soil Cleanup Levels MSCC	NCDEQ Soil-to-Water Maximum Contaminant MSCC	Sample ID	SB89-1	SB89-2	SB89-3	SB89-4
				Sample Date	8/15/2019	8/15/2019	8/15/2019	8/15/2019
				Sample Depth (ft. bgs)	5.0-5.5	5.5-6.0	6.5-7.0	7.0-7.5
				Sample Type	Grab			
				Units	mg/kg			
Volatile Organic Compounds (VOCs) by EPA Method 8260B								
Benzene	**18**	**164**	**0.0056**	mg/kg	< 0.0056	< 0.0066	< 0.0065	< 0.0062
Ethylbenzene	**1,560**	**40,000**	**4.9**	mg/kg	< 0.0056	< 0.0066	< 0.0065	< 0.0062
m,p-Xylenes	**3,129**	**81,760**	**4.6**	mg/kg	< 0.011	< 0.013	< 0.013	< 0.012
o-Xylene	**3,129**	**81,760**	**4.6**	mg/kg	< 0.0056	< 0.0066	< 0.0065	< 0.0062
Toluene	**1,200**	**32,000**	**4.3**	mg/kg	< 0.0056	< 0.0066	< 0.0065	< 0.0062
Xylene (total)	**3,129**	**81,760**	**4.6**	mg/kg	< 0.017	< 0.020	< 0.019	< 0.019

Notes:

(1) North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Section Maximum Soil Contaminant Concentrations (MSCCs) as indicated in the NCDEQ UST Section *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for UST Releases* , amended April 2012.

(2) VOC indicates volatile organic compound.

(3) mg/kg indicates milligrams per kilogram.

(4) Concentrations exceeding MSCCs are highlighted as shown:

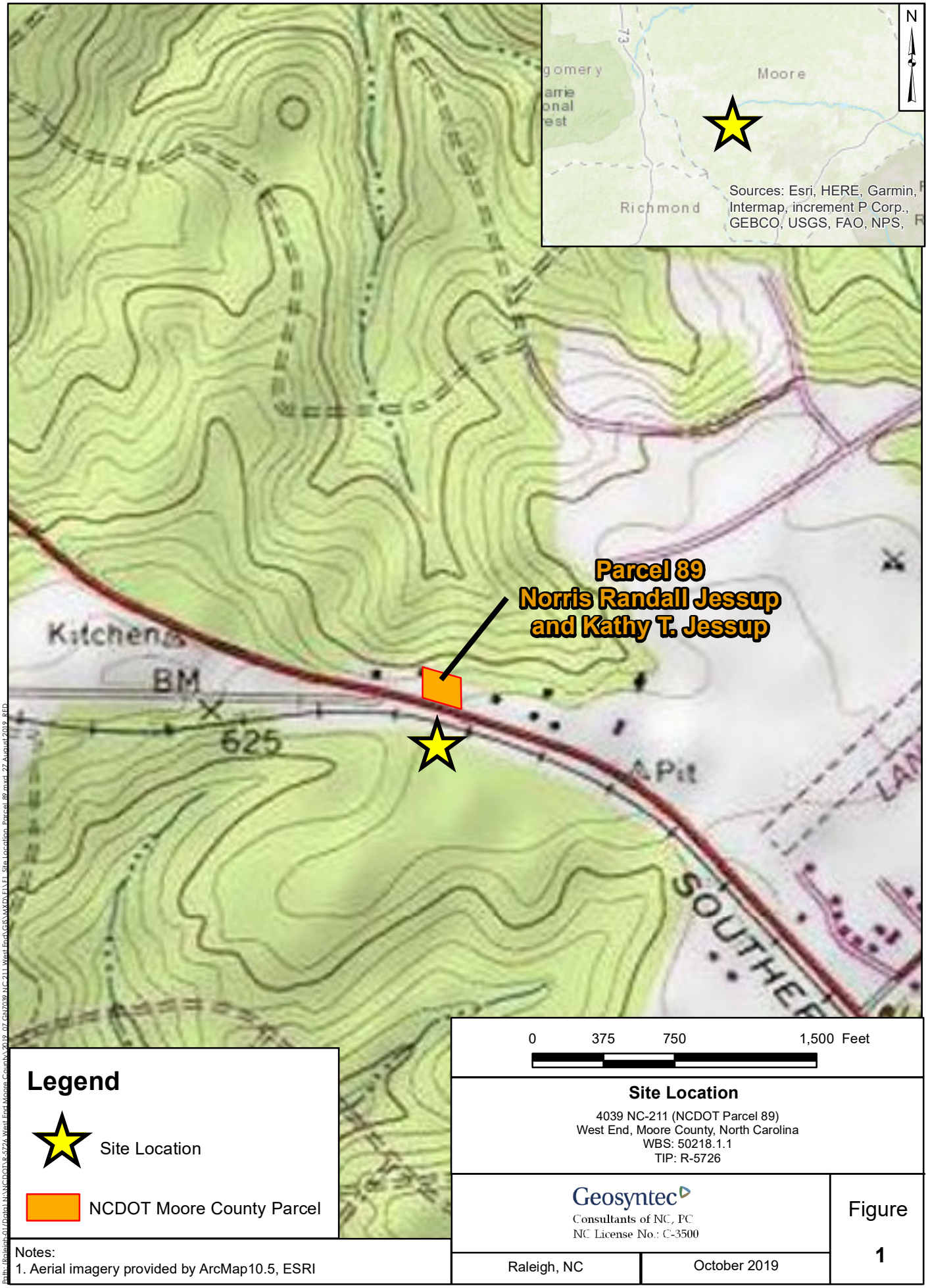
Residential	Industrial	Soil-to-Water

(5) ft bgs indicated feet below ground surface.

(6) < indicates analyte was not detected above the laboratory reporting limit (RL).

(7) Only benzene, toluene, ethylbenzene, and xylenes (BTEX) were reported.

FIGURES



Site Location

4039 NC-211 (NCDOT Parcel 89)
West End, Moore County, North Carolina
WBS: 50218.1.1
TIP: R-5726

Geosyntec
Consultants of NC, PC
NC License No.: C-3500

Raleigh, NC | October 2019

Figure 1

Path: J:\Raleigh-01\Data\N\NCDOT\R-5726 West End Moore County\2019_07 GN\2019 NC 211 West End\GIS\MXD\F1-F1 Site Location_Parcel 89.mxd 27 August 2019 RFD

Legend

- Soil Boring Locations
- Approximate PUE Extent
- Probable USTs
- NCDOT Moore County Parcel

0 25 50 100 Feet

Site Layout (Norris Randall Jessup and Kathy T. Jessup)

4039 NC-211 (NCDOT Parcel 89)
West End, Moore County, North Carolina
TIP: R-5726
WBS: 50218.1.1

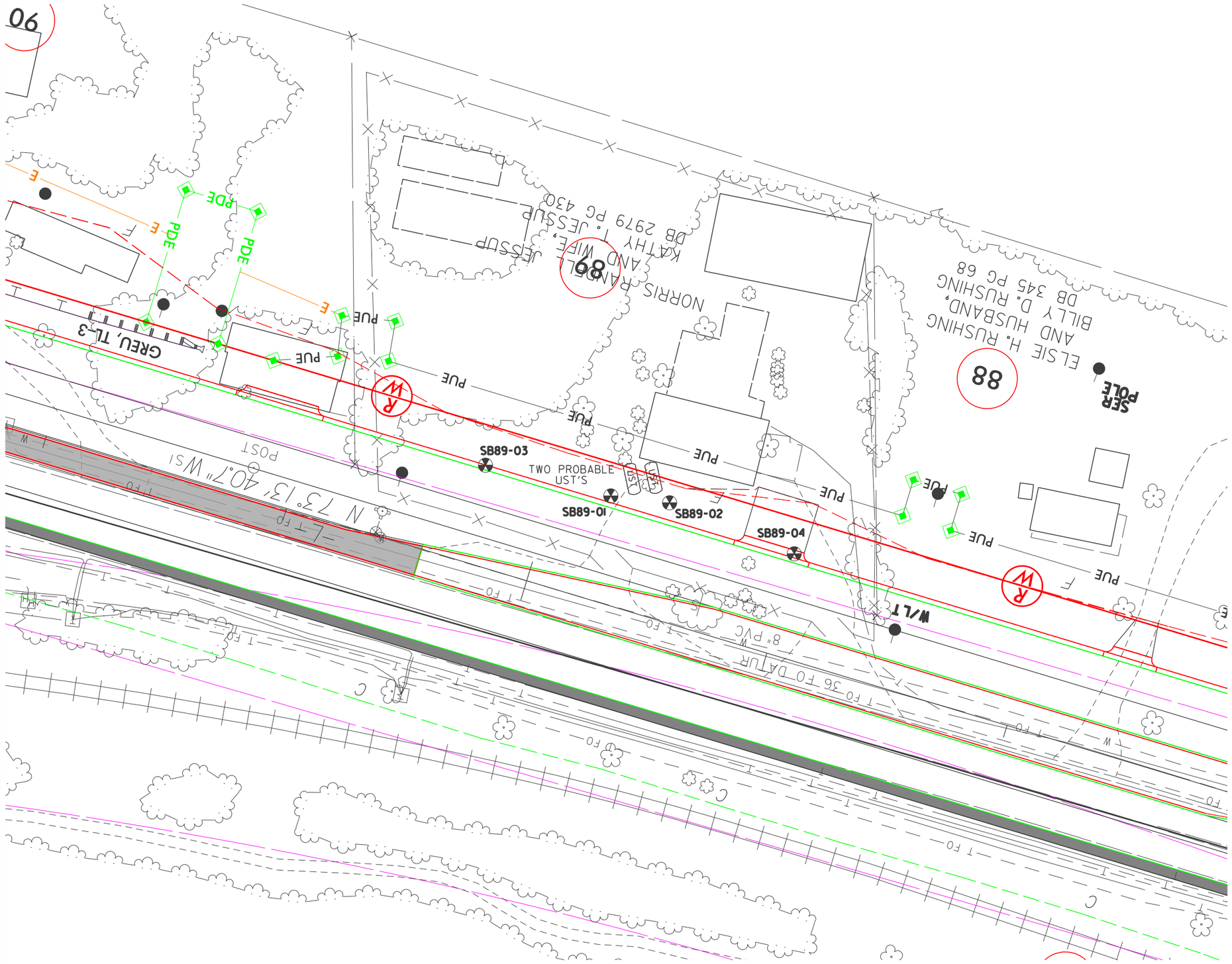
Notes:
1. Property boundary provided by Moore County, North Carolina GIS.
2. Aerial imagery provided by ArcMap10.5, ESRI
3. PUE indicates Public Utility Easement.
4. Soil boring locations are approximated by GPS; locations were not surveyed by a licensed surveyor.

Geosyntec
Consultants of NC, PC
NC License No.: C-3500

Ralegh, NC | October 2019

Figure 2

Path: (Raleigh-01/Data) N:\NCDOT\R-5726 West End Moore County\2019_07 GN7039 NC 211 West End\GIS\MXD\F2E_Parcel 89.mxd 27 August 2019 RED



LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PROPERTY BOUNDARY
- PROPOSED RIGHT-OF-WAY LINE
- PUE — PROPOSED PERMANENT DRAINAGE
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE
- E — TEMPORARY CONSTRUCTION EASEMENT
- SB89-xx — GEOENVIRONMENTAL BORING
- UST — PROBABLE UNDERGROUND STORAGE TANK

NOTES:

1. PSA PERFORMED IN THE PROPOSED ROW/PUE ONLY.
2. CONSTITUENTS ANALYZED WERE NOT DETECTED ABOVE APPLICABLE NCDEQ UST SECTION SCREENING CRITERION.

N

0 40' 80'

NCDOT PARCEL 89 SOIL BORING LOCATIONS
4039 HIGHWAY NC-211
WEST END, MOORE COUNTY,
NORTH CAROLINA
WBS: 50218.1.1 TIP: R-5726

Geosyntec consultants of NC, PC
NC License No: C-3500

FIGURE 3

PROJECT NO: GN7039 | OCTOBER 2019

APPENDIX A
Geophysical Investigation Report

PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2019-233)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 89
NCDOT PROJECT R-5726 (50218.1.1)

4039 N.C. 211, WEST END, NC

August 23, 2019

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GEOPHYSICAL INVESTIGATION REPORT
Parcel 89 - 4039 N.C. 211
West End, Moore County, North Carolina

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LIST OF ACRONYMS

CADD .....Computer Assisted Drafting and Design
DF .....Dual Frequency
EM.....Electromagnetic
GPR.....Ground Penetrating Radar
GPS .....Global Positioning System
NCDOT.....North Carolina Department of Transportation
ROW .....Right-of-Way
UST .....Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for Geosyntec Consultants of NC, PC at Parcel 89, located at 4039 N.C. 211 in West End, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project R-5726). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 29-31, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. A total of four EM anomalies were identified. The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface. One high-amplitude EM anomaly was suggestive of possible tank(s) and was investigated by GPR. The GPR recorded evidence of two discreet, high-amplitude hyperbolic reflectors and two isolated lateral reflectors that were characteristic of USTs. From west to east:

- UST #1 was approximately 15.5 feet long and 8.5 feet wide
- UST #2 was approximately 14 feet long and 8 feet wide.

The remaining GPR did not record any additional evidence of buried structures such as USTs. Collectively, the geophysical data recorded evidence of two probable metallic USTs at Parcel 89.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Geosyntec Consultants of NC, PC at Parcel 89, located at 4039 N.C. 211 in West End, NC. The survey was part of an NCDOT Right-of-Way (ROW) investigation (NCDOT Project R-5726). The survey was designed to extend from the existing edge of pavement into the proposed ROW and/or easements, whichever distance was greater. Conducted from July 29-31, 2019, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included a vacant building surrounded by grass and dirt surfaces. An aerial photograph showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61-MK2 (EM61) metal detector integrated with a Geode External GPS/GLONASS receiver. The integrated GPS system allows the location of the instrument to be recorded in real-time during data collection, resulting in an EM data set that is geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site with marks every 10 feet to maintain orientation of the instrument throughout the survey and assure complete coverage of the area.

According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. The EM61 data were digitally collected at approximately 0.8-foot intervals along north-south trending or east-west trending, generally parallel survey lines, spaced five feet apart. The data were downloaded to a

computer and reviewed in the field and office using the Geonics NAV61 and Surfer for Windows Version 15.0 software programs.

GPR data were acquired across select EM anomalies on July 31, 2019, using a Geophysical Survey Systems, Inc. (GSSI) SIR 4000 controller coupled to a 350 MHz HS antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 6 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid's classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Trailer	✓
2	Fence	
3	Water Spigot	
4	**Two Probable USTs**	✓
5	Fence	
6	Sign	
7	Hydrant	

The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface, including a trailer, a fence, a water spigot, a sign and a hydrant. EM Anomaly 4 was associated with a high-amplitude EM anomaly that was suggestive of possible USTs and was investigated by GPR. Additionally, GPR was performed around the trailer to confirm that the metallic interference did not obscure any buried structures such as USTs.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property as well as select transect images. All of the transect images are included in **Appendix A**. A total of five GPR transects were performed at the property. GPR Transects 1 and 2 were performed around the metallic interference caused by the trailer, and did not record any evidence of buried structures.

GPR Transects 3-5 were performed across EM Anomaly 4. These transects recorded two discreet, high-amplitude hyperbolic reflectors and two isolated lateral reflectors that were characteristic of USTs. The combined EM and GPR data result in these features being classified as two probable metallic USTs. From west to east: UST #1 was approximately 15.5 feet long and 8.5 feet wide and UST #2 was approximately 14 feet long and 8 feet wide. **Figure 4** provides the locations and sizes of the two probable USTs overlain on an aerial photograph as well as a ground-level photograph. **Figure 5** provides an overlay of the metal detection results and the two probable USTs onto the NCDOT Engineering plans.

Collectively, the geophysical data recorded evidence of two probable metallic USTs at Parcel 89.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 89 in West End, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- The majority of the EM anomalies were directly attributed to visible cultural features at the ground surface.
- One high-amplitude EM anomaly was suggestive of possible tank(s) and was investigated by GPR.
- The GPR recorded evidence of two discreet, high-amplitude hyperbolic reflectors and two isolated lateral reflectors that were characteristic of USTs. From west to east:
    - UST #1 was approximately 15.5 feet long and 8.5 feet wide
    - UST #2 was approximately 14 feet long and 8 feet wide.
- The remaining GPR did not record any additional evidence of buried structures such as USTs.
- Collectively, the geophysical data recorded evidence of two probable metallic USTs at Parcel 89.

LIMITATIONS

Geophysical surveys have been performed and this report was prepared for Geosyntec Consultants of NC, PC in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR

results obtained for this project have not conclusively determined the definitive presence or absence of metallic USTs, but the evidence collected is sufficient to result in the conclusions made in this report. Additionally, it should be understood that areas containing extensive vegetation, reinforced concrete, or other restrictions to the accessibility of the geophysical instruments could not be fully investigated.

APPROXIMATE BOUNDARIES OF GEOPHYSICAL SURVEY AREA

View of Survey Area
(Facing Approximately West)

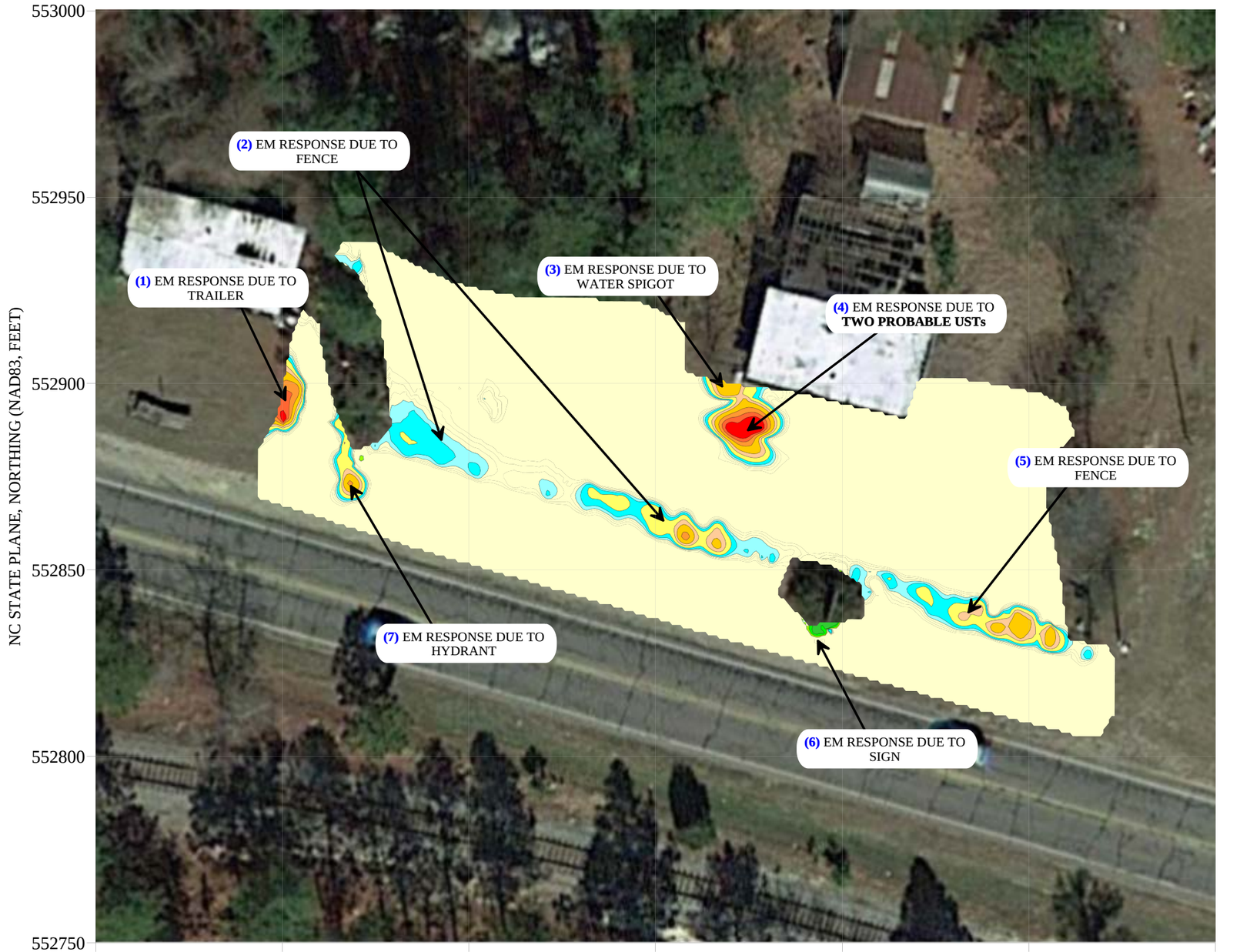
View of Survey Area
(Facing Approximately East)

N

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT: PARCEL 89 WEST END, NORTH CAROLINA NCDOT PROJECT R-5726	TITLE: PARCEL 89 - GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS	DATE: 8/8/2019 PYRAMID PROJECT #: 2019-233	CLIENT: GEOSYNTEC **FIGURE 1**

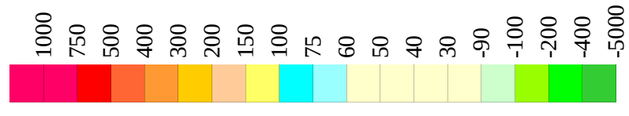
EM61 METAL DETECTION RESULTS



EVIDENCE OF TWO PROBABLE METALLIC USTs WAS OBSERVED.

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM data were collected on July 29 and August 7, 2019, using a Geonics EM61-MK2 instrument. Verification GPR data were collected using a GSSI SIR 4000 controller with a 350 MHz HS antenna on July 31 and August 7, 2019.

EM61 Metal Detection Response (millivolts)



N

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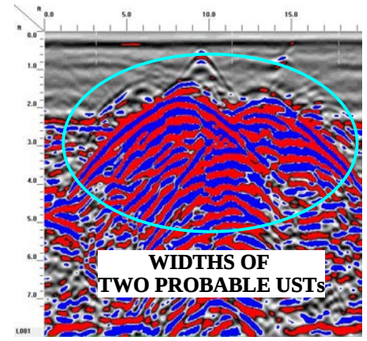
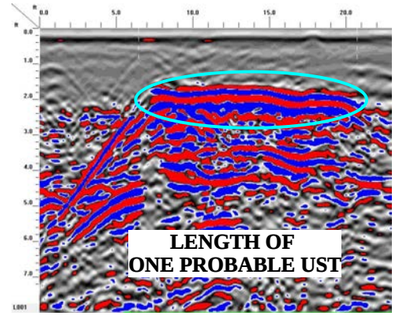
License # C1251 Eng. / License # C257 Geology

PROJECT: PARCEL 89 WEST END, NORTH CAROLINA NCDOT PROJECT R-5726	TITLE: PARCEL 89 - EM61 METAL DETECTION CONTOUR MAP	DATE: 8/8/2019 PYRAMID PROJECT #: 2019-233	CLIENT: GEOSYNTEC **FIGURE 2**

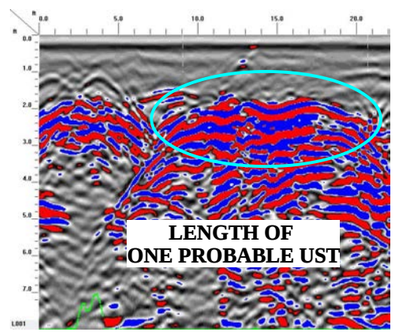
LOCATIONS OF GPR TRANSECTS



GPR TRANSECT 1 (T1)



GPR TRANSECT 2 (T2)



GPR TRANSECT 3 (T3)

N

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503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 89 WEST END, NORTH CAROLINA NCDOT PROJECT R-5726	TITLE	PARCEL 89 - GPR TRANSECT LOCATIONS AND SELECT IMAGES	DATE 8/8/2019	CLIENT GEOSYNTEC
				PYRAMID PROJECT #: 2019-233	**FIGURE 3**

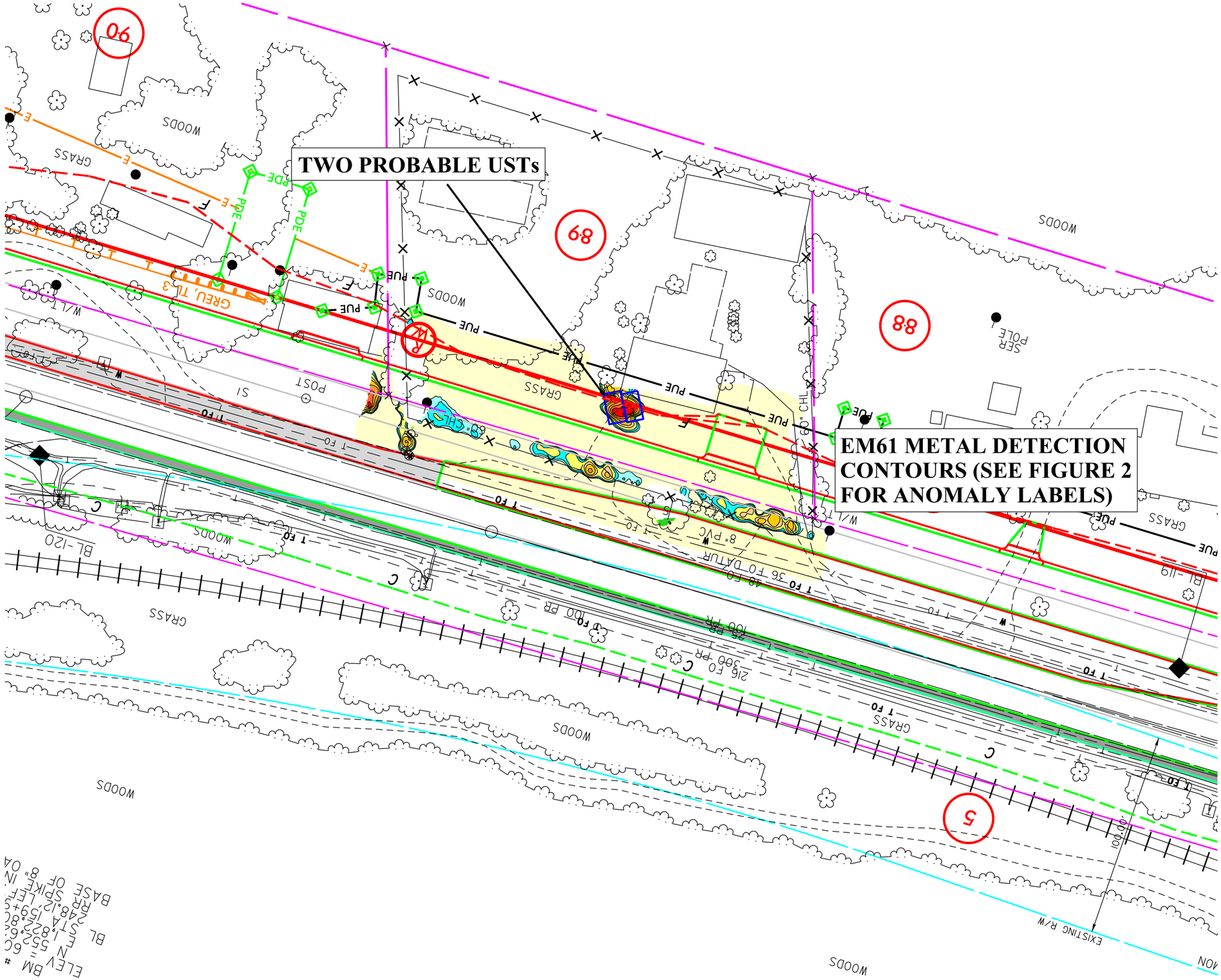
View of Two Probable USTs
Facing Approximately North

View of Two Probable USTs
Facing Approximately East

N

PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

PROJECT	PARCEL 89 WEST END, NORTH CAROLINA NCDOT PROJECT R-5726	TITLE	PARCEL 89 - LOCATIONS AND SIZES OF TWO PROBABLE USTs	DATE 8/8/2019 CLIENT GEOSYNTEC
				PYRAMID PROJECT #: 2019-233 **FIGURE 4**



LEGEND

- EXISTING ROW
- EXISTING PROPERTY BOUNDARY
- PROPOSED ROW LINE
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT DRAINAGE
- PROPOSED SS CUT LINE
- PROPOSED SS FILL LINE
- PROBABLE UST

MILLIVOLTS (mV)

1000 750 500 400 300 200 150 100 75 60 50 40 30 -90 -100 -200 -400 -5000

0 25 50
FEET

N

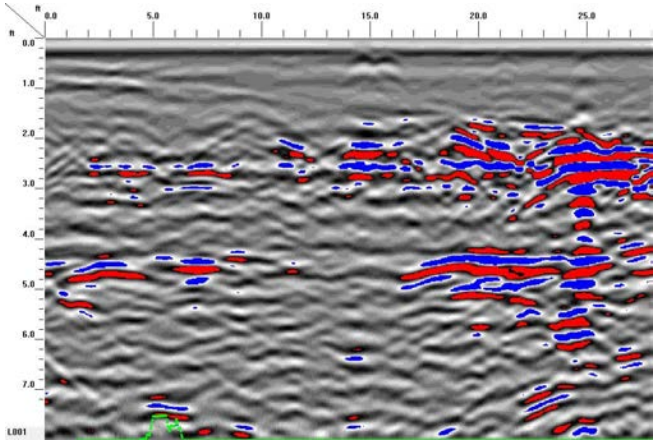
TITLE: OVERLAY OF METAL DETECTION RESULTS AND TWO PROBABLE USTs ON NCDOT ENGINEERING PLANS

PROJECT: PARCEL 89
WEST END, NORTH CAROLINA
NCDOT PROJECT R-5726

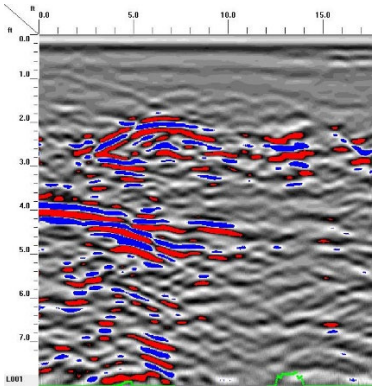
PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
336.335.3174 (p) 336.691.0648 (f)
License # C1251 Eng. / #C257 Geology

DATE: 08-20-2019	REVISION NO. 0
PYRAMID PROJECT NO. 2019-233	FIGURE NO. 5

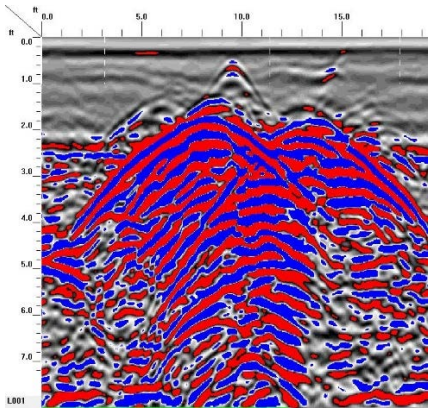
Appendix A – GPR Transect Images



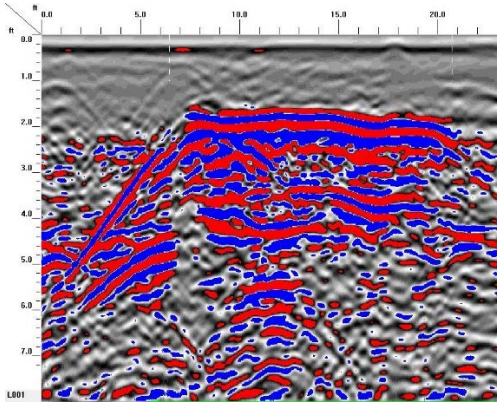
GPR TRANSECT 1



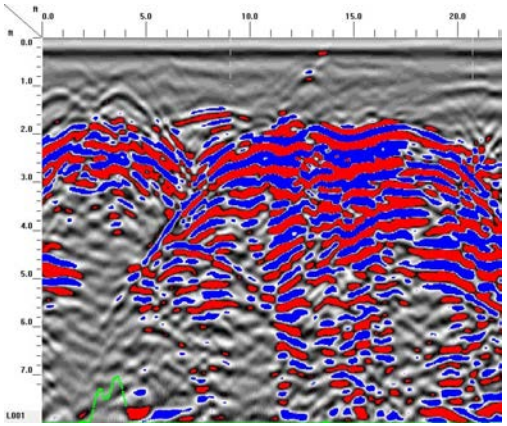
GPR TRANSECT 2



GPR TRANSECT 3



GPR TRANSECT 4



GPR TRANSECT 5

APPENDIX B
Photographic Log

GEOSYNTEC CONSULTANTS
Photographic Record

Geosyntec Consultants of NC, PC

Client: NCDOT	**Project Number: GN7039**
Site Name: R-5726 - Parcel 89	**Site Location: 4039 NC 211, West End, NC**

Photograph 1	
Date: 29 July 2019	
Direction: NW	
Comments: View of the southwestern side of the Site building and the two probable USTs. The PUE area extends to the southern edge of the Site building.	

Photograph 2	
Date: 29 July 2019	
Direction: NE	
Comments: View of the southeastern side of the Site.	

APPENDIX C
Soil Boring Logs

Geosyntec consultants

BORING LOG

BORING NO. SB89-01

SHEET 1 OF 1

DRILLING CO.: Sweetwater	Status: ☐ Well Installed ☐ Plugged & Abdnd. ☐	SITE: NCDOT West End	Borehole Location Sketch Map
METHOD & TOOLS: Hand Auger		PROJECT NO.: GN7039	
RIG: —		N: E:	
BIT DIAMETER: —	DRILLER: Trey	SUPERVISOR: M Wang	
GROUND ELEV.: ☐ Surveyed ☐ Estimated		DATE: 8/15/19	

Top (Depth)	☐ Feet ☐ Meters	Lithology Log	Graphic Log	Depth Scale	Well	SPT Blows/6"	Run (No.)	Rec. (%)	Drilling Log
~~0-0.5~~ 0-0.5 ft		Organic Debris						100	Hand Auger
0-5 ft		0.5-2 ft, brown fine sand, dry-moist,							PID=0
		2-5 ft, light brown fine-medium sand, dry-moist, poorly sorted.							
5-10 ft		5-7.5 ft. Same as 2-5 ft interval						100	Hand Auger
		7.5-10 ft, saprolite, brown sand, ~~fine~~ Fine-Medium, mixed with clay (weathered) & gravels.							PID=0
		Samples are collected from 5-5.5 ft @ 0900							
		SB89-01-5-5.5							

Geosyntec consultants

BORING LOG

BORING NO. SB89-02

SHEET 1 OF 1

DRILLING CO.: Soedacco	Status: ☐ Well Installed ☐ Plugged & Abdnd. ☐	SITE: NCDOT West End	Borehole Location Sketch Map
METHOD & TOOLS: Hand Auger		PROJECT NO.: GN7039	
RIG: —		N: E:	
BIT DIAMETER: —	DRILLER: Trey B	SUPERVISOR: M Way	
GROUND ELEV.: ☐ Surveyed ☐ Estimated		DATE: 8/15/19	

Top (Depth) ☐ Feet ☐ Meters	Lithology Log	Graphic Log	Depth Scale	Well	SPT Blows/6"	Run (No.)	Rec. (%)	Drilling Log
0-5 ft	0-0.5 ft, organic debris 0.5-~~ft~~ 2.5 ft, brown fine-medium sand, dry-moist, some gravels, 2.5-5 ft, Light brown fine-medium sand, dry-moist, poorly sorted						100	Hand Auger PID=0
5-10 ft	5-7 ft. same as above. 7-10 ft, saprolite, brown fine-medium sand, mixed with reddish color clay & gravels, Hard, dry-moist Sample are collected from 5.5-6 ft @ 0940 SB89-02-5.5-6						100	PID=0

Geosyntec consultants

BORING LOG

BORING NO. SB89-03

SHEET 1 OF 1

DRILLING CO.: Cascade	Status: ☐ Well Installed ☐ Plugged & Abdnd. ☐	SITE: NCDOT West End	Borehole Location Sketch Map
METHOD & TOOLS: Hand Auger		PROJECT NO.: GN7039	
RIG: —		N: E:	
BIT DIAMETER: —	DRILLER: Trey B	SUPERVISOR: M Wang	
GROUND ELEV.: ☐ Surveyed ☐ Estimated		DATE: 8/15/19	

Top (Depth) ☐ Feet ☐ Meters	Lithology Log	Graphic Log	Depth Scale	Well	SPT Blows/6"	Run (No.)	Rec. (%)	Drilling Log
0-5 ft	0-0.5ft Organic Debris						100	Hand Auger PID=0
	0.5-2.5ft Brown fine-medium sand, dry-moist, loose.							
	2.5-5 ft, Light brown sand, fine-medium, poorly sorted, loose							
5-10 ft	5-7 ft, same as above.						low	PID=0
	7-10 ft, saprolite, brown sand mixed with grey clay & reddish ~~tan~~ gravel							
	samples are collected from 6.5-7 ft, @ 1030							
	SB89-03-6.5-7							

MW

Geosyntec consultants

BORING LOG

BORING NO. SB89-04

SHEET 1 OF 1

DRILLING CO.: Saedacco	Status: ☐ Well Installed ☐ Plugged & Abdnd. ☐	SITE: West End.	Borehole Location Sketch Map
METHOD & TOOLS: Hand Auger		PROJECT NO.: 60N7039	
RIG: —		N: E:	
BIT DIAMETER: —	DRILLER: Troy B	SUPERVISOR: M Wang	
GROUND ELEV.: ☐ Surveyed ☐ Estimated		DATE: 8/15/19	

Top (Depth) ☐ Feet ☐ Meters	Lithology Log	Graphic Log	Depth Scale	Well	SPT Blows/6"	Run (No.)	Rec. (%)	Drilling Log
0-5 ft	0-0.5 ft Organic Debris 0.5-2 ft. brown sand, fine-medium, loose, dry-moist 2-5 ft, Light brown sand, fine, dry, loose, poorly sorted.						100	Hand Auger PID = 0
5-10 ft	5-7 ft, same as 2-5 ft interval 7-10 ft, saprolite, moist brown sand, some clay & gravels. dry-moist, loose-compact, Hard to penetrate Samples are collected from 7-7.5 ft, @ 1120 SB89-04-7-7.5						100	Hand Auger PID = 0

MW

APPENDIX D
Red Lab UVF Report

QED

AQROS

Hydrocarbon Analysis Results

Client: Geosytec
Address: 2501 Blue Ridge Rd
Suite 430
Raleigh, NC 27606

Contact: Michael Wang

Project: 9795515334

Samples taken Tuesday, August 13, 2019
Samples extracted Tuesday, August 13, 2019
Samples analysed Friday, August 16, 2019

Operator Harry Wooten

U00904

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
										C5 - C10	C10 - C18	C18	
s	SB89-1-5-5.5	24.1	<0.6	<0.6	<0.6	<0.6	<0.12	<0.19	<0.024	0	0	0	PHC not detected
s	SB89-2-5.5-6	13.7	<0.34	<0.34	<0.34	<0.34	<0.07	<0.11	<0.014	0	82.6	17.4	,(FCM),(P)
s	SB89-3-6.5-7	15.1	<0.38	<0.38	0.38	0.38	0.38	<0.12	<0.015	0	55.7	44.3	Residual HC
s	SB89-4-7-7.5	18.4	<0.46	<0.46	<0.46	<0.46	<0.09	<0.15	<0.018	94	6	0	Residual HC

Initial Calibrator QC check OK

Final FCM QC Check OK 103.7 %

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.

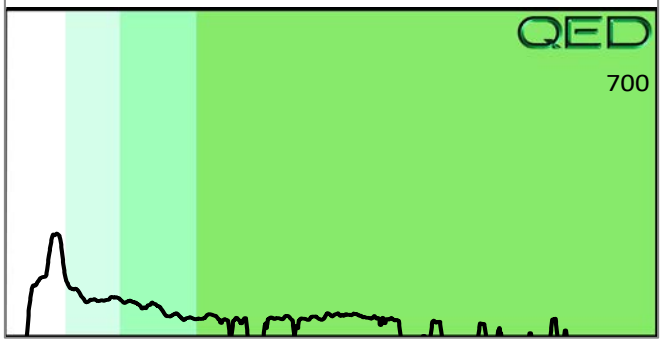
% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**

QED Hydrocarbon Fingerprints

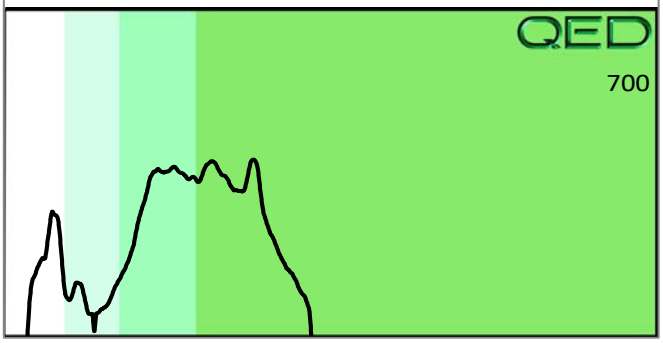
Project: R5726

8/16/19

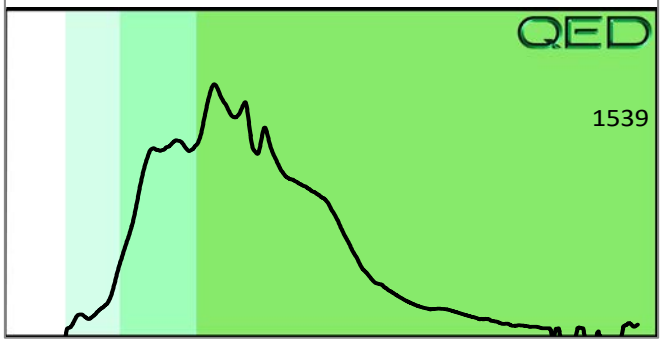
SB89-1-5-5.5 : PHC not detected



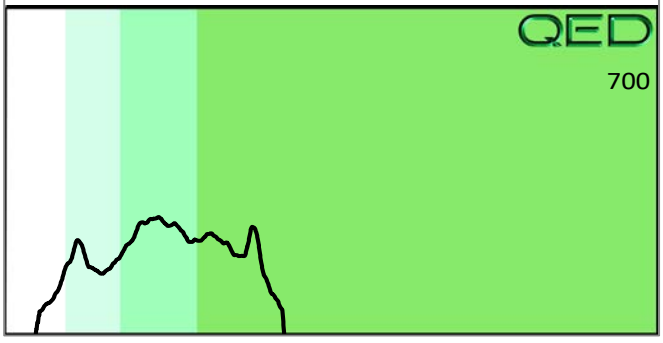
SB89-2-5.5-6 : ,(FCM),(P)



SB89-3-6.5-7 : Residual HC



SB89-4-7-7.5 : Residual HC



APPENDIX E
Prism Laboratories Analytical Report

PRISM LABORATORIES, INC.
Full-Service Analytical & Environmental Solutions

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

Case Narrative

8/28/19 11:20

Geosyntec Consultants of NC, PC - Raleigh
Michael Wang
2501 Blue Ridge Road, Ste 430
Raleigh, NC 27607

Project: NCDOT R-5726 West End
Project No.: GN7039
Lab Submittal Date: 08/16/2019
Prism Work Order: 9080260

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

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

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

Respectfully,

PRISM LABORATORIES, INC.

Robbi A. Jones

President/Project Manager

Reviewed By Robbi A. Jones

President/Project Manager

Data Qualifiers Key Reference:

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

Sample Receipt Summary

08/28/2019

Prism Work Order: 9080260

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
SB13-01-7.5-8.0	9080260-01	Solid	08/12/19 10:30	08/16/19 9:15
SB13-02-7-7.5	9080260-02	Solid	08/12/19 11:00	08/16/19 9:15
SB13-03-6.5-7.0	9080260-03	Solid	08/12/19 11:30	08/16/19 9:15
SB43-01-4.5-5.0	9080260-04	Solid	08/13/19 13:40	08/16/19 9:15
SB43-02-6.5-7.0	9080260-05	Solid	08/13/19 14:00	08/16/19 9:15
SB43-03-7.0-7.5	9080260-06	Solid	08/13/19 14:30	08/16/19 9:15
SB43-04-7.5-8.0	9080260-07	Solid	08/13/19 14:45	08/16/19 9:15
SB66867-01-5-5.5	9080260-08	Solid	08/13/19 8:40	08/16/19 9:15
SB66867-02-4.0-4.5	9080260-09	Solid	08/13/19 9:10	08/16/19 9:15
SB66867-03-6.5-7	9080260-10	Solid	08/13/19 10:20	08/16/19 9:15
SB66867-04-5.5-6.0	9080260-11	Solid	08/13/19 9:45	08/16/19 9:15
SB66867-05-7-7.5	9080260-12	Solid	08/13/19 11:10	08/16/19 9:15
SB66867-06-7.5-8	9080260-13	Solid	08/13/19 12:20	08/16/19 9:15
SB69-01-6.0-6.5	9080260-14	Solid	08/12/19 13:00	08/16/19 9:15
SB69-02-4.0-4.5	9080260-15	Solid	08/12/19 13:30	08/16/19 9:15
SB69-03-5.0-5.5	9080260-16	Solid	08/12/19 14:00	08/16/19 9:15
SB69-04-5.0-5.5	9080260-17	Solid	08/12/19 14:45	08/16/19 9:15
SB69-05-9.5-10	9080260-18	Solid	08/12/19 15:25	08/16/19 9:15
SB69-06-9-9.5	9080260-19	Solid	08/12/19 16:15	08/16/19 9:15
SB69-07-5.0-5.5	9080260-20	Solid	08/12/19 16:45	08/16/19 9:15
SB69-08-6.0-6.5	9080260-21	Solid	08/13/19 13:00	08/16/19 9:15
SB78-01-7-7.5	9080260-22	Solid	08/13/19 15:50	08/16/19 9:15
SB78-02-5.5-6	9080260-23	Solid	08/14/19 8:25	08/16/19 9:15
SB78-03-6-6.5	9080260-24	Solid	08/14/19 9:00	08/16/19 9:15
SB78-04-6.5-7	9080260-25	Solid	08/14/19 9:30	08/16/19 9:15
SB89-01-5-5.5	9080260-26	Solid	08/15/19 9:00	08/16/19 9:15
SB89-02-5.5-6	9080260-27	Solid	08/15/19 9:40	08/16/19 9:15
SB89-03-6.5-7	9080260-28	Solid	08/15/19 10:30	08/16/19 9:15
SB89-04-7-7.5	9080260-29	Solid	08/15/19 11:30	08/16/19 9:15
SB102-01-2.5-3	9080260-30	Solid	08/14/19 10:50	08/16/19 9:15
SB102-02-5.5-6	9080260-31	Solid	08/14/19 11:35	08/16/19 9:15
SB102-03-7-7.5	9080260-32	Solid	08/14/19 13:00	08/16/19 9:15
SB102-04-7.5-8	9080260-33	Solid	08/14/19 13:30	08/16/19 9:15

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

SB102-05-4.5-5	9080260-34	Solid	08/14/19 14:00	08/16/19 9:15
SB102-06-0.5-1	9080260-35	Solid	08/14/19 14:50	08/16/19 9:15
SB102-07-7.5-8	9080260-36	Solid	08/14/19 15:35	08/16/19 9:15
SB102-08-8-8.5	9080260-37	Solid	08/14/19 16:05	08/16/19 9:15
SB102-09-8.5-9	9080260-38	Solid	08/14/19 16:45	08/16/19 9:15
SB102-10-9-9.5	9080260-39	Solid	08/14/19 17:20	08/16/19 9:15

Samples were received in good condition at 3.3 degrees C unless otherwise noted.

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Summary of Detections

08/28/2019

Prism Work Order: 9080260

Prism ID	Client ID	Parameter	Method	Result	Units

There were no detections reported.

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Geosyntec Consultants of NC, PC - Raleigh
Attn: Michael Wang
2501 Blue Ridge Road, Ste 430
Raleigh, NC 27607

Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB13-01-7.5-8.0
Prism Sample ID: 9080260-01
Prism Work Order: 9080260
Time Collected: 08/12/19 10:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**91.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0071	0.0011	1	8260D	8/20/19 17:51	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0071	0.0011	1	8260D	8/20/19 17:51	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0018	1	8260D	8/20/19 17:51	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0071	0.00075	1	8260D	8/20/19 17:51	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0071	0.0011	1	8260D	8/20/19 17:51	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.021	0.0025	1	8260D	8/20/19 17:51	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*99 %*	*70-130*
Dibromofluoromethane	*112 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Raleigh, NC 27607

Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB13-02-7-7.5
Prism Sample ID: 9080260-02
Prism Work Order: 9080260
Time Collected: 08/12/19 11:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**86.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0069	0.0011	1	8260D	8/20/19 18:21	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0069	0.0010	1	8260D	8/20/19 18:21	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0018	1	8260D	8/20/19 18:21	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0069	0.00074	1	8260D	8/20/19 18:21	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0069	0.0011	1	8260D	8/20/19 18:21	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.021	0.0025	1	8260D	8/20/19 18:21	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*98 %*	*70-130*
Dibromofluoromethane	*114 %*	*84-123*
Toluene-d8	*94 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB13-03-6.5-7.0
Prism Sample ID: 9080260-03
Prism Work Order: 9080260
Time Collected: 08/12/19 11:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**95.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0051	0.00079	1	8260D	8/20/19 18:51	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0051	0.00077	1	8260D	8/20/19 18:51	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.010	0.0013	1	8260D	8/20/19 18:51	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0051	0.00054	1	8260D	8/20/19 18:51	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0051	0.00081	1	8260D	8/20/19 18:51	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.015	0.0018	1	8260D	8/20/19 18:51	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*116 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB43-01-4.5-5.0
Prism Sample ID: 9080260-04
Prism Work Order: 9080260
Time Collected: 08/13/19 13:40
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**97.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0053	0.00083	1	8260D	8/20/19 19:21	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0053	0.00080	1	8260D	8/20/19 19:21	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/20/19 19:21	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/20/19 19:21	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0053	0.00084	1	8260D	8/20/19 19:21	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/20/19 19:21	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*113 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB43-02-6.5-7.0
Prism Sample ID: 9080260-05
Prism Work Order: 9080260
Time Collected: 08/13/19 14:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**91.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0073	0.0011	1	8260D	8/22/19 15:18	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0073	0.0011	1	8260D	8/22/19 15:18	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.015	0.0019	1	8260D	8/22/19 15:18	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0073	0.00077	1	8260D	8/22/19 15:18	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0073	0.0012	1	8260D	8/22/19 15:18	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.022	0.0026	1	8260D	8/22/19 15:18	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*103 %*	*70-130*	
Dibromofluoromethane	*127 %*	*84-123*	*SR*
Toluene-d8	*93 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB43-03-7.0-7.5
Prism Sample ID: 9080260-06
Prism Work Order: 9080260
Time Collected: 08/13/19 14:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**75.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0061	0.00095	1	8260D	8/20/19 20:21	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0061	0.00091	1	8260D	8/20/19 20:21	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/20/19 20:21	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0061	0.00065	1	8260D	8/20/19 20:21	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0061	0.00097	1	8260D	8/20/19 20:21	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.018	0.0022	1	8260D	8/20/19 20:21	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*120 %*	*84-123*
Toluene-d8	*96 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB43-04-7.5-8.0
Prism Sample ID: 9080260-07
Prism Work Order: 9080260
Time Collected: 08/13/19 14:45
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**84.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0054	0.00085	1	8260D	8/20/19 20:51	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0054	0.00082	1	8260D	8/20/19 20:51	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/20/19 20:51	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0054	0.00058	1	8260D	8/20/19 20:51	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0054	0.00086	1	8260D	8/20/19 20:51	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.016	0.0020	1	8260D	8/20/19 20:51	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*101 %*	*70-130*
Dibromofluoromethane	*119 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-01-5-5.5
Prism Sample ID: 9080260-08
Prism Work Order: 9080260
Time Collected: 08/13/19 08:40
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**90.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0050	0.00078	1	8260D	8/20/19 21:21	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0050	0.00075	1	8260D	8/20/19 21:21	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.010	0.0013	1	8260D	8/20/19 21:21	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0050	0.00053	1	8260D	8/20/19 21:21	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0050	0.00080	1	8260D	8/20/19 21:21	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.015	0.0018	1	8260D	8/20/19 21:21	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*99 %*	*70-130*
Dibromofluoromethane	*122 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-02-4.0-4.5
Prism Sample ID: 9080260-09
Prism Work Order: 9080260
Time Collected: 08/13/19 09:10
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**86.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0061	0.00096	1	8260D	8/20/19 21:51	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0061	0.00092	1	8260D	8/20/19 21:51	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/20/19 21:51	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0061	0.00065	1	8260D	8/20/19 21:51	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0061	0.00098	1	8260D	8/20/19 21:51	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.018	0.0022	1	8260D	8/20/19 21:51	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*100 %*	*70-130*
Dibromofluoromethane	*118 %*	*84-123*
Toluene-d8	*97 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-03-6.5-7
Prism Sample ID: 9080260-10
Prism Work Order: 9080260
Time Collected: 08/13/19 10:20
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**90.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0059	0.00092	1	8260D	8/20/19 22:20	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0059	0.00088	1	8260D	8/20/19 22:20	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/20/19 22:20	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0059	0.00063	1	8260D	8/20/19 22:20	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0059	0.00094	1	8260D	8/20/19 22:20	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.018	0.0021	1	8260D	8/20/19 22:20	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*99 %*	*70-130*
Dibromofluoromethane	*120 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-04-5.5-6.0
Prism Sample ID: 9080260-11
Prism Work Order: 9080260
Time Collected: 08/13/19 09:45
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**94.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0056	0.00088	1	8260D	8/20/19 22:50	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0056	0.00085	1	8260D	8/20/19 22:50	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/20/19 22:50	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0056	0.00060	1	8260D	8/20/19 22:50	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0056	0.00090	1	8260D	8/20/19 22:50	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.017	0.0020	1	8260D	8/20/19 22:50	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*97 %*	*70-130*
Dibromofluoromethane	*118 %*	*84-123*
Toluene-d8	*96 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-05-7-7.5
Prism Sample ID: 9080260-12
Prism Work Order: 9080260
Time Collected: 08/13/19 11:10
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**89.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0060	0.00094	1	8260D	8/20/19 23:20	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00091	1	8260D	8/20/19 23:20	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/20/19 23:20	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0060	0.00064	1	8260D	8/20/19 23:20	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0060	0.00096	1	8260D	8/20/19 23:20	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.018	0.0022	1	8260D	8/20/19 23:20	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*119 %*	*84-123*
Toluene-d8	*94 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB66867-06-7.5-8
Prism Sample ID: 9080260-13
Prism Work Order: 9080260
Time Collected: 08/13/19 12:20
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**89.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0049	0.00076	1	8260D	8/19/19 16:12	JLB	P9H0310
Ethylbenzene	BRL	mg/kg dry	0.0049	0.00074	1	8260D	8/19/19 16:12	JLB	P9H0310
m,p-Xylenes	BRL	mg/kg dry	0.0098	0.0013	1	8260D	8/19/19 16:12	JLB	P9H0310
o-Xylene	BRL	mg/kg dry	0.0049	0.00052	1	8260D	8/19/19 16:12	JLB	P9H0310
Toluene	BRL	mg/kg dry	0.0049	0.00078	1	8260D	8/19/19 16:12	JLB	P9H0310
Xylenes, total	BRL	mg/kg dry	0.015	0.0018	1	8260D	8/19/19 16:12	JLB	P9H0310

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*100 %*	*70-130*
Dibromofluoromethane	*110 %*	*84-123*
Toluene-d8	*97 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-01-6.0-6.5
Prism Sample ID: 9080260-14
Prism Work Order: 9080260
Time Collected: 08/12/19 13:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**90.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0052	0.00081	1	8260D	8/21/19 19:41	JLB	P9H0366
Ethylbenzene	BRL	mg/kg dry	0.0052	0.00078	1	8260D	8/21/19 19:41	JLB	P9H0366
m,p-Xylenes	BRL	mg/kg dry	0.010	0.0013	1	8260D	8/21/19 19:41	JLB	P9H0366
o-Xylene	BRL	mg/kg dry	0.0052	0.00055	1	8260D	8/21/19 19:41	JLB	P9H0366
Toluene	BRL	mg/kg dry	0.0052	0.00082	1	8260D	8/21/19 19:41	JLB	P9H0366
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/21/19 19:41	JLB	P9H0366

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*103 %*	*70-130*
Dibromofluoromethane	*123 %*	*84-123*
Toluene-d8	*92 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-02-4.0-4.5
Prism Sample ID: 9080260-15
Prism Work Order: 9080260
Time Collected: 08/12/19 13:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**95.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0080	0.0012	1	8260D	8/21/19 0:20	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0080	0.0012	1	8260D	8/21/19 0:20	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.016	0.0020	1	8260D	8/21/19 0:20	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0080	0.00085	1	8260D	8/21/19 0:20	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0080	0.0013	1	8260D	8/21/19 0:20	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.024	0.0029	1	8260D	8/21/19 0:20	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*103 %*	*70-130*
Dibromofluoromethane	*122 %*	*84-123*
Toluene-d8	*95 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-03-5.0-5.5
Prism Sample ID: 9080260-16
Prism Work Order: 9080260
Time Collected: 08/12/19 14:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**93.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0043	0.00067	1	8260D	8/21/19 0:49	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0043	0.00064	1	8260D	8/21/19 0:49	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.0086	0.0011	1	8260D	8/21/19 0:49	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0043	0.00046	1	8260D	8/21/19 0:49	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0043	0.00068	1	8260D	8/21/19 0:49	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.013	0.0015	1	8260D	8/21/19 0:49	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*121 %*	*84-123*
Toluene-d8	*96 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-04-5.0-5.5
Prism Sample ID: 9080260-17
Prism Work Order: 9080260
Time Collected: 08/12/19 14:45
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**92.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/22/19 10:22**	**EDV**	**P9H0353**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0049	0.00076	1	8260D	8/21/19 1:19	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0049	0.00074	1	8260D	8/21/19 1:19	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.0098	0.0013	1	8260D	8/21/19 1:19	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0049	0.00052	1	8260D	8/21/19 1:19	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0049	0.00078	1	8260D	8/21/19 1:19	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.015	0.0018	1	8260D	8/21/19 1:19	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*100 %*	*70-130*
Dibromofluoromethane	*123 %*	*84-123*
Toluene-d8	*94 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-05-9.5-10
Prism Sample ID: 9080260-18
Prism Work Order: 9080260
Time Collected: 08/12/19 15:25
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**91.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0056	0.00088	1	8260D	8/21/19 1:50	JLB	P9H0347
Ethylbenzene	BRL	mg/kg dry	0.0056	0.00084	1	8260D	8/21/19 1:50	JLB	P9H0347
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/21/19 1:50	JLB	P9H0347
o-Xylene	BRL	mg/kg dry	0.0056	0.00060	1	8260D	8/21/19 1:50	JLB	P9H0347
Toluene	BRL	mg/kg dry	0.0056	0.00089	1	8260D	8/21/19 1:50	JLB	P9H0347
Xylenes, total	BRL	mg/kg dry	0.017	0.0020	1	8260D	8/21/19 1:50	JLB	P9H0347

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*99 %*	*70-130*
Dibromofluoromethane	*119 %*	*84-123*
Toluene-d8	*94 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-06-9-9.5
Prism Sample ID: 9080260-19
Prism Work Order: 9080260
Time Collected: 08/12/19 16:15
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**87.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0046	0.00072	1	8260D	8/22/19 15:47	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0046	0.00069	1	8260D	8/22/19 15:47	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.0092	0.0012	1	8260D	8/22/19 15:47	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0046	0.00049	1	8260D	8/22/19 15:47	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0046	0.00073	1	8260D	8/22/19 15:47	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.014	0.0017	1	8260D	8/22/19 15:47	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*99 %*	*70-130*	
Dibromofluoromethane	*125 %*	*84-123*	*SR*
Toluene-d8	*92 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-07-5.0-5.5
Prism Sample ID: 9080260-20
Prism Work Order: 9080260
Time Collected: 08/12/19 16:45
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**93.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0051	0.00080	1	8260D	8/22/19 16:17	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0051	0.00077	1	8260D	8/22/19 16:17	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.010	0.0013	1	8260D	8/22/19 16:17	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0051	0.00055	1	8260D	8/22/19 16:17	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0051	0.00082	1	8260D	8/22/19 16:17	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.015	0.0019	1	8260D	8/22/19 16:17	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*102 %*	*70-130*	
Dibromofluoromethane	*127 %*	*84-123*	*SR*
Toluene-d8	*94 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB69-08-6.0-6.5
Prism Sample ID: 9080260-21
Prism Work Order: 9080260
Time Collected: 08/13/19 13:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**85.7**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0060	0.00094	1	8260D	8/26/19 19:27	JLB	P9H0434
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00091	1	8260D	8/26/19 19:27	JLB	P9H0434
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/26/19 19:27	JLB	P9H0434
o-Xylene	BRL	mg/kg dry	0.0060	0.00064	1	8260D	8/26/19 19:27	JLB	P9H0434
Toluene	BRL	mg/kg dry	0.0060	0.00096	1	8260D	8/26/19 19:27	JLB	P9H0434
Xylenes, total	BRL	mg/kg dry	0.018	0.0022	1	8260D	8/26/19 19:27	JLB	P9H0434

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*112 %*	*70-130*
Dibromofluoromethane	*96 %*	*84-123*
Toluene-d8	*101 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB78-01-7-7.5
Prism Sample ID: 9080260-22
Prism Work Order: 9080260
Time Collected: 08/13/19 15:50
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**83.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0053	0.00082	1	8260D	8/22/19 17:34	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0053	0.00079	1	8260D	8/22/19 17:34	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0013	1	8260D	8/22/19 17:34	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/22/19 17:34	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0053	0.00084	1	8260D	8/22/19 17:34	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/22/19 17:34	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*100 %*	*70-130*	
Dibromofluoromethane	*132 %*	*84-123*	*SR*
Toluene-d8	*96 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB78-02-5.5-6
Prism Sample ID: 9080260-23
Prism Work Order: 9080260
Time Collected: 08/14/19 08:25
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**97.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0043	0.00067	1	8260D	8/19/19 16:42	JLB	P9H0310
Ethylbenzene	BRL	mg/kg dry	0.0043	0.00065	1	8260D	8/19/19 16:42	JLB	P9H0310
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0043	0.00050	1	8260D	8/19/19 16:42	JLB	P9H0310
m,p-Xylenes	BRL	mg/kg dry	0.0086	0.0011	1	8260D	8/19/19 16:42	JLB	P9H0310
o-Xylene	BRL	mg/kg dry	0.0043	0.00046	1	8260D	8/19/19 16:42	JLB	P9H0310
Toluene	BRL	mg/kg dry	0.0043	0.00068	1	8260D	8/19/19 16:42	JLB	P9H0310
Xylenes, total	BRL	mg/kg dry	0.013	0.0015	1	8260D	8/19/19 16:42	JLB	P9H0310

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*109 %*	*84-123*
Toluene-d8	*96 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB78-03-6-6.5
Prism Sample ID: 9080260-24
Prism Work Order: 9080260
Time Collected: 08/14/19 09:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**85.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0068	0.0011	1	8260D	8/19/19 17:12	JLB	P9H0310
Ethylbenzene	BRL	mg/kg dry	0.0068	0.0010	1	8260D	8/19/19 17:12	JLB	P9H0310
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0017	1	8260D	8/19/19 17:12	JLB	P9H0310
o-Xylene	BRL	mg/kg dry	0.0068	0.00072	1	8260D	8/19/19 17:12	JLB	P9H0310
Toluene	BRL	mg/kg dry	0.0068	0.0011	1	8260D	8/19/19 17:12	JLB	P9H0310
Xylenes, total	BRL	mg/kg dry	0.020	0.0024	1	8260D	8/19/19 17:12	JLB	P9H0310

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*103 %*	*70-130*
Dibromofluoromethane	*110 %*	*84-123*
Toluene-d8	*96 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB78-04-6.5-7
Prism Sample ID: 9080260-25
Prism Work Order: 9080260
Time Collected: 08/14/19 09:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**85.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0062	0.00097	1	8260D	8/22/19 18:04	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0062	0.00093	1	8260D	8/22/19 18:04	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/22/19 18:04	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0062	0.00066	1	8260D	8/22/19 18:04	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0062	0.00099	1	8260D	8/22/19 18:04	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.019	0.0022	1	8260D	8/22/19 18:04	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*98 %*	*70-130*	
Dibromofluoromethane	*130 %*	*84-123*	*SR*
Toluene-d8	*93 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB89-01-5-5.5
Prism Sample ID: 9080260-26
Prism Work Order: 9080260
Time Collected: 08/15/19 09:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**96.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0056	0.00088	1	8260D	8/22/19 18:34	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0056	0.00085	1	8260D	8/22/19 18:34	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/22/19 18:34	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0056	0.00060	1	8260D	8/22/19 18:34	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0056	0.00090	1	8260D	8/22/19 18:34	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.017	0.0020	1	8260D	8/22/19 18:34	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*98 %*	*70-130*	
Dibromofluoromethane	*127 %*	*84-123*	*SR*
Toluene-d8	*94 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB89-02-5.5-6
Prism Sample ID: 9080260-27
Prism Work Order: 9080260
Time Collected: 08/15/19 09:40
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**96.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0066	0.0010	1	8260D	8/22/19 19:04	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0066	0.0010	1	8260D	8/22/19 19:04	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.013	0.0017	1	8260D	8/22/19 19:04	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0066	0.00070	1	8260D	8/22/19 19:04	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0066	0.0011	1	8260D	8/22/19 19:04	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.020	0.0024	1	8260D	8/22/19 19:04	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*100 %*	*70-130*	
Dibromofluoromethane	*135 %*	*84-123*	*SR*
Toluene-d8	*93 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB89-03-6.5-7
Prism Sample ID: 9080260-28
Prism Work Order: 9080260
Time Collected: 08/15/19 10:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**92.2**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0065	0.0010	1	8260D	8/22/19 19:34	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0065	0.00098	1	8260D	8/22/19 19:34	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.013	0.0017	1	8260D	8/22/19 19:34	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0065	0.00069	1	8260D	8/22/19 19:34	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0065	0.0010	1	8260D	8/22/19 19:34	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.019	0.0023	1	8260D	8/22/19 19:34	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*102 %*	*70-130*	
Dibromofluoromethane	*128 %*	*84-123*	*SR*
Toluene-d8	*90 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB89-04-7-7.5
Prism Sample ID: 9080260-29
Prism Work Order: 9080260
Time Collected: 08/15/19 11:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**93.9**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0062	0.00097	1	8260D	8/22/19 20:03	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0062	0.00094	1	8260D	8/22/19 20:03	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0016	1	8260D	8/22/19 20:03	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0062	0.00066	1	8260D	8/22/19 20:03	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0062	0.00099	1	8260D	8/22/19 20:03	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.019	0.0022	1	8260D	8/22/19 20:03	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*98 %*	*70-130*	
Dibromofluoromethane	*136 %*	*84-123*	*SR*
Toluene-d8	*91 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-01-2.5-3
Prism Sample ID: 9080260-30
Prism Work Order: 9080260
Time Collected: 08/14/19 10:50
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**89.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0069	0.0011	1	8260D	8/22/19 20:33	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0069	0.0010	1	8260D	8/22/19 20:33	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0018	1	8260D	8/22/19 20:33	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0069	0.00073	1	8260D	8/22/19 20:33	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0069	0.0011	1	8260D	8/22/19 20:33	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.021	0.0025	1	8260D	8/22/19 20:33	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*101 %*	*70-130*	
Dibromofluoromethane	*134 %*	*84-123*	*SR*
Toluene-d8	*92 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-02-5.5-6
Prism Sample ID: 9080260-31
Prism Work Order: 9080260
Time Collected: 08/14/19 11:35
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**96.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0059	0.00093	1	8260D	8/22/19 21:03	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0059	0.00089	1	8260D	8/22/19 21:03	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/22/19 21:03	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0059	0.00063	1	8260D	8/22/19 21:03	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0059	0.00095	1	8260D	8/22/19 21:03	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.018	0.0021	1	8260D	8/22/19 21:03	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*100 %*	*70-130*	
Dibromofluoromethane	*133 %*	*84-123*	*SR*
Toluene-d8	*91 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-03-7-7.5
Prism Sample ID: 9080260-32
Prism Work Order: 9080260
Time Collected: 08/14/19 13:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**94.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0053	0.00082	1	8260D	8/22/19 21:33	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0053	0.00079	1	8260D	8/22/19 21:33	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/22/19 21:33	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/22/19 21:33	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0053	0.00084	1	8260D	8/22/19 21:33	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/22/19 21:33	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*99 %*	*70-130*	
Dibromofluoromethane	*132 %*	*84-123*	*SR*
Toluene-d8	*91 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-04-7.5-8
Prism Sample ID: 9080260-33
Prism Work Order: 9080260
Time Collected: 08/14/19 13:30
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**80.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0060	0.00094	1	8260D	8/22/19 22:03	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00091	1	8260D	8/22/19 22:03	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/22/19 22:03	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0060	0.00064	1	8260D	8/22/19 22:03	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0060	0.00096	1	8260D	8/22/19 22:03	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.018	0.0022	1	8260D	8/22/19 22:03	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*97 %*	*70-130*	
Dibromofluoromethane	*131 %*	*84-123*	*SR*
Toluene-d8	*92 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-05-4.5-5
Prism Sample ID: 9080260-34
Prism Work Order: 9080260
Time Collected: 08/14/19 14:00
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**97.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/22/19 22:33	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/22/19 22:33	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.014	0.0018	1	8260D	8/22/19 22:33	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0070	0.00075	1	8260D	8/22/19 22:33	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0070	0.0011	1	8260D	8/22/19 22:33	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.021	0.0025	1	8260D	8/22/19 22:33	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*103 %*	*70-130*	
Dibromofluoromethane	*138 %*	*84-123*	*SR*
Toluene-d8	*96 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-06-0.5-1
Prism Sample ID: 9080260-35
Prism Work Order: 9080260
Time Collected: 08/14/19 14:50
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**88.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0075	0.0012	1	8260D	8/22/19 23:02	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0075	0.0011	1	8260D	8/22/19 23:02	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.015	0.0019	1	8260D	8/22/19 23:02	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0075	0.00080	1	8260D	8/22/19 23:02	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0075	0.0012	1	8260D	8/22/19 23:02	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.022	0.0027	1	8260D	8/22/19 23:02	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*103 %*	*70-130*	
Dibromofluoromethane	*143 %*	*84-123*	*SR*
Toluene-d8	*89 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-07-7.5-8
Prism Sample ID: 9080260-36
Prism Work Order: 9080260
Time Collected: 08/14/19 15:35
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**83.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0043	0.00067	1	8260D	8/22/19 23:33	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0043	0.00065	1	8260D	8/22/19 23:33	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.0086	0.0011	1	8260D	8/22/19 23:33	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0043	0.00046	1	8260D	8/22/19 23:33	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0043	0.00069	1	8260D	8/22/19 23:33	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.013	0.0016	1	8260D	8/22/19 23:33	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*102 %*	*70-130*	
Dibromofluoromethane	*135 %*	*84-123*	*SR*
Toluene-d8	*91 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-08-8-8.5
Prism Sample ID: 9080260-37
Prism Work Order: 9080260
Time Collected: 08/14/19 16:05
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**87.9**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/23/19 8:10**	**EDV**	**P9H0369**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0058	0.00090	1	8260D	8/26/19 18:57	JLB	P9H0434
Ethylbenzene	BRL	mg/kg dry	0.0058	0.00087	1	8260D	8/26/19 18:57	JLB	P9H0434
m,p-Xylenes	BRL	mg/kg dry	0.012	0.0015	1	8260D	8/26/19 18:57	JLB	P9H0434
o-Xylene	BRL	mg/kg dry	0.0058	0.00061	1	8260D	8/26/19 18:57	JLB	P9H0434
Toluene	BRL	mg/kg dry	0.0058	0.00092	1	8260D	8/26/19 18:57	JLB	P9H0434
Xylenes, total	BRL	mg/kg dry	0.017	0.0021	1	8260D	8/26/19 18:57	JLB	P9H0434

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*103 %*	*70-130*
Dibromofluoromethane	*93 %*	*84-123*
Toluene-d8	*99 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-09-8.5-9
Prism Sample ID: 9080260-38
Prism Work Order: 9080260
Time Collected: 08/14/19 16:45
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**87.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/26/19 8:25**	**EDV**	**P9H0406**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0053	0.00082	1	8260D	8/23/19 0:32	JLB	P9H0389
Ethylbenzene	BRL	mg/kg dry	0.0053	0.00079	1	8260D	8/23/19 0:32	JLB	P9H0389
m,p-Xylenes	BRL	mg/kg dry	0.011	0.0014	1	8260D	8/23/19 0:32	JLB	P9H0389
o-Xylene	BRL	mg/kg dry	0.0053	0.00056	1	8260D	8/23/19 0:32	JLB	P9H0389
Toluene	BRL	mg/kg dry	0.0053	0.00084	1	8260D	8/23/19 0:32	JLB	P9H0389
Xylenes, total	BRL	mg/kg dry	0.016	0.0019	1	8260D	8/23/19 0:32	JLB	P9H0389

Surrogate	Recovery	Control Limits	
4-Bromofluorobenzene	*98 %*	*70-130*	
Dibromofluoromethane	*140 %*	*84-123*	*SR*
Toluene-d8	*95 %*	*76-129*	

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Project: NCDOT R-5726 West End

Project No.: GN7039
Sample Matrix: Solid

Client Sample ID: SB102-10-9-9.5
Prism Sample ID: 9080260-39
Prism Work Order: 9080260
Time Collected: 08/14/19 17:20
Time Submitted: 08/16/19 09:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**89.4**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**8/26/19 8:25**	**EDV**	**P9H0406**
Volatile Organic Compounds by GC/MS									
Benzene	BRL	mg/kg dry	0.0048	0.00075	1	8260D	8/26/19 18:27	JLB	P9H0434
Ethylbenzene	BRL	mg/kg dry	0.0048	0.00072	1	8260D	8/26/19 18:27	JLB	P9H0434
m,p-Xylenes	BRL	mg/kg dry	0.0096	0.0012	1	8260D	8/26/19 18:27	JLB	P9H0434
o-Xylene	BRL	mg/kg dry	0.0048	0.00051	1	8260D	8/26/19 18:27	JLB	P9H0434
Toluene	BRL	mg/kg dry	0.0048	0.00077	1	8260D	8/26/19 18:27	JLB	P9H0434
Xylenes, total	BRL	mg/kg dry	0.014	0.0017	1	8260D	8/26/19 18:27	JLB	P9H0434

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*104 %*	*70-130*
Dibromofluoromethane	*95 %*	*84-123*
Toluene-d8	*98 %*	*76-129*

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Project: NCDOT R-5726 West End

Project No: GN7039

Prism Work Order: 9080260
Time Submitted: 8/16/2019 9:15:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0310 - 5035										
Blank (P9H0310-BLK1)				Prepared & Analyzed: 08/19/19						
1,1,1,2-Tetrachloroethane	BRL	0.0050	mg/kg wet							
1,1,1-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	0.0050	mg/kg wet							
1,1,2-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethylene	BRL	0.0050	mg/kg wet							
1,1-Dichloropropylene	BRL	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	BRL	0.010	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.010	mg/kg wet							
1,2,4-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,2-Dibromoethane	BRL	0.0050	mg/kg wet							
1,2-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,2-Dichloroethane	BRL	0.0050	mg/kg wet							
1,2-Dichloropropane	BRL	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,3-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,3-Dichloropropane	BRL	0.0050	mg/kg wet							
1,4-Dichlorobenzene	BRL	0.0050	mg/kg wet							
2,2-Dichloropropane	BRL	0.0050	mg/kg wet							
2-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Isopropyltoluene	BRL	0.0050	mg/kg wet							
Acetone	BRL	0.020	mg/kg wet							
Benzene	BRL	0.0050	mg/kg wet							
Bromobenzene	BRL	0.0050	mg/kg wet							
Bromochloromethane	BRL	0.0050	mg/kg wet							
Bromodichloromethane	BRL	0.0050	mg/kg wet							
Bromoform	BRL	0.0050	mg/kg wet							
Bromomethane	BRL	0.010	mg/kg wet							
Carbon Tetrachloride	BRL	0.0050	mg/kg wet							
Chlorobenzene	BRL	0.0050	mg/kg wet							
Chloroethane	BRL	0.010	mg/kg wet							
Chloroform	BRL	0.0050	mg/kg wet							
Chloromethane	BRL	0.010	mg/kg wet							
cis-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
cis-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Dibromochloromethane	BRL	0.0050	mg/kg wet							
Dichlorodifluoromethane	BRL	0.010	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
Isopropyl Ether	BRL	0.0050	mg/kg wet							
Isopropylbenzene (Cumene)	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
Methyl Butyl Ketone (2-Hexanone)	BRL	0.020	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.020	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.020	mg/kg wet							

Geosyntec Consultants of NC, PC - Raleigh
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Project: NCDOT R-5726 West End

Project No: GN7039

Prism Work Order: 9080260
Time Submitted: 8/16/2019 9:15:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0310 - 5035										
Blank (P9H0310-BLK1)				Prepared & Analyzed: 08/19/19						
Methylene Chloride	BRL	0.0050	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.0050	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
n-Butylbenzene	BRL	0.0050	mg/kg wet							
n-Propylbenzene	BRL	0.0050	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
sec-Butylbenzene	BRL	0.0050	mg/kg wet							
Styrene	BRL	0.0050	mg/kg wet							
tert-Butylbenzene	BRL	0.0050	mg/kg wet							
Tetrachloroethylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
trans-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
trans-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Trichloroethylene	BRL	0.0050	mg/kg wet							
Trichlorofluoromethane	BRL	0.010	mg/kg wet							
Vinyl acetate	BRL	0.010	mg/kg wet							
Vinyl chloride	BRL	0.010	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*50.9*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*53.9*		*ug/L*	*50.00*		*108*	*84-123*			
Surrogate: Toluene-d8	*49.2*		*ug/L*	*50.00*		*98*	*76-129*			
LCS (P9H0310-BS1)				Prepared & Analyzed: 08/19/19						
1,1,1,2-Tetrachloroethane	0.0442	0.0050	mg/kg wet	0.05000		88	72-115			
1,1,1-Trichloroethane	0.0460	0.0050	mg/kg wet	0.05000		92	67-131			
1,1,2,2-Tetrachloroethane	0.0421	0.0050	mg/kg wet	0.05000		84	56-126			
1,1,2-Trichloroethane	0.0421	0.0050	mg/kg wet	0.05000		84	70-133			
1,1-Dichloroethane	0.0432	0.0050	mg/kg wet	0.05000		86	74-127			
1,1-Dichloroethylene	0.0394	0.0050	mg/kg wet	0.05000		79	67-149			
1,1-Dichloropropylene	0.0453	0.0050	mg/kg wet	0.05000		91	71-130			
1,2,3-Trichlorobenzene	0.0432	0.010	mg/kg wet	0.05000		86	68-130			
1,2,3-Trichloropropane	0.0419	0.0050	mg/kg wet	0.05000		84	60-137			
1,2,4-Trichlorobenzene	0.0450	0.010	mg/kg wet	0.05000		90	66-125			
1,2,4-Trimethylbenzene	0.0442	0.0050	mg/kg wet	0.05000		88	69-129			
1,2-Dibromoethane	0.0426	0.0050	mg/kg wet	0.05000		85	70-132			
1,2-Dichlorobenzene	0.0425	0.0050	mg/kg wet	0.05000		85	72-123			
1,2-Dichloroethane	0.0446	0.0050	mg/kg wet	0.05000		89	68-128			
1,2-Dichloropropane	0.0437	0.0050	mg/kg wet	0.05000		87	73-130			
1,3,5-Trimethylbenzene	0.0440	0.0050	mg/kg wet	0.05000		88	69-128			
1,3-Dichlorobenzene	0.0429	0.0050	mg/kg wet	0.05000		86	71-120			
1,3-Dichloropropane	0.0428	0.0050	mg/kg wet	0.05000		86	75-124			
1,4-Dichlorobenzene	0.0428	0.0050	mg/kg wet	0.05000		86	71-123			
2,2-Dichloropropane	0.0463	0.0050	mg/kg wet	0.05000		93	50-142			
2-Chlorotoluene	0.0437	0.0050	mg/kg wet	0.05000		87	67-124			
4-Chlorotoluene	0.0438	0.0050	mg/kg wet	0.05000		88	71-126			
4-Isopropyltoluene	0.0451	0.0050	mg/kg wet	0.05000		90	68-129			
Acetone	0.120	0.020	mg/kg wet	0.1000		120	29-198			

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Project: NCDOT R-5726 West End
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Time Submitted: 8/16/2019 9:15:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0310 - 5035										
LCS (P9H0310-BS1)				Prepared & Analyzed: 08/19/19						
Benzene	0.0433	0.0050	mg/kg wet	0.05000		87	74-127			
Bromobenzene	0.0429	0.0050	mg/kg wet	0.05000		86	73-125			
Bromochloromethane	0.0422	0.0050	mg/kg wet	0.05000		84	72-134			
Bromodichloromethane	0.0456	0.0050	mg/kg wet	0.05000		91	75-122			
Bromoform	0.0467	0.0050	mg/kg wet	0.05000		93	66-135			
Bromomethane	0.0437	0.010	mg/kg wet	0.05000		87	20-180			
Carbon Tetrachloride	0.0464	0.0050	mg/kg wet	0.05000		93	64-143			
Chlorobenzene	0.0429	0.0050	mg/kg wet	0.05000		86	74-118			
Chloroethane	0.0420	0.010	mg/kg wet	0.05000		84	33-149			
Chloroform	0.0442	0.0050	mg/kg wet	0.05000		88	73-127			
Chloromethane	0.0382	0.010	mg/kg wet	0.05000		76	45-143			
cis-1,2-Dichloroethylene	0.0432	0.0050	mg/kg wet	0.05000		86	76-134			
cis-1,3-Dichloropropylene	0.0444	0.0050	mg/kg wet	0.05000		89	71-125			
Dibromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	73-122			
Dichlorodifluoromethane	0.0405	0.010	mg/kg wet	0.05000		81	26-146			
Ethylbenzene	0.0435	0.0050	mg/kg wet	0.05000		87	74-128			
Isopropyl Ether	0.0443	0.0050	mg/kg wet	0.05000		89	59-159			
Isopropylbenzene (Cumene)	0.0440	0.0050	mg/kg wet	0.05000		88	68-126			
m,p-Xylenes	0.0886	0.010	mg/kg wet	0.1000		89	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0480	0.020	mg/kg wet	0.05000		96	61-157			
Methyl Ethyl Ketone (2-Butanone)	0.0510	0.020	mg/kg wet	0.05000		102	63-149			
Methyl Isobutyl Ketone	0.0451	0.020	mg/kg wet	0.05000		90	57-162			
Methylene Chloride	0.0414	0.0050	mg/kg wet	0.05000		83	74-129			
Methyl-tert-Butyl Ether	0.0432	0.0050	mg/kg wet	0.05000		86	70-130			
Naphthalene	0.0428	0.010	mg/kg wet	0.05000		86	57-157			
n-Butylbenzene	0.0460	0.0050	mg/kg wet	0.05000		92	65-135			
n-Propylbenzene	0.0443	0.0050	mg/kg wet	0.05000		89	67-130			
o-Xylene	0.0442	0.0050	mg/kg wet	0.05000		88	74-126			
sec-Butylbenzene	0.0446	0.0050	mg/kg wet	0.05000		89	66-131			
Styrene	0.0438	0.0050	mg/kg wet	0.05000		88	77-121			
tert-Butylbenzene	0.0445	0.0050	mg/kg wet	0.05000		89	67-132			
Tetrachloroethylene	0.0449	0.0050	mg/kg wet	0.05000		90	68-130			
Toluene	0.0435	0.0050	mg/kg wet	0.05000		87	71-129			
trans-1,2-Dichloroethylene	0.0444	0.0050	mg/kg wet	0.05000		89	73-132			
trans-1,3-Dichloropropylene	0.0448	0.0050	mg/kg wet	0.05000		90	68-123			
Trichloroethylene	0.0453	0.0050	mg/kg wet	0.05000		91	75-133			
Trichlorofluoromethane	0.0452	0.010	mg/kg wet	0.05000		90	44-146			
Vinyl acetate	0.0456	0.010	mg/kg wet	0.05000		91	85-161			
Vinyl chloride	0.0430	0.010	mg/kg wet	0.05000		86	48-147			
Xylenes, total	0.133	0.015	mg/kg wet	0.1500		89	74-126			
Surrogate: 4-Bromofluorobenzene	*49.3*		*ug/L*	*50.00*		*99*	*70-130*			
Surrogate: Dibromofluoromethane	*50.5*		*ug/L*	*50.00*		*101*	*84-123*			
Surrogate: Toluene-d8	*49.4*		*ug/L*	*50.00*		*99*	*76-129*			

Geosyntec Consultants of NC, PC - Raleigh
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Time Submitted: 8/16/2019 9:15:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0310 - 5035										
LCS Dup (P9H0310-BSD1)				Prepared & Analyzed: 08/19/19						
1,1,1,2-Tetrachloroethane	0.0447	0.0050	mg/kg wet	0.05000		89	72-115	1	20	
1,1,1-Trichloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	67-131	4	20	
1,1,2,2-Tetrachloroethane	0.0413	0.0050	mg/kg wet	0.05000		83	56-126	2	20	
1,1,2-Trichloroethane	0.0422	0.0050	mg/kg wet	0.05000		84	70-133	0.4	20	
1,1-Dichloroethane	0.0423	0.0050	mg/kg wet	0.05000		85	74-127	2	20	
1,1-Dichloroethylene	0.0402	0.0050	mg/kg wet	0.05000		80	67-149	2	20	
1,1-Dichloropropylene	0.0441	0.0050	mg/kg wet	0.05000		88	71-130	3	20	
1,2,3-Trichlorobenzene	0.0433	0.010	mg/kg wet	0.05000		87	68-130	0.1	20	
1,2,3-Trichloropropane	0.0413	0.0050	mg/kg wet	0.05000		83	60-137	2	20	
1,2,4-Trichlorobenzene	0.0438	0.010	mg/kg wet	0.05000		88	66-125	3	20	
1,2,4-Trimethylbenzene	0.0436	0.0050	mg/kg wet	0.05000		87	69-129	1	20	
1,2-Dibromoethane	0.0434	0.0050	mg/kg wet	0.05000		87	70-132	2	20	
1,2-Dichlorobenzene	0.0426	0.0050	mg/kg wet	0.05000		85	72-123	0.1	20	
1,2-Dichloroethane	0.0446	0.0050	mg/kg wet	0.05000		89	68-128	0.1	20	
1,2-Dichloropropane	0.0435	0.0050	mg/kg wet	0.05000		87	73-130	0.4	20	
1,3,5-Trimethylbenzene	0.0430	0.0050	mg/kg wet	0.05000		86	69-128	2	20	
1,3-Dichlorobenzene	0.0428	0.0050	mg/kg wet	0.05000		86	71-120	0.1	20	
1,3-Dichloropropane	0.0437	0.0050	mg/kg wet	0.05000		87	75-124	2	20	
1,4-Dichlorobenzene	0.0424	0.0050	mg/kg wet	0.05000		85	71-123	0.8	20	
2,2-Dichloropropane	0.0445	0.0050	mg/kg wet	0.05000		89	50-142	4	20	
2-Chlorotoluene	0.0426	0.0050	mg/kg wet	0.05000		85	67-124	3	20	
4-Chlorotoluene	0.0434	0.0050	mg/kg wet	0.05000		87	71-126	1	20	
4-Isopropyltoluene	0.0442	0.0050	mg/kg wet	0.05000		88	68-129	2	20	
Acetone	0.126	0.020	mg/kg wet	0.1000		126	29-198	5	20	
Benzene	0.0421	0.0050	mg/kg wet	0.05000		84	74-127	3	20	
Bromobenzene	0.0431	0.0050	mg/kg wet	0.05000		86	73-125	0.4	20	
Bromochloromethane	0.0425	0.0050	mg/kg wet	0.05000		85	72-134	0.8	20	
Bromodichloromethane	0.0450	0.0050	mg/kg wet	0.05000		90	75-122	1	20	
Bromoform	0.0463	0.0050	mg/kg wet	0.05000		93	66-135	1	20	
Bromomethane	0.0415	0.010	mg/kg wet	0.05000		83	20-180	5	20	
Carbon Tetrachloride	0.0452	0.0050	mg/kg wet	0.05000		90	64-143	3	20	
Chlorobenzene	0.0424	0.0050	mg/kg wet	0.05000		85	74-118	1	20	
Chloroethane	0.0404	0.010	mg/kg wet	0.05000		81	33-149	4	20	
Chloroform	0.0438	0.0050	mg/kg wet	0.05000		88	73-127	1	20	
Chloromethane	0.0366	0.010	mg/kg wet	0.05000		73	45-143	4	20	
cis-1,2-Dichloroethylene	0.0429	0.0050	mg/kg wet	0.05000		86	76-134	0.7	20	
cis-1,3-Dichloropropylene	0.0441	0.0050	mg/kg wet	0.05000		88	71-125	0.6	20	
Dibromochloromethane	0.0444	0.0050	mg/kg wet	0.05000		89	73-122	0.5	20	
Dichlorodifluoromethane	0.0389	0.010	mg/kg wet	0.05000		78	26-146	4	20	
Ethylbenzene	0.0430	0.0050	mg/kg wet	0.05000		86	74-128	1	20	
Isopropyl Ether	0.0437	0.0050	mg/kg wet	0.05000		87	59-159	1	20	
Isopropylbenzene (Cumene)	0.0430	0.0050	mg/kg wet	0.05000		86	68-126	2	20	
m,p-Xylenes	0.0871	0.010	mg/kg wet	0.1000		87	75-124	2	20	
Methyl Butyl Ketone (2-Hexanone)	0.0482	0.020	mg/kg wet	0.05000		96	61-157	0.4	20	
Methyl Ethyl Ketone (2-Butanone)	0.0512	0.020	mg/kg wet	0.05000		102	63-149	0.3	20	
Methyl Isobutyl Ketone	0.0442	0.020	mg/kg wet	0.05000		88	57-162	2	20	

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Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0310 - 5035										
LCS Dup (P9H0310-BSD1)			Prepared & Analyzed: 08/19/19							
Methylene Chloride	0.0412	0.0050	mg/kg wet	0.05000		82	74-129	0.2	20	
Methyl-tert-Butyl Ether	0.0434	0.0050	mg/kg wet	0.05000		87	70-130	0.6	20	
Naphthalene	0.0426	0.010	mg/kg wet	0.05000		85	57-157	0.4	20	
n-Butylbenzene	0.0448	0.0050	mg/kg wet	0.05000		90	65-135	3	20	
n-Propylbenzene	0.0432	0.0050	mg/kg wet	0.05000		86	67-130	2	20	
o-Xylene	0.0441	0.0050	mg/kg wet	0.05000		88	74-126	0.3	20	
sec-Butylbenzene	0.0439	0.0050	mg/kg wet	0.05000		88	66-131	2	20	
Styrene	0.0445	0.0050	mg/kg wet	0.05000		89	77-121	2	20	
tert-Butylbenzene	0.0432	0.0050	mg/kg wet	0.05000		86	67-132	3	20	
Tetrachloroethylene	0.0425	0.0050	mg/kg wet	0.05000		85	68-130	6	20	
Toluene	0.0426	0.0050	mg/kg wet	0.05000		85	71-129	2	20	
trans-1,2-Dichloroethylene	0.0430	0.0050	mg/kg wet	0.05000		86	73-132	3	20	
trans-1,3-Dichloropropylene	0.0444	0.0050	mg/kg wet	0.05000		89	68-123	0.9	20	
Trichloroethylene	0.0435	0.0050	mg/kg wet	0.05000		87	75-133	4	20	
Trichlorofluoromethane	0.0419	0.010	mg/kg wet	0.05000		84	44-146	8	20	
Vinyl acetate	0.0467	0.010	mg/kg wet	0.05000		93	85-161	2	20	
Vinyl chloride	0.0404	0.010	mg/kg wet	0.05000		81	48-147	6	20	
Xylenes, total	0.131	0.015	mg/kg wet	0.1500		87	74-126	1	20	
Surrogate: 4-Bromofluorobenzene	*50.0*		*ug/L*	*50.00*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*50.3*		*ug/L*	*50.00*		*101*	*84-123*			
Surrogate: Toluene-d8	*49.6*		*ug/L*	*50.00*		*99*	*76-129*			
Batch P9H0347 - 5035										
Blank (P9H0347-BLK1)			Prepared & Analyzed: 08/20/19							
Benzene	BRL	0.0050	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*50.2*		*ug/L*	*50.00*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*53.2*		*ug/L*	*50.00*		*106*	*84-123*			
Surrogate: Toluene-d8	*48.9*		*ug/L*	*50.00*		*98*	*76-129*			

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Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0347 - 5035										
LCS (P9H0347-BS1)				Prepared & Analyzed: 08/20/19						
Benzene	0.0533	0.0050	mg/kg wet	0.05000		107	74-127			
Ethylbenzene	0.0547	0.0050	mg/kg wet	0.05000		109	74-128			
m,p-Xylenes	0.111	0.010	mg/kg wet	0.1000		111	75-124			
o-Xylene	0.0558	0.0050	mg/kg wet	0.05000		112	74-126			
Toluene	0.0546	0.0050	mg/kg wet	0.05000		109	71-129			
Xylenes, total	0.167	0.015	mg/kg wet	0.1500		111	74-126			
Surrogate: 4-Bromofluorobenzene	*48.7*		*ug/L*	*50.00*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*51.6*		*ug/L*	*50.00*		*103*	*84-123*			
Surrogate: Toluene-d8	*48.6*		*ug/L*	*50.00*		*97*	*76-129*			
LCS Dup (P9H0347-BSD1)				Prepared & Analyzed: 08/20/19						
Benzene	0.0520	0.0050	mg/kg wet	0.05000		104	74-127	2	20	
Ethylbenzene	0.0536	0.0050	mg/kg wet	0.05000		107	74-128	2	20	
m,p-Xylenes	0.109	0.010	mg/kg wet	0.1000		109	75-124	2	20	
o-Xylene	0.0549	0.0050	mg/kg wet	0.05000		110	74-126	2	20	
Toluene	0.0532	0.0050	mg/kg wet	0.05000		106	71-129	2	20	
Xylenes, total	0.164	0.015	mg/kg wet	0.1500		109	74-126	2	20	
Surrogate: 4-Bromofluorobenzene	*48.3*		*ug/L*	*50.00*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*51.5*		*ug/L*	*50.00*		*103*	*84-123*			
Surrogate: Toluene-d8	*49.0*		*ug/L*	*50.00*		*98*	*76-129*			
Matrix Spike (P9H0347-MS1)	**Source: 9080260-01**			Prepared: 08/20/19 Analyzed: 08/21/19						
Benzene	0.0524	0.0055	mg/kg dry	0.05504	BRL	95	60-135			
Ethylbenzene	0.0536	0.0055	mg/kg dry	0.05504	BRL	97	44-144			
m,p-Xylenes	0.110	0.011	mg/kg dry	0.1101	BRL	100	36-148			
o-Xylene	0.0546	0.0055	mg/kg dry	0.05504	BRL	99	43-143			
Toluene	0.0528	0.0055	mg/kg dry	0.05504	BRL	96	57-135			
Xylenes, total	0.165	0.017	mg/kg dry	0.1651	BRL	100	36-148			
Surrogate: 4-Bromofluorobenzene	*45.8*		*ug/L*	*50.00*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*51.8*		*ug/L*	*50.00*		*104*	*84-123*			
Surrogate: Toluene-d8	*47.2*		*ug/L*	*50.00*		*94*	*76-129*			

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Project: NCDOT R-5726 West End

Project No: GN7039

Prism Work Order: 9080260
Time Submitted: 8/16/2019 9:15:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0347 - 5035										
Matrix Spike Dup (P9H0347-MSD1)		**Source: 9080260-01**		Prepared: 08/20/19 Analyzed: 08/21/19						
Benzene	0.0486	0.0054	mg/kg dry	0.05417	BRL	90	60-135	8	20	
Ethylbenzene	0.0499	0.0054	mg/kg dry	0.05417	BRL	92	44-144	7	19	
m,p-Xylenes	0.103	0.011	mg/kg dry	0.1083	BRL	95	36-148	7	20	
o-Xylene	0.0519	0.0054	mg/kg dry	0.05417	BRL	96	43-143	5	17	
Toluene	0.0495	0.0054	mg/kg dry	0.05417	BRL	91	57-135	7	22	
Xylenes, total	0.154	0.016	mg/kg dry	0.1625	BRL	95	36-148	6	20	
Surrogate: 4-Bromofluorobenzene	*48.3*		*ug/L*	*50.00*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*55.3*		*ug/L*	*50.00*		*111*	*84-123*			
Surrogate: Toluene-d8	*47.2*		*ug/L*	*50.00*		*94*	*76-129*			
Batch P9H0366 - 5035										
Blank (P9H0366-BLK1)				Prepared & Analyzed: 08/21/19						
Benzene	BRL	0.0050	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*51.2*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*60.3*		*ug/L*	*50.00*		*121*	*84-123*			
Surrogate: Toluene-d8	*47.1*		*ug/L*	*50.00*		*94*	*76-129*			
LCS (P9H0366-BS1)				Prepared & Analyzed: 08/21/19						
Benzene	0.0531	0.0050	mg/kg wet	0.05000		106	74-127			
Ethylbenzene	0.0562	0.0050	mg/kg wet	0.05000		112	74-128			
m,p-Xylenes	0.115	0.010	mg/kg wet	0.1000		115	75-124			
o-Xylene	0.0575	0.0050	mg/kg wet	0.05000		115	74-126			
Toluene	0.0550	0.0050	mg/kg wet	0.05000		110	71-129			
Xylenes, total	0.173	0.015	mg/kg wet	0.1500		115	74-126			
Surrogate: 4-Bromofluorobenzene	*48.7*		*ug/L*	*50.00*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*54.0*		*ug/L*	*50.00*		*108*	*84-123*			
Surrogate: Toluene-d8	*48.9*		*ug/L*	*50.00*		*98*	*76-129*			

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Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0366 - 5035										
LCS Dup (P9H0366-BSD1)				Prepared & Analyzed: 08/21/19						
Benzene	0.0494	0.0050	mg/kg wet	0.05000		99	74-127	7	20	
Ethylbenzene	0.0523	0.0050	mg/kg wet	0.05000		105	74-128	7	20	
m,p-Xylenes	0.107	0.010	mg/kg wet	0.1000		107	75-124	7	20	
o-Xylene	0.0540	0.0050	mg/kg wet	0.05000		108	74-126	6	20	
Toluene	0.0511	0.0050	mg/kg wet	0.05000		102	71-129	7	20	
Xylenes, total	0.161	0.015	mg/kg wet	0.1500		107	74-126	7	20	
Surrogate: 4-Bromofluorobenzene	*48.8*		*ug/L*	*50.00*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*53.0*		*ug/L*	*50.00*		*106*	*84-123*			
Surrogate: Toluene-d8	*48.5*		*ug/L*	*50.00*		*97*	*76-129*			
Batch P9H0389 - 5035										
Blank (P9H0389-BLK1)				Prepared & Analyzed: 08/22/19						
Benzene	BRL	0.0050	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*50.8*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*61.1*		*ug/L*	*50.00*		*122*	*84-123*			
Surrogate: Toluene-d8	*47.1*		*ug/L*	*50.00*		*94*	*76-129*			
LCS (P9H0389-BS1)				Prepared & Analyzed: 08/22/19						
Benzene	0.0502	0.0050	mg/kg wet	0.05000		100	74-127			
Ethylbenzene	0.0535	0.0050	mg/kg wet	0.05000		107	74-128			
m,p-Xylenes	0.111	0.010	mg/kg wet	0.1000		111	75-124			
o-Xylene	0.0542	0.0050	mg/kg wet	0.05000		108	74-126			
Toluene	0.0520	0.0050	mg/kg wet	0.05000		104	71-129			
Xylenes, total	0.165	0.015	mg/kg wet	0.1500		110	74-126			
Surrogate: 4-Bromofluorobenzene	*47.1*		*ug/L*	*50.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*55.3*		*ug/L*	*50.00*		*111*	*84-123*			
Surrogate: Toluene-d8	*44.9*		*ug/L*	*50.00*		*90*	*76-129*			

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Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0389 - 5035										
LCS Dup (P9H0389-BSD1)				Prepared & Analyzed: 08/22/19						
Benzene	0.0473	0.0050	mg/kg wet	0.05000		95	74-127	6	20	
Ethylbenzene	0.0501	0.0050	mg/kg wet	0.05000		100	74-128	7	20	
m,p-Xylenes	0.104	0.010	mg/kg wet	0.1000		104	75-124	6	20	
o-Xylene	0.0514	0.0050	mg/kg wet	0.05000		103	74-126	5	20	
Toluene	0.0489	0.0050	mg/kg wet	0.05000		98	71-129	6	20	
Xylenes, total	0.155	0.015	mg/kg wet	0.1500		104	74-126	6	20	
Surrogate: 4-Bromofluorobenzene	*47.0*		*ug/L*	*50.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*53.8*		*ug/L*	*50.00*		*108*	*84-123*			
Surrogate: Toluene-d8	*48.6*		*ug/L*	*50.00*		*97*	*76-129*			
Matrix Spike (P9H0389-MS1)		**Source: 9080260-19**		Prepared: 08/22/19 Analyzed: 08/23/19						
Benzene	0.0476	0.0057	mg/kg dry	0.05685	BRL	84	60-135			
Ethylbenzene	0.0509	0.0057	mg/kg dry	0.05685	BRL	90	44-144			
m,p-Xylenes	0.107	0.011	mg/kg dry	0.1137	BRL	94	36-148			
o-Xylene	0.0492	0.0057	mg/kg dry	0.05685	BRL	87	43-143			
Toluene	0.0487	0.0057	mg/kg dry	0.05685	BRL	86	57-135			
Xylenes, total	0.156	0.017	mg/kg dry	0.1705	BRL	91	36-148			
Surrogate: 4-Bromofluorobenzene	*46.8*		*ug/L*	*50.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*60.8*		*ug/L*	*50.00*		*122*	*84-123*			
Surrogate: Toluene-d8	*46.1*		*ug/L*	*50.00*		*92*	*76-129*			
Matrix Spike Dup (P9H0389-MSD1)		**Source: 9080260-19**		Prepared: 08/22/19 Analyzed: 08/23/19						
Benzene	0.0501	0.0057	mg/kg dry	0.05696	BRL	88	60-135	5	20	
Ethylbenzene	0.0491	0.0057	mg/kg dry	0.05696	BRL	86	44-144	4	19	
m,p-Xylenes	0.104	0.011	mg/kg dry	0.1139	BRL	91	36-148	3	20	
o-Xylene	0.0490	0.0057	mg/kg dry	0.05696	BRL	86	43-143	0.5	17	
Toluene	0.0511	0.0057	mg/kg dry	0.05696	BRL	90	57-135	5	22	
Xylenes, total	0.153	0.017	mg/kg dry	0.1709	BRL	89	36-148	2	20	
Surrogate: 4-Bromofluorobenzene	*45.0*		*ug/L*	*50.00*		*90*	*70-130*			
Surrogate: Dibromofluoromethane	*61.7*		*ug/L*	*50.00*		*123*	*84-123*			
Surrogate: Toluene-d8	*46.6*		*ug/L*	*50.00*		*93*	*76-129*			

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Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0434 - 5035										
Blank (P9H0434-BLK1)				Prepared & Analyzed: 08/26/19						
Benzene	BRL	0.0050	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	*51.0*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*46.7*		*ug/L*	*50.00*		*93*	*84-123*			
Surrogate: Toluene-d8	*49.6*		*ug/L*	*50.00*		*99*	*76-129*			
LCS (P9H0434-BS1)				Prepared & Analyzed: 08/26/19						
Benzene	0.0513	0.0050	mg/kg wet	0.05000		103	74-127			
Ethylbenzene	0.0516	0.0050	mg/kg wet	0.05000		103	74-128			
m,p-Xylenes	0.100	0.010	mg/kg wet	0.1000		100	75-124			
o-Xylene	0.0501	0.0050	mg/kg wet	0.05000		100	74-126			
Toluene	0.0516	0.0050	mg/kg wet	0.05000		103	71-129			
Xylenes, total	0.150	0.015	mg/kg wet	0.1500		100	74-126			
Surrogate: 4-Bromofluorobenzene	*52.0*		*ug/L*	*50.00*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*44.7*		*ug/L*	*50.00*		*89*	*84-123*			
Surrogate: Toluene-d8	*51.0*		*ug/L*	*50.00*		*102*	*76-129*			
LCS Dup (P9H0434-BSD1)				Prepared & Analyzed: 08/26/19						
Benzene	0.0480	0.0050	mg/kg wet	0.05000		96	74-127	7	20	
Ethylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	74-128	7	20	
m,p-Xylenes	0.0930	0.010	mg/kg wet	0.1000		93	75-124	7	20	
o-Xylene	0.0468	0.0050	mg/kg wet	0.05000		94	74-126	7	20	
Toluene	0.0481	0.0050	mg/kg wet	0.05000		96	71-129	7	20	
Xylenes, total	0.140	0.015	mg/kg wet	0.1500		93	74-126	7	20	
Surrogate: 4-Bromofluorobenzene	*52.6*		*ug/L*	*50.00*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*43.7*		*ug/L*	*50.00*		*87*	*84-123*			
Surrogate: Toluene-d8	*50.0*		*ug/L*	*50.00*		*100*	*76-129*			

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General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9H0353 - Solids, Dry Weight										
Duplicate (P9H0353-DUP1)		**Source: 9080260-04**		Prepared: 08/21/19 Analyzed: 08/22/19						
% Solids	91.4	0.100	% by Weight		97.8			7	20	
Duplicate (P9H0353-DUP2)		**Source: 9080260-14**		Prepared: 08/21/19 Analyzed: 08/22/19						
% Solids	96.6	0.100	% by Weight		90.5			7	20	
Batch P9H0369 - Solids, Dry Weight										
Duplicate (P9H0369-DUP1)		**Source: 9080260-20**		Prepared: 08/22/19 Analyzed: 08/23/19						
% Solids	93.3	0.100	% by Weight		93.3			0.02	20	
Duplicate (P9H0369-DUP2)		**Source: 9080260-23**		Prepared: 08/22/19 Analyzed: 08/23/19						
% Solids	97.6	0.100	% by Weight		97.8			0.1	20	
Batch P9H0406 - Solids, Dry Weight										
Duplicate (P9H0406-DUP1)		**Source: 9080260-39**		Prepared: 08/23/19 Analyzed: 08/26/19						
% Solids	88.6	0.100	% by Weight		89.4			0.9	20	

Sample Extraction Data

Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
9080260-01	P9H0353	30 g	30 g	08/21/19 10:40
9080260-02	P9H0353	30 g	30 g	08/21/19 10:40
9080260-03	P9H0353	30 g	30 g	08/21/19 10:40
9080260-04	P9H0353	30 g	30 g	08/21/19 10:40
9080260-05	P9H0353	30 g	30 g	08/21/19 10:40
9080260-06	P9H0353	30 g	30 g	08/21/19 10:40
9080260-07	P9H0353	30 g	30 g	08/21/19 10:40
9080260-08	P9H0353	30 g	30 g	08/21/19 10:40
9080260-09	P9H0353	30 g	30 g	08/21/19 10:40
9080260-10	P9H0353	30 g	30 g	08/21/19 10:40
9080260-11	P9H0353	30 g	30 g	08/21/19 10:40
9080260-12	P9H0353	30 g	30 g	08/21/19 10:40
9080260-13	P9H0353	30 g	30 g	08/21/19 10:40
9080260-14	P9H0353	30 g	30 g	08/21/19 10:40
9080260-15	P9H0353	30 g	30 g	08/21/19 10:40
9080260-16	P9H0353	30 g	30 g	08/21/19 10:40
9080260-17	P9H0353	30 g	30 g	08/21/19 10:40
9080260-18	P9H0369	30 g	30 g	08/22/19 11:13
9080260-19	P9H0369	30 g	30 g	08/22/19 11:13
9080260-20	P9H0369	30 g	30 g	08/22/19 11:13
9080260-21	P9H0369	30 g	30 g	08/22/19 11:13
9080260-22	P9H0369	30 g	30 g	08/22/19 11:13
9080260-23	P9H0369	30 g	30 g	08/22/19 11:13
9080260-24	P9H0369	30 g	30 g	08/22/19 11:13
9080260-25	P9H0369	30 g	30 g	08/22/19 11:13
9080260-26	P9H0369	30 g	30 g	08/22/19 11:13
9080260-27	P9H0369	30 g	30 g	08/22/19 11:13
9080260-28	P9H0369	30 g	30 g	08/22/19 11:13
9080260-29	P9H0369	30 g	30 g	08/22/19 11:13
9080260-30	P9H0369	30 g	30 g	08/22/19 11:13
9080260-31	P9H0369	30 g	30 g	08/22/19 11:13
9080260-32	P9H0369	30 g	30 g	08/22/19 11:13
9080260-33	P9H0369	30 g	30 g	08/22/19 11:13
9080260-34	P9H0369	30 g	30 g	08/22/19 11:13
9080260-35	P9H0369	30 g	30 g	08/22/19 11:13
9080260-36	P9H0369	30 g	30 g	08/22/19 11:13
9080260-37	P9H0369	30 g	30 g	08/22/19 11:13
9080260-38	P9H0406	30 g	30 g	08/23/19 12:00
9080260-39	P9H0406	30 g	30 g	08/23/19 12:00

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
9080260-01	P9H0347	3.89 g	5 mL	08/20/19 10:00
9080260-02	P9H0347	4.18 g	5 mL	08/20/19 10:00
9080260-03	P9H0347	5.17 g	5 mL	08/20/19 10:00
9080260-04	P9H0347	4.83 g	5 mL	08/20/19 10:00
9080260-05	P9H0389	3.77 g	5 mL	08/22/19 10:00
9080260-06	P9H0347	5.45 g	5 mL	08/20/19 10:00
9080260-07	P9H0347	5.48 g	5 mL	08/20/19 10:00
9080260-08	P9H0347	5.5 g	5 mL	08/20/19 10:00
9080260-09	P9H0347	4.69 g	5 mL	08/20/19 10:00
9080260-10	P9H0347	4.68 g	5 mL	08/20/19 10:00
9080260-11	P9H0347	4.72 g	5 mL	08/20/19 10:00
9080260-12	P9H0347	4.64 g	5 mL	08/20/19 10:00
9080260-13	P9H0310	5.74 g	5 mL	08/19/19 10:00
9080260-14	P9H0366	5.34 g	5 mL	08/21/19 10:00

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
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Sample Extraction Data

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
9080260-15	P9H0347	3.3 g	5 mL	08/20/19 10:00
9080260-16	P9H0347	6.27 g	5 mL	08/20/19 10:00
9080260-17	P9H0347	5.54 g	5 mL	08/20/19 10:00
9080260-18	P9H0347	4.89 g	5 mL	08/20/19 10:00
9080260-19	P9H0389	6.23 g	5 mL	08/22/19 10:00
9080260-20	P9H0389	5.21 g	5 mL	08/22/19 10:00
9080260-21	P9H0434	4.84 g	5 mL	08/26/19 11:00
9080260-22	P9H0389	5.69 g	5 mL	08/22/19 10:00
9080260-23	P9H0310	5.96 g	5 mL	08/19/19 10:00
9080260-24	P9H0310	4.34 g	5 mL	08/19/19 10:00
9080260-25	P9H0389	4.74 g	5 mL	08/22/19 10:00
9080260-26	P9H0389	4.6 g	5 mL	08/22/19 10:00
9080260-27	P9H0389	3.91 g	5 mL	08/22/19 10:00
9080260-28	P9H0389	4.18 g	5 mL	08/22/19 10:00
9080260-29	P9H0389	4.28 g	5 mL	08/22/19 10:00
9080260-30	P9H0389	4.06 g	5 mL	08/22/19 10:00
9080260-31	P9H0389	4.36 g	5 mL	08/22/19 10:00
9080260-32	P9H0389	5.01 g	5 mL	08/22/19 10:00
9080260-33	P9H0389	5.13 g	5 mL	08/22/19 10:00
9080260-34	P9H0389	3.66 g	5 mL	08/22/19 10:00
9080260-35	P9H0389	3.79 g	5 mL	08/22/19 10:00
9080260-36	P9H0389	6.93 g	5 mL	08/22/19 10:00
9080260-37	P9H0434	4.94 g	5 mL	08/26/19 11:00
9080260-38	P9H0389	5.45 g	5 mL	08/22/19 10:00
9080260-39	P9H0434	5.81 g	5 mL	08/26/19 11:00

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC. — Full-Service Analytical & Environmental Solutions

449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 1 OF 4 QUOTE # TO ENSURE PROPER BILLING: GN7039

Project Name: NCDOT, West End
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Geosyntec
Address:

Client Company Name: Geosyntec
Report To/Contact Name: Michael Wang
Reporting Address: 2501 Blue Ridge Rd. Ste 430, Raleigh, NC, 27607
Phone: 919-551-5334 Fax (Yes) (No): No
Email Address: mwang@geosyntec.com
EDD Type: PDF X Excel X Other
Site Location Name: NCDOT West End
Site Location Physical Address: West End, NC

Purchase Order No./Billing Reference GN7039
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 14:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival?	✓		
Received ON WET ICE?	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			4
VOLATILES rec'd W/OUT HEADSPACE?			4
PROPER CONTAINERS used?	✓		

TEMP: Therm ID: IR-14 Observed: 3.2 °C / Corr: 3.3 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC___ DoD___ FL___ NC X
SC___ OTHER___ N/A___
Water Chlorinated: YES___ NO X
Sample Iced Upon Collection: YES X NO___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED CB260	REMARKS	PRISM LAB ID NO.
SB13-01-7.5-8.0	8/12/19	1030	Soil	VOA	4		multiple	✓	BTEX ONLY	01
SB13-02-7-7.5	8/12/19	1100	Soil					✓		02
SB13-03-6.5-7.0	8/12/19	1130	Soil					✓		03
SB43-01-4.5-5	8/13/19	1340						✓		04
SB43-02-6.5-7	8/13/19	1400						✓		05
SB43-03-7-7.5	8/13/19	1430						✓		06
SB43-04-7.5-8	8/13/19	1445						✓		07
SB6867-01-5-5.5	8/13/19	0840						✓		08
SB6867-02-4.5-5	8/13/19	0910	↓	↓	↓		↓	✓	↓	09
SB6867-03-6.5-7	8/13/19	1020	Soil	VOA	4		multiple	✓	BTEX ONLY	10

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Sampler's Signature Michael Wang Sampled By (Print Name) Michael Wang Affiliation

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.

		Date	Military/Hours
Relinquished By: (Signature) Michael Wang	Received By: (Signature)	~~8/15/19~~	~~1600~~
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	8-16-19	0915

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

NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

COC Group No. 9080260

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ 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)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC. | Full-Service Analytical & Environmental Solutions

449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 2 OF 4 QUOTE # TO ENSURE PROPER BILLING: GN 7039

Project Name: NCDOT West End

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

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

Invoice To: Geosyntec

Address:

Client Company Name: Geosyntec

Report To/Contact Name: Michael Wang

Reporting Address: 2501 Blue Ridge Rd. Ste 430, Raleigh, NC. 27607

Phone: 919-551-5334 Fax (Yes) (No): No

Email Address: mwang@geosyntec.com

EDD Type: PDF X Excel X Other

Site Location Name: NCDOT West End

Site Location Physical Address: West End NC

Purchase Order No./Billing Reference GN7039

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

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

Samples received after 14:00 will be processed next business day.

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

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

LAB USE ONLY

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

TEMP: Therm ID: [illegible] Observed: 3.2 °C / Corr: 3.3 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC___ DoD___ FL___ NC X SC___ OTHER___ N/A___

Water Chlorinated: YES___ NO X

Sample Iced Upon Collection: YES X NO___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED 8260	REMARKS	PRISM LAB ID NO.
SB66867-04.5-6.0	8/13/19	0945	Soil	VOA	4		multiple	X	BTEX ONLY	11
SB66867-05-7.5	8/13/19	1110	Soil					X		12
SB66867-06-7.5-8	8/13/19	1220	Soil					X		13
SB69-01-6.0-6.5	8/12/19	1300						X		14
SB69-02-4.0-4.5	8/12/19	1330						X		15
SB69-03-5-5.5	8/12/19	1400						X		16
SB69-04-5-5.5	8/12/19	1445						X		17
SB69-05-9.5-10	8/12/19	1525						X		18
SB69-06-9-9.5	8/12/19	1615						X		19
SB69-07-5.0-5.5	8/12/19	1645	Soil	VOA	4		multiple	X	BTEX ONLY	20

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Sampler's Signature [signature] Sampled By (Print Name) Michael Wang Affiliation

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		Date	Military/Hours
Relinquished By: (Signature) [signature]	Received By: (Signature)	~~8/16/19~~	~~1500~~
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By: [signature]	Date 8-16-19	0915

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other

COC Group No. 90 8 0260

Additional Comments:

PRISM USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ 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)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC. | Full-Service Analytical & Environmental Solutions

449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 3 OF 4 QUOTE # TO ENSURE PROPER BILLING: GN7039

Project Name: NCDOT West End
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Geosyntec
Address:

Client Company Name: Geosyntec
Report To/Contact Name: Michael Wang
Reporting Address: 2501 Blue Ridge Rd Ste 430, Raleigh, NC, 27607
Phone: 919-551-5334 Fax (Yes) (No): NO
Email Address: MiWang@geosyntec.com
EDD Type: PDF X Excel X Other
Site Location Name: NCDOT West End
Site Location Physical Address: West End, NC

Purchase Order No./Billing Reference GN7039
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 14:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

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

TEMP: Therm ID: IR1-19 Observed: 3.2 °C / Corr: 3.3 °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC___ DoD___ FL___ NC X
SC___ OTHER___ N/A___
Water Chlorinated: YES___ NO X
Sample Iced Upon Collection: YES X NO___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED 8260	REMARKS	PRISM LAB ID NO.
SB69-08-6-6.5	8/13/19	1300	Soil	VOA	4		Multiple	X	BTEX ONLY	21
SB68-01-7-7.5	8/13/19	1550						X		22
SB78-02-5.5-6	8/14/19	0825						X		23
SB78-03-6-6.5	8/14/19	0900						X		24
SB78-04-6.5-7	8/14/19	0930						X		25
SB89-01-5-5.5	8/15/19	0900						X		26
SB89-02-5.5-6	8/15/19	0940						X		27
SB89-03-6.5-7	8/15/19	1030						X		28
SB89-04-7-7.5	8/15/19	1130						X		29
SB102-01-2.5-3	8/14/19	1050	Soil	VOA	4		Multiple	X	BTEX ONLY	30

Sampler's Signature: [signature] Sampled By (Print Name): Michael Wang Affiliation

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		Date	Military/Hours
Relinquished By: (Signature) [signature]	Received By: (Signature)	~~8/15/19~~	~~1600~~
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By: [signature]	Date 8-16-19	0915

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other

COC Group No. 9080260

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ 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)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

CHAIN OF CUSTODY RECORD

PRISM LABORATORIES, INC.
Full-Service Analytical & Environmental Solutions
449 Springbrook Road • Charlotte, NC 28217
Phone 704/529-6364 • Fax: 704/525-0409

PAGE 4 OF 4 QUOTE # TO ENSURE PROPER BILLING: GN7039

Project Name: ~~GN7039~~ NCDOT West End

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

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

Invoice To: Geosyntec

Address:

Client Company Name: Geosyntec

Report To/Contact Name: Michael Wang

Reporting Address: 2501 Blue Ridge Rd Ste 430, Raleigh, NC 27607

Phone: 919-551-533 Fax (Yes) (No): NO

Email Address: mwang@Geosyntec.com

EDD Type: PDF X Excel X Other

Site Location Name: NCDOT West End

Site Location Physical Address: West End, NC

Purchase Order No./Billing Reference

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

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

Samples received after 14:00 will be processed next business day.

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

LAB USE ONLY

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

TEMP: Therm ID: ~~DC-14~~ Observed: 3.2 °C / Corr: 3.3 °C

Page 60 of 60

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC___ DoD___ FL___ NC X

SC___ OTHER___ N/A___

Water Chlorinated: YES___ NO X

Sample Iced Upon Collection: YES X NO___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	SAMPLE CONTAINER NO.	SAMPLE CONTAINER SIZE	PRESERVATIVES	ANALYSIS REQUESTED DoD	REMARKS	PRISM LAB ID NO.
SB102-02-5.5-6	8/14/19	1135	Soil	VOA	4		Multiple	X	BTEX ONLY	31
SB102-03-7-7.5	8/14/19	1300						X		32
SB102-04-7.5-8	8/14/19	1330						X		33
SB102-05-45-5	8/14/19	1400						X		34
SB102-06-0.5-1	8/14/19	1450						X		35
SB102-07-7.5-8	8/14/19	1535						X		36
SB102-08-8-8.5	8/14/19	1605						X		37
SB102-09-8.5-9	8/14/19	1645						X		38
SB102-10-9-9.5	8/14/19	1720	Soil	VOA	4		Multiple	X	BTEX ONLY	39

Sampler's Signature: Michael Wang Sampled By (Print Name): Michael Wang Affiliation

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		Date	Military/Hours
Relinquished By: (Signature) Michael Wang	Received By: (Signature)	~~8/15/19~~	~~1600~~
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	Date 8-16-19	0915

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other

COC Group No. 9080260

Additional Comments:

PRISM USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ 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)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

Geological Resources, Inc.

February 23, 2023

Mr. Nathan Beauchamp
NCDEQ-UST Section
Fayetteville Regional Office
Systel Building
225 Green Street, Suite 714
Fayetteville, NC 28301-5043

Re: UST Closure Report
February 2023
Fast Shoppe #29
4331 NC-211
West End, Moore County
North Carolina
Facility ID Number: 00-0-0000020850
Incident Number: 29042
GRI Project Number: 5264

Dear Mr. Beauchamp,

Please find enclosed the referenced report for the abovementioned site.
If you have any questions, please contact William Regenthal at 704-845-4010.

Sincerely,
Geological Resources, Inc.

Leslie Maxtone-Graham
Administrative Assistant

Enclosure

Cc: Mr. Chris Neal; Li'l Thrift Food Marts, Inc., file

3502 Hayes Road • Monroe, North Carolina 28110
113 West Firetower Road, Suite G • Winterville, North Carolina 28590
Phone (704) 845-4010 • (888) 870-4133 • Fax (704) 845-4012

Geological Resources, Inc.

UST Closure Report
February 2023
Fast Shoppe #29
4331 NC-211
West End, Moore County
North Carolina
Facility ID Number: 00-0-0000020850
Incident Number: 29042
GRI Project Number: 5264

Prepared for:

Mr. Chris Neal
Li'l Thrift Food Marts, Inc.
1007 Arsenal Avenue
Fayetteville, NC 28305

February 23, 2023

William Regenthal, P.G.
Project Manager

Ethan Rogerson, GIT
Project Manager

3502 Hayes Road • Monroe, North Carolina 28110
113 West Firetower Road, Suite G • Winterville, North Carolina 28590
Phone (704) 845-4010 • (888) 870-4133 • Fax (704) 845-4012
Engineering Certification: C-2727 • Geology Certification: C-127

EXECUTIVE SUMMARY

Fast Shoppe #29 is a vacant petroleum retail facility and convenience store. The site is located at 4331 NC-211 in West End, Moore County, North Carolina. The adjoining properties are commercial. Municipal water is available to the site. The UST basin located was located on northwest side of the store and contained one 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST. The USTS were removed from the site on February 15 and 16, 2023.

During tank removal activities, petroleum contamination was noted in the UST overburden soil. Ground water not encountered in the UST basin. UST closure soil samples were collected beneath the USTs, product piping, dispensers and from each truck load of excavated soil and analyzed on-site analysis by UVF technology for TPH-GRO. Based on the field observations and UVF field screening results, over-excavation activities were not conducted. A total of 123.48 tons of petroleum contaminated soil was excavated and transported to a permitted disposal facility.

Based on these results, a new release has not occurred at the site and further assessment is unwarranted.

SITE INFORMATION

1. **Site Identification**
   - Fast Shoppe #29 (Facility ID 00-0-0000020850)
   - Incident Number 29042 – Risk Ranking Low
   - Location of Source Area: 4331 NC-211
     West End, NC 27376
     Moore County
     35.263014°N, 79.584953°W (Topographical Map)

2. **Information about Contacts Associated with the Leaking UST System**

UST Owner/Operator
Li'l Thrift Food Mart, Inc.
1007 Arsenal Avenue
Fayetteville, NC 28305
cvneal@shortstopfoodmarts.com
910-433-4490

Property Occupant
Vacant Convenience Store
4331 NC-211
Seven Springs, NC 27376
cvneal@shortstopfoodmarts.com
910-433-4490

UVF Analytical
Geological Resources, Inc.
3502 Hayes Road
Monroe, NC 28110
State Certification No. n/a
704-845-4010

Property Owner
Neal, Brian K & Karen P
1007 Arsenal Avenue
Fayetteville, NC 28305
cvneal@shortstopfoodmarts.com
910-433-4490

Consultant/ Closure Contractor
Geological Resources, Inc.
3502 Hayes Road
Monroe, NC 28110
egr@geologicalresourcesinc.com
704-845-4010

3. **Information about Release**
   - Release was discovered on January 6, 2003.
   - An unknown amount of product was released from the leaking UST System.
   - One 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST were removed from the site in February 2023.

Certification:
I, William Regenthal, a Licensed Geologist for Geological Resources, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

NORTH CAROLINA LICENSED SEAL 2317 GEOLOGIST WILLIAM L. REGENTHAL

Geological Resources, Inc. is licensed to practice geology and engineering in North Carolina. The certification numbers of the corporation are C-127 and C-2727, respectively.

ACRONYMS

ACM: Asbestos Containing Materials

AFVR: Aggressive Fluid-Vapor Recovery

ARR: Acknowledgement of Report Receipt

AS: Air Sparging

AST: Aboveground Storage Tank

ASTM: American Society for Testing and Materials

BGS: Below Ground Surface

CAP: Corrective Action Plan

CFR: Code of Federal Regulations

CSA: Comprehensive Site Assessment

DPE: Dual Phase Extraction

DRO: Total Petroleum Hydrocarbons Diesel Range Organics

DWM: Division of Waste Management

DWR: Department of Water Resources

EPA: Environmental Protection Agency

EPH: Extractible Petroleum Hydrocarbons

ESA: Environmental Site Assessment

GCL: Gross Contamination Level

GRI: Geological Resources, Inc.

GRO: Total Petroleum Hydrocarbons Gasoline Range Organics

LSA: Limited Site Assessment

MAC: Maximum Allowable Concentration as specified in T15A NCAC 2L.0202

MADEP: Massachusetts Department of Environmental Protection

MCC: Maximum Contaminant Concentrations

MMPE: Mobile Multi-Phase Extraction

NAPL: Non-Aqueous Phase Liquid, “Free Product”

NCDEQ: North Carolina Department of Environmental Quality

NCDOT: North Carolina Department of Transportation

NFA: Notice of No Further Action

NORR: Notice of Regulatory Requirements

NOV: Notice of Violation

NPDES: National Pollutant Discharge Elimination System

NRP: Notice of Residual Petroleum

O&M: Operation and Maintenance

PAHs: Polynuclear Aromatic Hydrocarbons

PCA: Pre-Construction Assessment

RAL: Regulatory Action Level

SCLs: Soil Cleanup Level

SPCC: Spill Prevention Control and Countermeasures

SVE: Soil Vapor Extraction

SVOCs: Semi-Volatile Organic Compounds

SWPPP: Stormwater Pollution Prevention Plan

TCLP: Toxicity Characteristic Leaching Procedure (EPA Method SW-846 1311)

TOC: Top of Casing

TPH: Total Petroleum Hydrocarbons

USGS: United States Geological Survey

UST: Underground Storage Tank

UVF: Ultraviolet Fluorescence

VOCs: Volatile Organic Compounds

VPH: Volatile Petroleum Hydrocarbons

TABLE OF CONTENTS

A. SITE HISTORY AND CHARACTERIZATION

1. UST Owner and Operator Information:

In accordance with the UST Closure Report guidelines, the UST owner and operator information has been summarized in **Table 1.**

2. UST System Information:

In accordance with the UST Closure Report guidelines, the UST system information has been summarized in **Table 2**. A copy of the Registered Tank Report is shown below:

NCDEQ Registered Tank Report

Facility Id	00-0-0000020850	Tank Owner	LI'L THRIFT FOOD MARTS, INC.
Facility Name	FAST SHOPPE 29	Address	1007 ARSENAL AVENUE
Address	PO BOX 129/SEVEN LAKES VILLAGE	City	FAYETTEVILLE
City	WEST END	State	NC
State	NC	Zip	28305-5329
County	Moore		
Zip	27376-0129		
Latitude	35.263326		
Longitude	-79.584648		

Tank Information

Tank Id	Product Name	Capacity	Installation Date	Perm Close Date	Tank Construction	Piping Construction	OverFill Protection	Spill Protection	Tank Status
1	Gasoline, Gas Mix	10000	4/11/1978		Single Wall Steel	Single Wall FRP	Auto Shutoff Device	Catchment Basin	Current
2	Gasoline, Gas Mix	8000	4/11/1978		Single Wall Steel	Single Wall FRP	Auto Shutoff Device	Catchment Basin	Current
3	Gasoline, Gas Mix	6000	9/22/1987		Single Wall Steel	Single Wall FRP	Auto Shutoff Device	Catchment Basin	Current

3. Non-UST Information:

No ASTs are located at the site.

4. Comprehensive Description of the Release:

On January 6, 2003, a release was discovered at the site from a leaking UST system and was issued incident number 29042. Incident number 29042 was issued an NFA on January 25, 2012, after an NRP was filed on the deed of the subject property.

5. Description of the Site Characteristics:

The Fast Shoppe #29 site is a vacant petroleum retail facility located at 4331 NC-211 in West End, Moore County, North Carolina (**Figure 1**)**.** The site is bordered to the north by Seven Lakes Drive and to the south by NC-211. A site map has been included as **Figure 2**.

6. Summary of Initial Abatement Actions, Assessment Activities, and Corrective Actions:

Prior to closure, the appropriate officials were notified by GRI (i.e. Fire Marshal and NCDEQ). One 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST, associated

dispensers and product piping were removed from the site between February 15 and 16, 2023. Petroleum contamination was noted in the overburden soil. Over-excavation activities were not conducted. Ground water was not encountered in the UST basin.

B. SITE CHECK

A site check was not part of the initial abatement activities.

C. UST CLOSURE

1. Preparation for Closure:

Li'l Thrift Food Marts, LLC contracted GRI to conduct UST closure activities of one 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST as well as associated dispensers and product piping from the site. Prior to closure activities, GRI personnel notified the Moore County Fire Department. A copy of the Moore County Fire Permit is included as **Appendix A**. A Notice of Intent: UST Permanent Closure or Change-in-Service (UST-3 Form) Form was submitted to the NCDEQ Fayetteville Regional office on January 6, 2023, and is included as **Appendix B**. A copy of the Site Investigation Report for Closure or Change-in-Service of Registered UST (UST-2A Form) is included as **Appendix C**. A copy of the site specific health and safety plan is included as **Appendix D**.

2. Closure Procedure:

Between February 15 and 16, 2023, one 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST, as well as associated dispensers and product piping were removed from the site. The USTs were located in one UST basin, northwest of the store and covered with concrete and soil. The 10,000-gallon UST measured 8 feet in diameter by 26 feet and 8 inches in length, the 8,000-gallon USTs measured 8 feet in diameter by 21 feet and 4 inches in length and 8 feet in diameter by 16 feet in length. All of the USTs were visually inspected and appeared to be in fair condition with minor corrosion and pitting. All of the USTs were constructed of steel. The USTs were transported off site for proper disposal. A disposal manifest for the USTs removed in February 2023 is included as **Appendix E**. Photos of one of the USTs and are shown below:

3. Residual Material:

A total of 200 gallons of residual liquids was removed from the USTs during UST closure activities. A copy of the liquid disposal manifest is included as **Appendix F**.

5. Soil Excavation Activities:

Based on the observations and direction of GRI staff, 123.48 tons of contaminated soil were removed from the site during the February 2023 UST closure activities. No over-excavation of the sidewalls of the UST basin was conducted following the removal of the USTs. The excavation boundaries are shown on **Figure 2**. Soil disposal manifests are included as **Appendix G**.

6. Site Investigation:

Soil samples were collected from the base of the UST basin beneath the USTs (UST-1-1-13', UST-1-2-13', UST-1-3-13', UST-2-1-13', UST-2-2-13', UST-2-3-13', UST-3-1-13' and UST-3-2-13'), from beneath the dispenser islands (DI-1-3' and DI-2-3') from beneath the product piping (PP-1-3' through PP-4-3') and truck load samples (TS-1 through TS-6) were analyzed on-site for TPH-GRO using UVF technology. All soil samples were collected using either a hand auger or directly from the bucket of the excavator. Soil sample locations are shown on **Figure 3**. A copy of the UVF screening results is included as **Appendix H**.

D. FREE PRODUCT INVESTIGATION AND RECOVERY REPORT

Free product was not encountered during the February 2023 UST closure activities.

E. GROUND WATER INVESTIGATION

Ground water was not encountered during the February 2023 UST closure activities.

F. INITIAL RESPONSE AND ABATEMENT ACTION

1. Initial Response Actions:

One 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST, associated dispensers and product piping were removed from the site between February 15 and 16, 2023. Based on the field observations, the UST overburden was removed and disposed of and no over excavation activities were not conducted.

- **Source Control Actions**: One 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST, associated dispensers and product piping were removed from the site between February 15 and 16, 2023.
- **Contaminant Migration Control Measures**: The release was to the sub-surface; therefore no contaminant migration control measures were necessary.
- **Measures Taken to Mitigate Fire/Safety Hazards**: Prior to closure, the appropriate officials were notified (i.e. Fire Marshal). Free product was not encountered during closure activities.
- **Measures Taken to Identify and Mitigate Pollution Hazards**: The release was to the sub-surface; therefore, no migration control measures were necessary.

2. Initial Abatement Actions:

- **Contaminated Soil Storage/Treatment and/or Disposal**: On February 15 and 16, 2023, GRI supervised the soil excavation activities. Contaminated soil was loaded into dump trucks and transported to a permitted facility for disposal.

G. EXCAVATION OF CONTAMINATED SOIL

1. **Extent of Soil Contamination:**
   Based on the field observations and UVF results, no over-excavation activities were conducted following the UST system removal. The excavated overburden soil from the former UST basin was removed. A total of 123.48 tons of contaminated soil was transported offsite to a permitted disposal facility during the February 2023 UST closure activities.
2. **Excavation Process:**
   The excavation activities were conducted using a track-mounted excavator. GRI supervised the excavation activities and directed the equipment operators as to what to excavate.
3. **Sampling Description:**
   All soil samples were collected directly from the bucket of the excavator or using a hand auger by GRI personnel. Samples were collected with clean, disposable nitrile gloves, immediately placed in laboratory-supplied glassware and placed on ice.

H. SOIL AND GROUNDWATER SAMPLE RESULTS

- **Soil:**

Concentrations of GRO that exceeded the RAL were reported in soil samples TS-1 through TS-6. A summary of soil sample analytical results is presented as **Table 3**. A Soil Quality Map has been included as **Figure 3**. A copy of the UVF report from the soil samples collected during the February 2023 UST closure is included as **Appendix H**.

- **Ground Water:**
  Ground water was not encountered during the February 2023 UST closure activities.

I. SUMMARY AND CONCLUSIONS

- One 10,000-gallon gasoline UST, one 8,000-gallon gasoline UST and one 6,000-gallon gasoline UST, associated dispensers and product piping were removed from the site between February 15 and 16, 2023.
- A total of 123.48 tons of petroleum contaminated soil was excavated and transported to a permitted disposal facility.
- No free product was noted in the UST basin during closure activities.
- Ground water was not encountered during the February 2023 UST closure.
- Concentrations of GRO that exceeded the RAL were reported in the truck load soil samples (TS-1 through TS-6).
- Based on these results, a new release has not occurred at the site and further assessment is unwarranted.

J. LIMITATIONS

This report has been prepared for the exclusive use of Li'l Thrift Food Marts, LLC for specific application to the referenced site in Moore County, North Carolina. The assessment was conducted based on the scope of work and level of effort desired by the NCDEQ and with resources adequate only for that scope

of work. Our findings have been developed in accordance with generally accepted standards of environmental practices in the State of North Carolina, available information, and our professional judgment. No other warranty is expressed or implied.

The data that are presented in this report are indicative of conditions that existed at the precise locations sampled and at the time the samples were collected. In addition, the data obtained from samples would be interpreted as being meaningful with respect to parameters indicated in the laboratory report. No additional information can logically be inferred from these data.

FIGURES

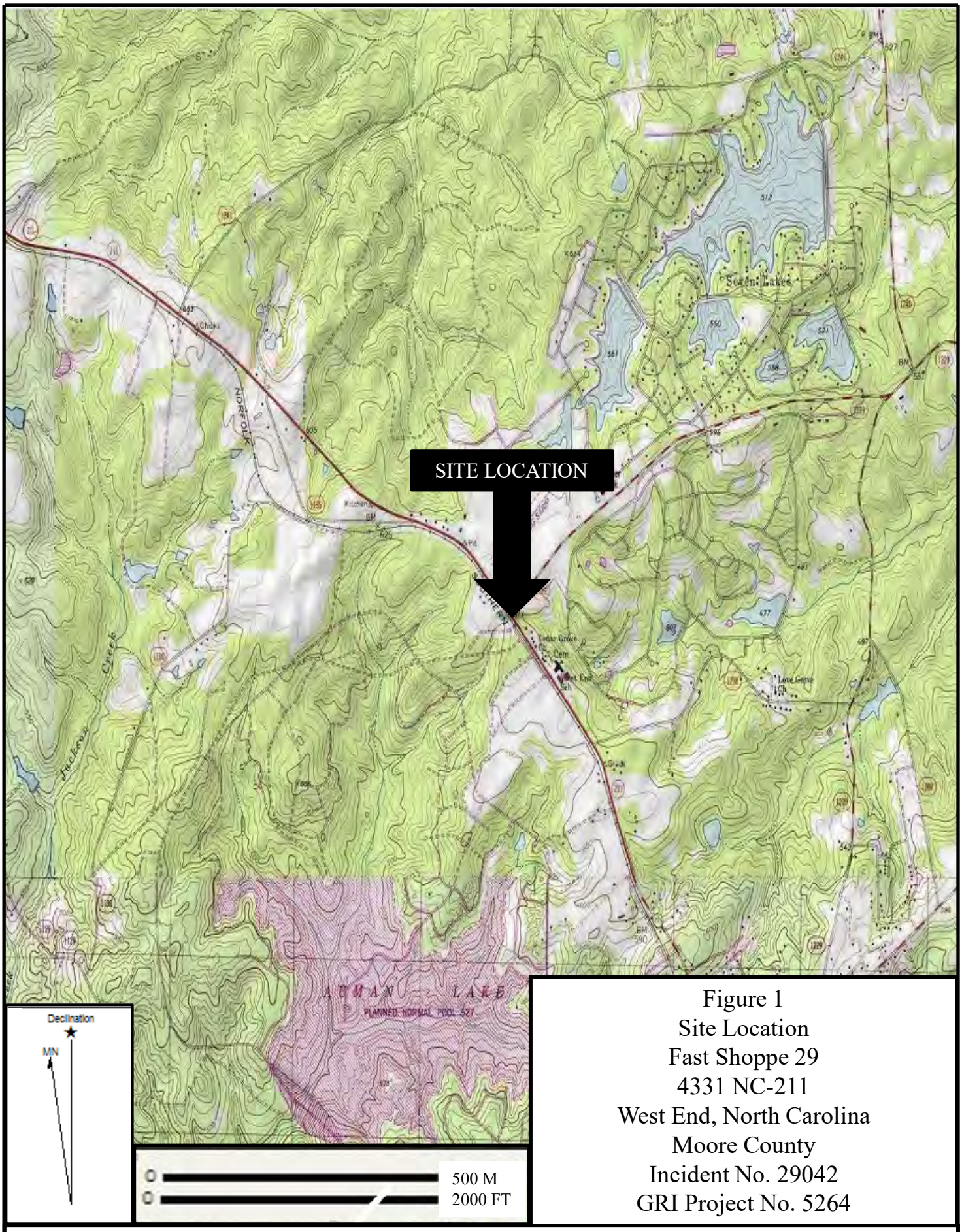


Figure 1
Site Location
Fast Shoppe 29
4331 NC-211
West End, North Carolina
Moore County
Incident No. 29042
GRI Project No. 5264

Date: 02/19/2023

Location: 35.263014° N -79.584953° W

LEGEND

- FUEL DISPENSER
- UNDERGROUND STORAGE TANK
- PRODUCT LINE
- FENCE
- UNDERGROUND WATER LINE
- EXCAVATION AREA BOUNDARY

Note:
1. This Site Map is based on data from the Moore County, NC GIS office.
2. This site was not professionally surveyed; locations of utilities, tank components and other site features are approximate.

N

0 15 30 60

(IN FEET)
1 inch = 30 ft

Geological Resources, Inc.

Site Map

Fast Shoppe 29
Incident No. 29042
GRI Project No. 5264

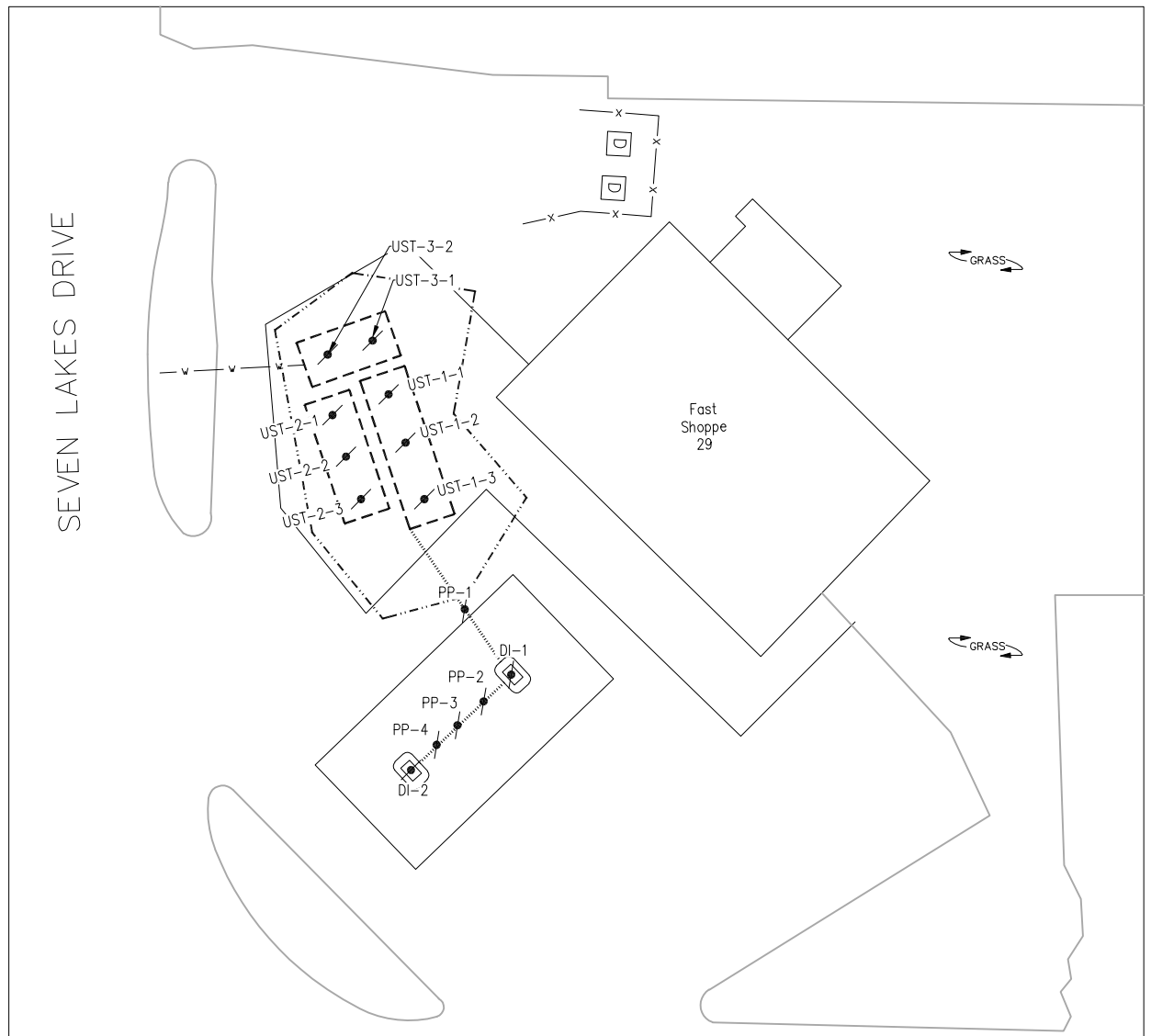
4331 NC-211
West End, North Carolina
Moore County

Date:	02/19/2023	Drawn by:	DTH	Figure:	2

LEGEND

- FUEL DISPENSER
- UNDERGROUND STORAGE TANK
- PRODUCT LINE
- FENCE
- UNDERGROUND WATER LINE
- EXCAVATION AREA BOUNDARY
- SOIL SAMPLE LOCATION

Contaminant of Concern →				Gasoline-Range TPH	Diesel-Range TPH
Sample ID	**Date Collected** (mm/dd/yy)	**Sample Location**	**Sample Depth** (ft-BGS)		
RAL (mg/kg)				**50**	**100**
UST-1-1-13'	02/16/23	UST Basin	13	<10	NR
UST-1-2-13'	02/16/23		13	<10	NR
UST-1-3-13'	02/16/23		13	<10	NR
UST-2-1-13'	02/16/23		13	<10	NR
UST-2-2-13'	02/16/23		13	<10	NR
UST-2-3-13'	02/16/23		13	<10	NR
UST-3-1-13'	02/16/23		13	<10	NR
UST-3-2-13'	02/16/23		13	<10	NR
DI-1-3'	02/16/23	Dispenser Island	3	15.6	NR
DI-2-3'	02/16/23		3	25.2	NR
PP-1-3'	02/16/23	Product Piping	3	13.4	NR
PP-2-3'	02/16/23		3	<10	NR
PP-3-3'	02/16/23		3	<10	NR
PP-4-3'	02/16/23		3	11.6	NR



N

Geological Resources, Inc.

0 15 30 60

(IN FEET)
1 inch = 30 ft

SOIL QUALITY MAP

Fast Shoppe 29
Incident No. 29042
GRI Project No. 5264

4331 NC-211
West End, North Carolina
Moore County

Date:	02/19/2023	Drawn by:	DTH	Figure:	3

TABLES

APPENDICES

APPENDIX A

Moore County Fire Permit

Moore County Public Safety / FMO

ER Permit Number	**562606**	Permit Date	**2/15/2023 12:00:00 AM**
Permit Type	**105.6.17 Flammable and combustible liquids.**	Effective Date	**2/15/2023 11:59:00 AM**
Created By	**Dawkins, Matthew**	Expiration Date	**5/16/2023 11:59:00 AM**
Authorized Date	**2/15/2023 9:00:21 AM**	Authorized By	**Dawkins, Matthew**

Site Information	Billing Information
Short Stop #29 **4331 NC 211 HWY** **West End, NC 27376**	**Short Stop #29** **4331 NC 211 HWY** **West End, NC 27376**

Point of Contact

Permit Notes:

Permit Form:

Form: **105.6.17 Flammable and combustible liquids**

Description: **05.6.17 Flammable and combustible liquids.**

Issued By:

Name: Dawkins, Matthew
Rank: FMD
Work Phone(s): 9109476317
Email(s): mdawkins@moorecountync.gov

Signature of: Dawkins, Matthew on 02/15/2023 12:00

Signature

2-15-23
Date

APPENDIX B

Notice of Intent form (UST-3)

UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Also send a copy to the Central Office in Raleigh.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

Complete and return a UST-3 form at least **thirty (30) days** prior to closure or change-in-service activities.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2A and/or 2B forms, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out. Note: Tank fees may be due for unregistered tanks.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Site Checks, Tank Closure and Initial Response*. The guidelines can be obtained at https://deq.nc.gov/about/divisions/waste-management/ust. Note: To close tanks in place you must obtain prior approval from the DWM Regional office located in the region where the facility is located.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity): LI'L Thrift Food Marts, Inc
Street Address: 1007 Arsenal Avenue
City: Fayetteville
County: Cumberland
State: NC
Zip Code: 28305-5329
Phone Number: 910-433-4490
Email: cvneal@shortstopfoodmarts.com

II. LOCATION

Facility Name or Company: Fast Shoppe 29
Facility ID # (If known): 00-0-0000020850
Street Address: 4331 Seven Lakes Drive
City: West End
County: **Moore**
Zip Code: 27376
Phone Number: 910-673-1976

III. CONTACT PERSONNEL

Name:	Company Name:	Job Title:	Phone Number:
Chris Neal	Short Stop Food Marts		910-433-4490

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

1. Contact local fire marshal.
2. Plan entire closure event.
3. Conduct Site Soil Assessment.
4. If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks.*
5. Provide a sketch locating piping, tanks and soil sampling locations.
6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
8. Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name: Justin Radford P.G.
Contractor Company Name: Geological Resources Inc.
Address: 3502 Hayes Road
City: Monroe
State: NC
Zip Code: 28110
Phone No: 704-845-4010
Primary Consultant Name: William Regenthal P.G.
Primary Consultant Company Name: Geological Resources Inc.
Consultant Phone No: 704-845-4010

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity: Closure – Removal	Proposed Activity: Closure – Abandonment in Place *	Proposed Activity: Change-In-Service – New Contents Stored
1	10,000	Gasoline	■	☐	
2	8,000	Gasoline	■	☐	
3	6,000	Gasoline	■	☐	
			☐	☐	
			☐	☐	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

Has a release from a UST system occurred at this location? ■ Yes ☐ No ☐ Unknown

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: William Regenthal, P. G.

Signature	Date Signed	SCHEDULED REMOVAL DATE	**Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes**
	1/6/2023	**Week of 02/06/2023**	

APPENDIX C

UST-2A Form

UST-2A

Site Investigation Report for Permanent Closure or Change-in-Service of REGISTERED UST

Return completed form to:

NC DEQ / DWM / UST SECTION
1646 MAIL SERVICE CENTER
RALEIGH, NC 27699-1646
ATTN: REGISTRATION & PERMITTING

phone (919) 707-8171 fax (919) 715-1117 http://www.wastenotnc.org/

STATE USE ONLY:
Facility ID #

Date Received

INSTRUCTIONS (READ THIS FIRST)

1. UST permanent closure or change in service must be completed in accordance with the latest version of the *Guidelines for Site Checks, Tank Closure and Initial Response and Abatement*. The guidelines can be obtained at http://deq.nc.gov/about/divisions/waste-management/waste-management-permit-guidance/underground-storage-tanks-section.
2. Permanent closure: Complete all sections of this form.
3. Change-in-service: Where a UST system will be converted from storing a regulated substance to a non-regulated substance, complete sections I, II, III, IV, and VI
4. For more than 5 registered UST systems, attach additional forms as needed
5. **Tank Fee Refund: An annual tank fee may be refunded for a tank for which a tank fee was not required. An owner or operator must submit a written request and include: (1) contact information, (2) federal identification # or SSN, and (3) a copy of UST-2 form. The annual tank fee will be prorated based on the date of permanent closure.**
6. UNREGISTERED USTs use Form UST-2B

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity): Li'l Thrift Food Stores, Inc.

Street Address: 1007 Arsenal Avenue

City: Fayetteville County: Cumberland

State: NC Zip Code: 28305-5329

Phone Number: 910-433-4490

II. LOCATION OF TANKS

Facility Name or Company: Fast Shoppe #29

Facility ID # (If known): 00-0-0000020850

Street Address: 4331 Seven Lakes Drive

City: West End County: Moore Zip Code: 27376

Phone Number:

III. CONTACT PERSONNEL

Contact for Facility: Chris Neal		Job Title: Owner	Phone #: 910-433-4490
Closure Contractor Name: Justin Radford, P. G.	Closure Contractor Company: Geological Resources, Inc.	Address: 3502 Hayes Road	Phone # 704-845-4010
Primary Consultant Name: William Regenthal, P. G.	Primary Consultant Company: Geological Resources, Inc.	Address: Monroe, NC 28110	Phone # 704-845-4010

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS

UNREGISTERED USTs use Form UST-2B

V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Last Contents	Last Use Date	Permanent Close Date	Method of Permanent Closure: Indicate REMOVED or enter fill material, such as foam/ concrete/ sand	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	10,000	Gasoline	9/26/22	2/16/23	REMOVED		☐	■	☐	■	■	☐
2	8,000	Gasoline	9/26/22	2/15/23	REMOVED		☐	■	☐	■	■	☐
3	6,000	Gasoline	9/26/22	2/16/23	REMOVED		☐	■	☐	■	■	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

VI. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative

William Regenthal, P. G. - Project Manager

Signature 

Date Signed 2/23/2023

APPENDIX D

Health and Safety Plan

GEOLOGICAL RESOURCES, INC.

Site Specific Health and Safety Plan

1.0 General Information:

a. Project name: Fast Shoppe 29

b. Location: 4331 NC-211
West End, Moore County, NC

c. GRI Job #: 5264

2.0 Project Organization:

a. Site Supervisor/H&S Officer:

b. Project Manager: Ethan Rogerson, GRI

c. Subcontractor(s):

3.0 Safety Plan Preparation:

a. Prepared by & date: Ethan Rogerson, GRI on 2/9/2023

b. Reviewed/approved by & date: William Regenthal, GRI on 2/9/2023

4.0 Site History and Description:

a. Type of site (i.e., spill, leaking UST system, etc.): UST

b. Site/project description: UST Removal

5.0 Potential Hazards:

Physical Hazards: (check)

X	Slips	X	Overhead utilities	X	Explosion		Sun burn	X	Electricity
X	Trips			X	Noise	X	Cold Weather	X	Pressurized line/vessels
X	Falls	X	Underground utilities	X	Pinch points		Hot Weather	X	TRAFFIC
X	Fire			X	Burns	X	Crush		

Chemical Hazards: (check)

X	Gasoline		Used Oil		
	Diesel		Solvents		
	Kerosene		Antifreeze		
	New Oil		Acid (sample preservative)		

Equipment/Vehicular/Other: (i.e., Geoprobe, drill rig, back hoe, track hoe, traffic, skid steer etc.)

Excavator, Skid Steer, Low Boy, Dump Trucks, Air Compressor

Biological Hazards: (i.e., toxic insects, spiders, poisonous plants, poisonous snakes, aggressive dogs)

6.0 Site Organization and Safety Control: (Evaluate the need for site control to protect persons from exposure to hazardous conditions; i.e. work permits, cones, barricade tape, exclusion zones, etc.)

a. Work area(s) identified: ___Entire site_____
b. Work area marked _____ Yes_____ No
c. Work area barricaded _____ Yes _____ No
d. Support area established: _____
e. Entry and escape routes identified: _____
f. Rally point identified: ____ Yes _____ No Location: _____
g. **Emergency shut-off for water identified** _____ Yes _____ No
h. **Emergency fuel shut-off identified** _____ Yes _____ No
i. Site map attached: __X___ Yes _____ No

****Emergency Response Procedures****

Action (i.e. shut off all power equipment) Assemble at rally point
Call 911 for medical or utilities emergency Do NOT enter confined spaces
Discuss what to do if …..cut product line, water line, cable/electric line

7.0 Job Activities in Work Plan:

__X__ UST Removal	__X__ Soil Sampling	___ Manual FP Recovery
__X__ Soil Excavation	___ System O&M	___ Other (specify) _____
___ Powered Drilling	___ MMPE/AFVR	_____
__X__ Hand Augering	_Water sampling	_____

8.0 Required Education and/or Training:

X	OSHA 40 hr	X	Annual 8 hr Refresher		OSHA Site Supervisor

9.0 Air Monitoring:

If, in the opinion of the site supervisor, petroleum hydrocarbon vapor concentrations are excessive, site activities will cease until petroleum hydrocarbon vapor concentrations diminish to acceptable levels.

10.0 Equipment:

__X__ FID/PID	__X__ Combustible gas indicator	___ Interface Probe
__X__ O2 meter	___ Other _____	

11.0 Personnel Protection Equipment:

X	Hard hat		Rubber boots		Respirator	X	Hearing		
X	Safety glasses	X	Work gloves	X	Sun screen		protection		
X	Steel toe boots	X	First aid kit	X	Repellent	X	Nitrile		
	Tyvek suit	X	Fire extinguisher		Dust mask		gloves		

12.0 Decontamination Procedures: (evaluate need for decon, describe procedures)

13.0 Emergency Contacts:

a. Local Assistance:

Site Phone		Fire Department	911
Police	911	Ambulance	911
Water		**Sanitary Sewer**	
Natural Gas		**Power Company**	

Nearest Hospital with Emergency Room (**directions attached**)

Name Moore Regional Hospital
Address 155 Memorial Drive
Pinehurst, NC 28374
Number (910) 715-1000

b. National or Regional Sources of Assistance:

1)	Geological Resources, Inc.	(866) 744-5220
2)	Chemtrec (24 Hours)	(800) 424-9300
3)	Bureau of Explosives (24 Hours)	(888) 283-2662
4)	National Response Center, NRC (Oil/Hazardous Substances)	(800) 424-8802
5)	DOT, Off. Of Haz. Operations	(800) 467-4922

14.0 Signatures:

This plan has been reviewed by all on-site personnel and all provisions are clear (signatures required).

Project Manager: Ethan Rogerson, GRI 2/9/2023
Site Supervisor:
Other personnel:

15.0 Amendments:

a. Site Specific Health and Safety Plans are based on information available at the time of plan preparation. Unexpected conditions may arise. It is important that personal protective measures be thoroughly assessed prior to and during the planned activities. Unplanned activities and/or changes in the hazard status should initiate a review of this plan and may result in major changes to it.
b. Changes in the hazard status or unplanned activities are to be submitted on "Amendment to the Site Specific Health and Safety Plan" which is included bellow.
c. Amendment must be approved by the Project Manager prior to implementation of the amendment.

AMENDMENT TO THE SITE SPECIFIC HEALTH AND SAFETY PLAN

A. Changes in field activities or hazards:

B. Proposed amendment:

C. Approval:

Proposed by: _____date _____

Approved by: _____date _____

Amendment number: _____

Amendment effective date: _____

APPENDIX E

UST Disposal Manifest

UST DISPOSAL MANIFEST

Site Name: Fast Shoppe 29

Site Address: 4331 NC-211, West End, NC 27376

The following UST(s) were removed from the above noted site on 02/15/23 + 02/16/23 and transported to DH Griffin Wrecking - Troy, NC where the UST will be properly disposed of at a future date.

1. 10,000-gal. SW steel gasoline UST
2. 8,000-gal. SW steel gasoline UST
3. 6,000-gal. SW steel gasoline UST
4. _____

Signature: Kyle Perry

Printed Name: Kyle Perry

Date: 02/16/2023

APPENDIX F

Liquid Disposal Manifest

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 2300848

2. Page 1 of

3. Generator's Name and Mailing Address
GRI
4331 NC Highway 211
West End NC 27376

4. Generator's Phone ( )

5. Transporter 1 Company Name
Herr LLC

6. US EPA ID Number
NCR000139816

A. State Transporter's ID

B. Transporter 1 Phone 910-640-2607

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Herr LLC
809 Blair Street
Thomasville NC 27360

10. US EPA ID Number
NCR000139816

E. State Facility's ID

F. Facility's Phone
910-640-2607

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non RCRA, Non DOT Regulated Material - Petro Impacted Water	1	TT	867	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Jacob Fichtner

Signature

Date: Month 7 Day 13 Year 23

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jose Ramirez

Signature

Date: Month 2 Day 15 Year 23

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name

Signature

Date: Month Day Year

NON-HAZARDOUS WASTE

APPENDIX G

Soil Disposal Manifests

Name:				Job:				Material					
date		15-Feb	15-Feb	15-Feb	15-Feb	15-Feb	16-Feb						
	load #	1	2	3	4	5	6						
	trucking	DC2	DC1	DC1	DC2	DS6	DC 2						
	gross	66,340	72,160	69,260	71,160	70,520	65,200						
	tare	28,000	27,900	27,900	28,300	27,280	28,300						
	net	38,340	44,260	41,360	42,860	43,240	36,900	-	-	-	-		
	tons	19.17	22.13	20.68	21.43	21.62	18.45	0.00	0.00	0.00	0.00		123.48
date													
	load #												
	trucking												
	gross												
	tare												
	net	-	-	-	-	-	-	-	-	-	-		
	tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-
date													
	load #												
	trucking												
	gross												
	tare												
	net	-	-	-	-	-	-	-	-	-	-		
	tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-
date													
	load #												
	trucking												
	gross												
	tare												
	net	-	-	-	-	-	-	-	-	-	-		
	tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-
date													
	load #												
	trucking												
	gross												
	tare												
	net	-	-	-	-	-	-	-	-	-	-		
	tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-
									Page 1 Sum Total				123.48

PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
JOE F. HOLDER 42672
INVALID UNLESS SIGNED

JH
PROOF

AES of NC
Post Office Box 310
Sanford, NC 27331
Phone #: 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 1
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: D + C	Contact: Phone :
Destination: AES of NC: 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:*
Truck #: ~~DS#~~ DC2	*Gross Weight:*
	Tare Weight:
	Net Weight: 19.17 tons

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Generator / Agent Signature — Staff Scientist (Title) — 2/15/23 (Date)

Acknowledgment of Receipt of Material: Bernado Johnson (Drivers Signature) — 2/15/23 (Date)

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: S Rotenberry — Date: 2-15-23

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
JOE F. HOLDER 42672
INVALID UNLESS SIGNED

AES of NC
Post Office Box 310
Sanford, NC 27331
Phone #: 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 2
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: D+C	Contact: Phone :
Destination: AES of NC: 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:*
Truck #: DC1	*Gross Weight:*
	Tare Weight:
	Net Weight: 22.13 tons

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Generator / Agent Signature — Title: Staff Scientist — Date: 2/15/23

Acknowledgment of Receipt of Material: Drivers Signature — Date: 2-15-23

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: _____ Date: 2-15-23

PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
JOE F. HOLDER 42672
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AES of NC
Post Office Box 310
Sanford, NC 27331
Phone #: 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 3
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: D+C	Contact: Phone :
Destination: AES of NC 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:*
Truck #: DC1	*Gross Weight:*
	Tare Weight: 20.68 Ton
	Net Weight:

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Generator / Agent Signature — Staff Scientist (Title) — 02/15/23 (Date)

Acknowledgment of Receipt of Material: Drivers Signature — 2/15/23 (Date)

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: _____ Date: 2-15-23

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
JOE F. HOLDER 42672
INVALID UNLESS SIGNED

AES of NC
Post Office Box 310
Sanford, NC 27331
Phone #: 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 4
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: D+C	Contact: Phone :
Destination: AES of NC: 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:* 06:08PM 02/15/2023 93 ID. NO.
Truck #: DC2	*Gross Weight:* 71160 lb GR 28300 lb TR REGAL 42860 lb NT
	Tare Weight: 21.43 ton
	Net Weight:

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Generator / Agent Signature — Title: Staff Scientist — Date: 2/15/23

Acknowledgment of Receipt of Material: Drivers Signature — Date: 2/15/23

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: _____ Date: 2-15-23

NORTH CA[illegible]
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
JOE F. HOLDER 42672
INVALID UNLESS SIGNED

AES of NC
Post Office Box 310
Sanford, NC 27331
Phone #: 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 5
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: Dengar	Contact: Phone :
Destination: AES of NC: 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:*
Truck #: DS6	*Gross Weight:*
	Tare Weight:
	Net Weight: 21.62

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Kyle Perry — Staff Scientist — 2/15/23
Generator / Agent Signature — Title — Date

Acknowledgment of Receipt of Material: _____ — 2-15-23
Drivers Signature — Date

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: _____ Date: 2-15-23

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30, 2023
CHRISTINA EDGE 43958
Christine Edge
INVALID UNLESS SIGNED

AES of NC
Post Office Box 310
Sanford, NC 27331
Phone ': 919-777-4405
Fax #: 704-973-9573
Email: aescompostingnc1@gmail.com

NON-HAZARDOUS WASTE MANIFEST

Project Number: 5264	Load Number: 6
Consultant: GRI	Contact: Justin Radford
Generator: Fast Shoppe 29	Contact: Phone
Transporter: D+C	Contact: Phone :
Destination: AES of NC: 3841 Cunningham Rd., Thomasville, NC 27360	Contact: Scott Keller / Frankie Holder Phone: 919-770-4258 or 919-777-4405
Waste: petroleum contact soil	*Waste Origination:*
Truck#: DC2	*Gross Weight:*
	Tare Weight:
	Net Weight: 18.45 TONS

Generator's Certification: I certify that the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE.

Generator / Agent Signature — Staff Scientist (Title) — 2/16/23 (Date)

Acknowledgment of Receipt of Material: Drivers Signature — 2/16/23 (Date)

Noted Discrepancies: _____

Inspected & Accepted (except as noted above by: AES of NC)

Accepted By: Christine Edge — Date: 2/16/23

APPENDIX H

UVF Report

Geological Resources, Inc.

UVF Trilogy Analytical Report

Samples Collected: February 15, 2023 and February 16, 2023
Samples Analyzed: February 16, 2023
Site Name: Fast Shoppe 29
Site Address: 4331 NC-211, West End, NC
GRI Project Number: 5264

February 17, 2023

Eric Eubanks
Operator

3502 Hayes Road • Monroe, North Carolina 28110
113 West Firetower Road, Suite G • Winterville, North Carolina 28590
Phone (704) 845-4010 • (888) 870-4133 • Fax (704) 845-4012
Engineering Certification: C-2727 • Geology Certification: C-127

Sample Collection and Handling

Soil samples may be collected using any acceptable procedure. Sampler must use a clean pair of nitrile gloves for each sample collected. The sample will be placed in a clean, sealable bag (ziplock). Once collected, the sample must be analyzed immediately or placed on ice. The sample may be kept on ice for up to 48 hours prior to UVF analyses. If the sample cannot be analyzed within 48 hours, the sample may be extracted and kept at 4 degrees C for up to 14 days. Proper chain-of-custody procedures must be followed.

Calibration

The UVF Trilogy has standard calibrations stored for the following analysis:

- GRO
- DRO
- Total PAH
- Target PAH
- Heavy PAH

Prior to use, calibration standards are used to perform a 5-point verification on the factory stored calibrations for GRO and DRO. The calibration standards used are as follows:

GRO

- 0.5 ppm
- 1 ppm
- 3 ppm
- 5 ppm
- 10 ppm

DRO

- 0.1 ppm
- 0.5 ppm
- 1 ppm
- 3 ppm
- 5 ppm

Operation

<u>Sample Extraction</u>

- 5mg of soil are weighed into a clean extraction jar
- Methanol is added to the extraction jar to create a 2x or 4x dilution
    - 2x Dilution: 10 mL of methanol
    - 4x Dilution: 20 mL of methanol
- The extraction jar is shaken for several minutes to thoroughly mix the soil with solvent (methanol)
- The mixture is allowed to settle for several minutes
- A clean syringe is used to draw liquid from the extraction jar
- A clean filter is attached to the end of the syringe and the liquid dispensed through the filter into a clean test tube
- This liquid is referred to as the extraction
- Please note that any samples extracted and/or analyzed offsite require a Chain of Custody documenting the collection, extraction and custody of the sample(s)

Dilution Preparation

- An adjustable micropipette is used to precisely measure out the amount of extract needed for the dilution
- The measured out amount of the extract is added to a clean test tube and methanol is added to dilute the extract. Examples of dilutions are shown below:

Extract Amount	Add Solvent to the	2x Extract Dilution Factor	4x Extract Dilution Factor
500 µL	5 mL line	20x	40x
200 µL	5 mL line	50x	100x
100 µL	5 mL line	100x	200x
50 µL	5 mL line	200x	400x
25 µL	5 mL line	400x	800x

Sample Analyzation

- The dilution is shaken to thoroughly mix, then poured into a clean glass cuvette
- The desired module is inserted into the UVF Trilogy and the corresponding factory calibration is selected
- "Measure Fluorescence" is pressed on the touchscreen and the reading is recorded
- The reading should be between the concentrations of the calibration standards (GRO: 0.5-10 ppm; DRO 0.1-5 ppm)
    - Reading below the calibration standard range are recorded as below the detection limit
        - Detection Limit = (lower range of calibration standards range) x dilution factor (i.e. a GRO sample with a 100x dilution factor has a detection limit of 50 ppm)
    - Readings above the calibration standard range should be further diluted and reanalyzed
    - Negative readings are an indication of quenching (see below)
- The reading is multiplied by the dilution factor to calculate the final concentration
- Check suspected contaminated samples for quenching by running additional dilutions
    - According to the siteLAB Quick Reference Guide:
      "Quenching" can occur when the detector is swamped by too many hydrocarbons or organic interferences, producing low or negative concentrations. Test the sample at multiple dilutions to confirm results are linear and accurate."

QA/QC

Calibration

- The UVF Trilogy will be calibrated daily prior to use
- The calibration results will be saved and entered into the calibration log

Method Blank

- A method blank of methanol will be analyzed following calibration and following the last sample analyzed for each day

Duplicates

- One duplicate will be analyzed for every 20 samples
- The duplicate will be prepared from the extract of the sample and diluted to the same factor as the sample analyzed

Geological Resources, Inc.

UVF Analytical Report

siteLAB UVF Trilogy

Project Name:	Fast Shoppe 29	**Date Collected:**	02/15/23 and 02/16/23
Project Number:	5264	**Date Analysed:**	2/16/2023
Project Manager:	Ethan Rogerson	**Operator:**	Eric Eubanks

Sample ID	Matrix	Dilution Factor	x	GRO Output (ppm)	=	GRO Value (mg/Kg)	Dilution Factor	x	DRO Output (ppm)	=	DRO Value (mg/Kg)
UST-1-1-13'	Soil	20		<10		<10	---		---		---
UST-1-2-13'	Soil	20		<10		<10	---		---		---
UST-1-3-13'	Soil	20		<10		<10	---		---		---
UST-2-1-13'	Soil	20		<10		<10	---		---		---
UST-2-2-13'	Soil	20		<10		<10	---		---		---
UST-2-3-13'	Soil	20		<10		<10	---		---		---
UST-3-1-13'	Soil	20		<10		<10	---		---		---
UST-3-2-13'	Soil	20		<10		<10	---		---		---
DI-1-3'	Soil	20		0.78		15.6	---		---		---
DI-2-3'	Soil	20		1.26		25.2	---		---		---
PP-1-3'	Soil	20		0.67		13.4	---		---		---
PP-2-3'	Soil	20		<10		<10	---		---		---
PP-3-3'	Soil	20		<10		<10	---		---		---
PP-4-3'	Soil	20		0.58		11.6	---		---		---
TS-1	Soil	100		3.2		320	---		---		---
TS-2	Soil	100		2.88		288	---		---		---
TS-3	Soil	100		3.02		302	---		---		---
TS-4	Soil	100		2.14		214	---		---		---
TS-5	Soil	100		2.42		242	---		---		---
TS-6	Soil	100		1.77		177	---		---		---

Geological Resources, Inc.

UVF Calibration Report

siteLAB UVF Trilogy

Date Calibrated: 2/16/23

Operator: Eric Eubanks

GRO Calibration Verification	
Calibration Standard	Output
0.5	0.84
1	1.35
3	3.32
5	5.40
10	10.28

DRO Calibration Verification	
Calibration Standard	Output
0.1	—
0.5	—
1	—
3	—
5	—

Notes: GRO only

Geological Resources, Inc.
3502 Hayes Road
Monroe, NC 28110

Phone: (704) 845-4010
Fax: (704) 845-4012

Geological Resources, Inc.

Data Analysis Form

Project: Fast Shoppe 29 **GRI No.** 5264
Address: 4331 NC-211 West End NC 27376
Consultant: Geological Resources, Inc
Project Manager: Ethan Rogerson **Telephone/Email:** egre geologicalresourcesinc.com
Sampler(s): Eric Eubanks **Telephone/Email:** 704-845-4010
Analyzed Onsite: Yes ✓ No

Sample ID	Date Extracted	Date Analyzed	Time	Matrix	GRO			DRO		
					Dilution	Reading	Value	Dilution	Reading	Value
UST-1-1-13'	2/16/23	2/16/23	1052	Soil	20x	<0.5	<10	—	—	—
UST-1-2-13'	2/16/23	2/16/23	1057	Soil	20x	<0.5	<10	—	—	—
UST-1-3-13'	2/16/23	2/16/23	1100	Soil	20x	<0.5	<10	—	—	—
UST-2-1-13'	2/16/23	2/16/23	1103	Soil	20x	<0.5	<10	—	—	—
UST-2-2-13'	2/16/23	2/16/23	1106	Soil	20x	<0.5	<10	—	—	—
UST-2-3-13'	2/16/23	2/16/23	1108	Soil	20x	<0.5	<10	—	—	—
UST-3-1-13'	2/16/23	2/16/23	1111	Soil	20x	<0.5	<10	—	—	—
UST-3-2-13'	2/16/23	2/16/23	1114	Soil	20x	<0.5	<10	—	—	—
DI-1-3'	2/16/23	2/16/23	1116	Soil	20x	0.78	15.6	—	—	—
DI-2-3'	2/16/23	2/16/23	1119	Soil	20x	1.26	25.2	—	—	—
TS-1	2/16/23	2/16/23	1128	Soil	100x	3.20	320	—	—	—
TS-2	2/16/23	2/16/23	1130	Soil	100x	2.88	288	—	—	—

Pre-Sampling Method Blank Output: GRO: <0.5 DRO: —
Post-Sampling Method Blank Output: GRO: <0.5 DRO: —

Note: If the output value is greater than the desired range, additional dilutions will be prepared, analyzed and documented until the output value falls within the desired range (0.5< GRO <10; 0.1< DRO <5)

Geological Resources, Inc.
3502 Hayes Road
Monroe, NC 28110

Phone: (704) 845-4010
Fax: (704) 845-4012

Geological Resources, Inc.

Data Analysis Form

Project: Fast Shoppe 29 **GRI No.** 5264
Address: 4331 NC-211, West End, NC 27376
Consultant: Geological Resources, Inc.
Project Manager: Ethan Rogerson **Telephone/Email:** egr@geologicalresourcesinc.com
Sampler(s): Eric Eubanks **Telephone/Email:** 704-845-4010
Analyzed Onsite: Yes ✓ No

Sample ID	Date Extracted	Date Analyzed	Time	Matrix	GRO			DRO		
					Dilution	Reading	Value	Dilution	Reading	Value
TS-3	2/16/23	2/16/23	1132	Soil	100x	3.02	302	—	—	—
TS-4	2/16/23	2/16/23	1135	Soil	100x	2.14	214	—	—	—
TS-5	2/16/23	2/16/23	1137	Soil	100x	2.42	242	—	—	—
Dup-A	2/16/23	2/16/23	—	Soil	100x	2.56	256	—	—	—
TS-6	2/16/23	2/16/23	1329	Soil	100x	1.77	177	—	—	—
PP-1-3'	2/16/23	2/16/23	1316	Soil	~~100x~~ 20x	0.67	13.4	—	—	—
PP-2-3'	2/16/23	2/16/23	1319	Soil	20x	<0.5	<10	—	—	—
PP-3-3'	2/16/23	2/16/23	1321	Soil	20x	<0.5	<10	—	—	—
PP-4-3'	2/16/23	2/16/23	1324	Soil	20x	0.58	11.6	—	—	—

Pre-Sampling Method Blank Output: GRO: <0.5 DRO: —
Post-Sampling Method Blank Output: GRO: <0.5 DRO: —

Note: If the output value is greater than the desired range, additional dilutions will be prepared, analyzed and documented until the output value falls within the desired range (0.5< GRO <10; 0.1< DRO <5)

UST Closure Report
NCDOT R-5726, WBS 50218.1.1
Parcel No. 089 - 4039 NC 211
West End, Moore County, North Carolina
S&ME Project No. 212201E

PREPARED FOR:

North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

PREPARED BY:

S&ME, Inc.
3201 Spring Forest Road
Raleigh, NC 27616

August 29, 2022

August 29, 2022

North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Attention: Mr. Ashley B. Cox, Jr., L.G. via email: abcox@ncdot.gov

Reference: **Underground Storage Tank Closure Report**
NCDOT Project R-5726, WBS 50218.1.1
Parcel No. 089 Norris Randall and Kathy Jessup
4039 NC 211 West End, Moore County, North Carolina
S&ME Project No. 212201E

Dear Mr. Cox:

S&ME, Inc. (S&ME) is submitting this Underground Storage Tank Closure Report for the above-referenced property. These services were performed according to the terms of Limited Services Contract Number 7000020470 dated March 16, 2020 between NCDOT and S&ME, Inc, and Purchase Order No. 6300069963, dated July 28, 2022.

Please contact us at your earliest convenience if there are questions regarding the information contained in this report.

Sincerely,

S&ME, Inc.

DocuSigned by:
Jamie T. Honeycutt
4C890EAEC25F488...

Jamie T. Honeycutt
Environmental Professional
jhoneycutt@smeinc.com

DocuSigned by:
Tom Raymond
D4B9FB5F636F4BB...

Thomas P. Raymond, P.E., P.M.P.
Senior Engineer
traymond@smeinc.com

Cc: Michael Pfeifer – S&ME, Inc.

Attachment: Underground Storage Tank Closure Report

Table of Contents

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Appendices

1.0 Site Identification

Date of Report:	August 29, 2022
Site Name:	NCDOT Project R-5726, WBS 50218.1.1
Site Location:	NCDOT Public Utility Easement (PUE) Parcel ID No. 089 (Norris Randall and Kathy Jessup) 4039 NC-211 West End, Moore County, North Carolina UST Facility ID: Not Provided
UST Owner:	Norris Randall and Kathy Jessup
Property Owner:	NC Department of Transportation
Property Occupant:	vacant business (possible garden center)
UST Closure Contractor:	CCI Environmental Services, Inc. 281 Land Parkway Salisbury, NC 28146 Phone: (704-754-2010)
Consultant:	S&ME, Inc. 3201 Spring Forest Road Raleigh, North Carolina 27616 Phone: (919-872-2660)
Analytical Laboratory:	Eurofins Savannah (State Certification No.: 269) 5102 LaRoche Avenue Savannah, GA 31404 Phone: (404-944-4744)
Release Information:	Analytical results of soil samples collected on August 10, 2022 from base of the UST excavation indicated no release.
Former UST System:	1 – ~375-gallon UST (removed on August 10, 2022) 1-~1,000 gallon UST (removed on August 10, 2022)
Source Latitude/Longitude:	Latitude: 267738 °N Longitude: -79.592592 °W (UST Basin)

I, Thomas P. Raymond, a Professional Engineer for S&ME, do certify that the information contained in this report is correct and accurate to the best of my knowledge. S&ME is licensed to practice geology/engineering in North Carolina. Geology License Certification #C-145 and Engineering License Certification #F-0176.

DocuSigned by:
Tom Raymond
D4B9FB5F636F4BB...

Thomas P. Raymond, P.E.

2.0 Scope of Services

On July 13, 2022, Mr. Ashley Cox, with the North Carolina Department of Transportation (NCDOT) requested assistance to remove two underground storage tanks (USTs) located within the NCDOT Public Utility Easement (PUE) on parcel number 089 located at 4039 NC 211 in West End, Moore County, North Carolina. Mr. Cox provided S&ME with a copy of a Preliminary Site Assessment (PSA) dated October 21, 2019, completed on the property by Geosyntec Consultants of NC, PC. The PSA included a geophysical survey completed by Pyramid Geophysics in August 2019 which identified two probable USTs located at the southwest corner of the onsite building. The USTs were estimated to be approximately 8 feet wide and 14 feet long (approximately 5,000-gallon tank) and 8.5 feet wide and 15.5 feet long (approximately 7,000-gallon tank).

On July 26, 2022, S&ME provided NCDOT with our Proposal for UST Closure, which was accepted by their issuance of Purchase Order 6300069963 on July 28, 2022. S&ME's approved Scope of Services for this project included the following:

- Subcontract a private locator;
- Remove up to 400-gallon of residual fluids from the USTs;
- Remove two USTs (5,000-gallon and 7,000-gallon);
- If encountered, remove up to 50 tons of petroleum impacted soil;
- If groundwater is encountered, collect a groundwater sample;
- Collect confirmatory soil samples;
- Collect risk-based soil samples if over-excavation is performed;
- Backfill excavation; and,
- Prepare report.

S&ME completed the following scope of services:

- Subcontracted a private locator
- Removed and disposed of an approximately 375-gallon UST and an approximately 1,000-gallon UST.
- Collected confirmatory soil samples;
- Backfilled excavation; and,
- Prepared this report.

3.0 UST Closure

The site is located within the NCDOT PUE along NC 211 on Parcel 089 at 4039 NC 211, West End, Moore County, North Carolina (**Figures 1 and 2**). The property contains a vacant business which appears to have most recently been a garden center.

In preparation of our field services, S&ME prepared a site-specific Health and Safety Plan in general accordance with 29 CFR 1910.120. S&ME notified the public utility locating service (NC One Call) and subcontracted with East Coast Underground, LLC (East Coast), a private utility locator, to clear the proposed excavation area of underground utilities.

On August 10, 2022, S&ME personnel met East Coast's subsurface utility locating personnel at the site. During the locating of underground utilities, two anomalies were identified using ground penetrating radar (GPR). These anomalies coincided with the two probable USTs previously identified on the subject property by Pyramid Geophysics at the southwest corner of the building.

3.1 UST Information

Based on information provided by NCDOT, two probable USTs were identified at the southwest corner of the building in August 2019 during a geophysical survey of the PUE on the property. The USTs were estimated to be approximately 8 feet wide and 14 feet long (approximately 5,000-gallon tank) and 8.5 feet wide and 15.5 feet long (approximately 7,000-gallon tank). The two USTs removed on August 10, 2022 were approximately 375 gallons and 1,000 gallons.

3.2 UST Closure Procedures

On August 10, 2022, S&ME met with CCI Environmental Services, Inc. (CCI), at the site to remove the USTs and compile information for this report. North Carolina Department of Environmental Quality (NCDEQ) Form UST-2B for permanent closure of unregistered UST is included in **Appendix I.**

Prior to the removal of the USTs, the overburden soil was removed using a track hoe, and the tops of the USTs were exposed. The tanks were located next to each other in an approximate north to south orientation at a depth of approximately three feet below ground surface (ft.-bgs). During the excavation, underground vent pipes were observed extending to the western side of the building from each tank. Visible signs of vent pipes were not observed above the ground. Product lines were observed extending from the tanks and terminating at the southern end of the tank excavation along with PVC pipes and corrugated drain pipes. A site map is included as **Figure 2**.

During the overburden excavation, Tank 1, which was located on the eastern side of the pit, collapsed due to corrosion. Tank 1 measured approximately three feet in diameter and seven feet long (approximately 375-gallon tank). Tank 2, which was located on the western side of the pit, measured approximately 3.5 feet in diameter and approximately 12.75 feet long (approximately 1,000-gallon tank). See **Table 1** for information about the USTs.

Both tanks were empty and did not require the removal of residual fluids or sludge. Prior to removal of the USTs, CCI personnel measured the lower explosive limit (LEL) in each tank, which was zero. Upon removal, corrosion and pitting were observed on Tank #2. However, no visible signs of holes were observed on Tank #2. Both tanks were placed into a CCI dump truck for offsite disposal. A copy of the tank disposal manifest is included in **Appendix II.**

Soils encountered during the excavation of the USTs consisted of tan to orange sand. No petroleum odors, elevated photo-ionization detector (PID) readings or staining were noted during the excavation. Groundwater was not encountered in the excavation pit which measured approximately eight to 11 feet wide, 12 to 17 feet long and six to seven feet deep.

After removal of the USTs, S&ME personnel collected two soil samples from beneath the former location of each tank. The soil samples were collected using the track hoe bucket and identified as Tank 1A, Tank 1B, Tank 2A and

Tank 2B. Tank 1A and Tank 1B were collected at a depth of approximately six ft.-bgs. Tank 2A and Tank 2B were collected at a depth of approximately eight ft.-bgs. The four soil samples were placed into laboratory-prepared containers and shipped under chain of custody procedures to Eurofins in Savannah, Georgia for analysis of Total Petroleum Hydrocarbons (TPH)-Gasoline Range Organics (GRO) and Diesel Range Organics (DRO). The sample locations are shown on **Figure 3**. Photographs of field activities are included in **Appendix III.**

3.3 Soil Sampling Results

The laboratory analytical results of soil samples collected from the UST excavation were below the laboratory's method detection limits.

A summary of the laboratory analytical results for the closure soil samples, and a comparison to NCDEQ's action levels are included in **Figure 3** and **Table 2**. A copy of the laboratory report and chain of custody forms are included in **Appendix IV**.

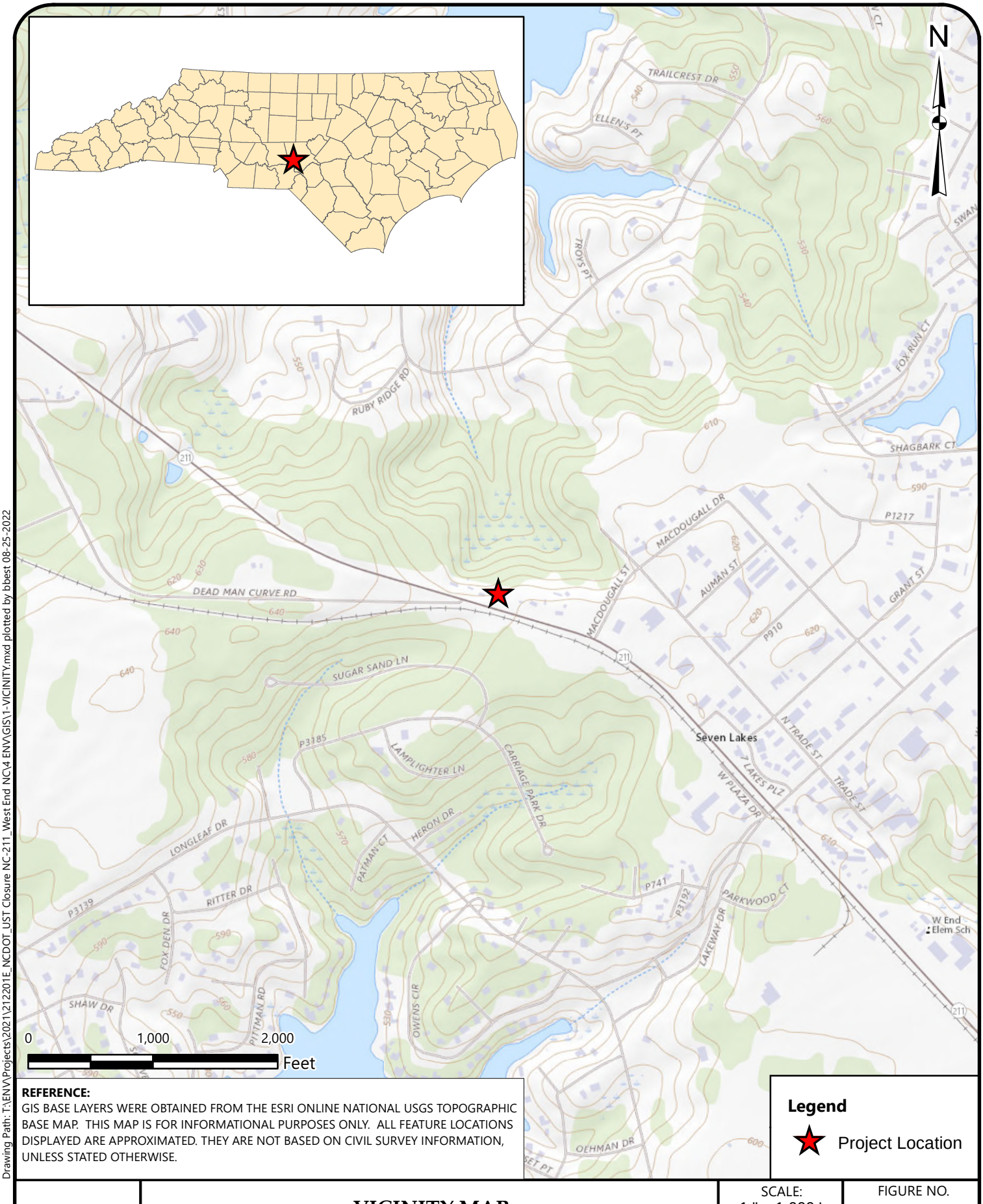
4.0 Conclusions

S&ME has completed closure activities of two USTs within the NCDOT PUE on parcel number 089 located at 4039 NC 211 in West End, Moore County, North Carolina. The findings at the site are as follows:

- The property contains a vacant business which appears to have most recently been a garden center.
- An approximately 375-gallon steel UST and 1,000-gallon steel UST were removed from the site on August 10, 2022.
- Both tanks were empty and required no removal of residual liquids or sludge.
- No petroleum odors, staining or elevated photo ionization detector (PID) readings were noted during the excavation of the USTs.
- Four confirmatory soil samples (Tank 1A, Tank 1B, Tank 2A and Tank 2B) were collected from the base of the excavation and analyzed for TPH-GRO and TPH DRO.
- Analytical results of the soil samples were below the laboratory method detection limits. Therefore, a release does not appear to have occurred from the USTs.

Appendices

Figures



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE ESRI ONLINE NATIONAL USGS TOPOGRAPHIC BASE MAP. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Legend

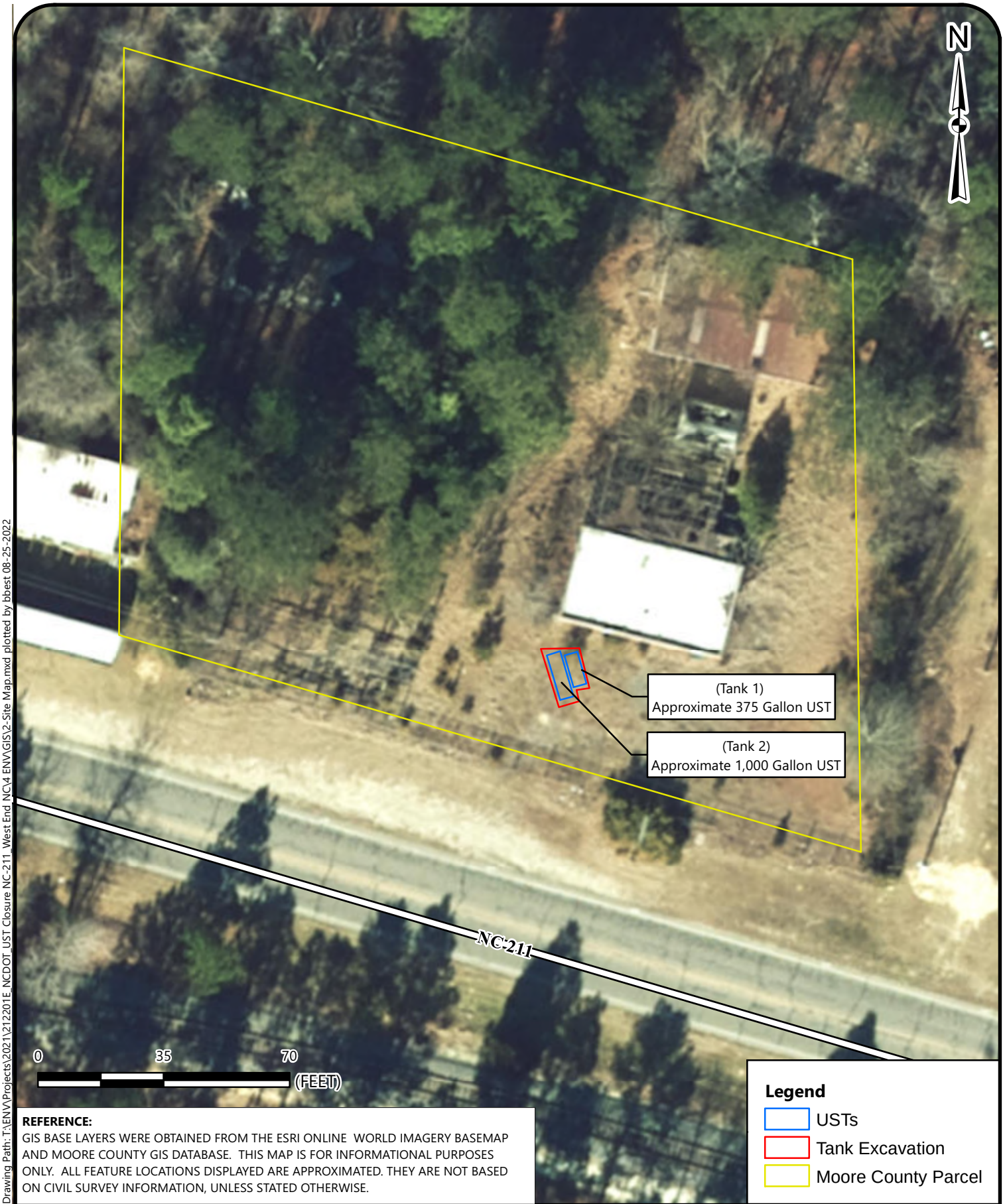
★ Project Location

Drawing Path: T:\ENV\Projects\2021\212201E_NCDOT_UST Closure NC-211_West End NC\4 ENV\GIS\1-VICINITY.mxd plotted by bbest 08-25-2022

VICINITY MAP

NCDOT PROJECT R-5726 (NCDOT PARCEL 89)
4039 NC 211
WEST END, MOORE COUNTY, NORTH CAROLINA

SCALE:	1 " = 1,000 '
DATE:	8-25-22
PROJECT NUMBER	212201E
FIGURE NO.	1



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE ESRI ONLINE WORLD IMAGERY BASEMAP AND MOORE COUNTY GIS DATABASE. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

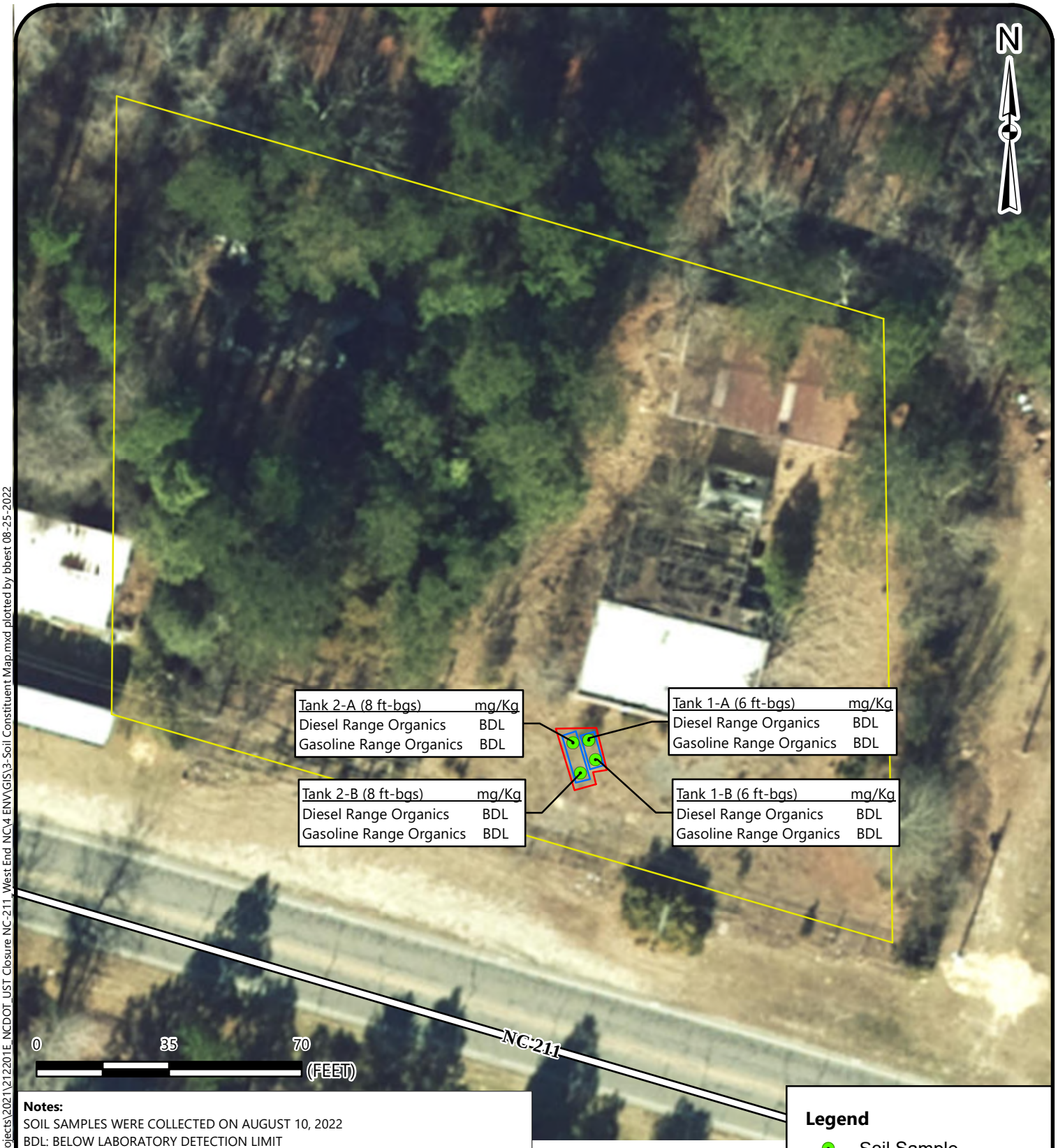
Legend
- USTs
- Tank Excavation
- Moore County Parcel

Drawing Path: T:\ENV\Projects\2021\212201E_NCDOT_UST Closure NC-211_West End_NC\4 ENV\GIS\2-Site Map.mxd plotted by bbest 08-25-2022

SITE MAP

NCDOT PROJECT R-5726 (NCDOT PARCEL 89)
4039 NC 211
WEST END, MOORE COUNTY, NORTH CAROLINA

SCALE: 1 " = 35 '
DATE: 8-25-22
PROJECT NUMBER 212201E
FIGURE NO. 2



Notes:
SOIL SAMPLES WERE COLLECTED ON AUGUST 10, 2022
BDL: BELOW LABORATORY DETECTION LIMIT

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE ESRI ONLINE WORLD IMAGERY BASEMAP AND MOORE COUNTY GIS DATABASE. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Legend
- Soil Sample
- USTs
- Tank Excavation
- Moore County Parcel

SOIL CONSTITUENT MAP

NCDOT PROJECT R-5726 (NCDOT PARCEL 89)
4039 NC 211
WEST END, MOORE COUNTY, NORTH CAROLINA

SCALE: 1 " = 35 '
DATE: 8-25-22
PROJECT NUMBER 212201E
FIGURE NO. 3

Drawing Path: T:\ENV\Projects\2021\212201E_NCDOT_UST Closure NC-211_West End NC\4 ENV\GIS\3-Soil Constituent Map.mxd plotted by bbest 08-25-2022

Tables

TABLE 1
UST Information
Parcel 089-Norris Randall and Kathy Jessup
NCDOT Project No. R-5726, WBS 50218.1.1
West End, Moore County, North Carolina
S&ME Project No. 212201E

UST ID Number	Current/Last Contents	Previous Contents	Capacity (gallons)	Construction Details	Tank Dimensions (feet: diameter x length)	Description of Associated Piping and Pumps	Date Installed	Status of UST	Release Associated With UST System
Tank 1	Unknown	Unknown	~375	Single-Wall Steel	3' x 7'	Steel	Unknown	Removed 8/10/2022	No
Tank 2	Unknown	Unknown	~1,000	Single-Wall Steel	3.5' x 11.75'	Steel	Unknown	Removed 8/10/2022	No

TABLE 2
Summary of Soil Sampling Results
Parcel 089-Norris Randall and Kathy Jessup
NCDOT Project No. R-5726, WBS 50218.1.1
West End, Moore County, North Carolina
S&ME Project No. 212201E

Analytical Method →				TPH by EPA Method 8015 (mg/kg)	
Contaminant of Concern →				Diesel Range Organics	Gasoline Range Organics
Sample ID	**Location**	**Date Collected**	**Sample Depth (ft-bgs)**		
Tank 1-A	North End of Tank 1	8/10/2022	6.0	<2.63	<3.00
Tank 1-B	South End of Tank 1	8/10/2022	6.0	<2.68	<2.86
Tank 2-A	North End of Tank 2	8/10/2022	8.0	<2.58	<2.89
Tank 2-B	South End of Tank 2	8/10/2022	8.0	<2.67	<2.81
North Carolina UST Section TPH Action Level				**100**	**50**

Notes:

Concentrations are reported in milligrams per kilograms (mg/Kg)

ft-bgs = feet below ground surface

TPH = Total Petroleum Hydrocarbons

Concentrations exceeding the laboratory's reporting limits are shown in **Bold** fields

Value Exceeds the TPH Action Levels

Appendix I – UST 2B

UST-2B

Site Investigation Report for Permanent Closure or Change-in-Service of UN-REGISTERED UST

Return completed form to:

NC DEQ / DWM / UST SECTION
1646 MAIL SERVICE CENTER
RALEIGH, NC 27699-1646
ATTN: REGISTRATION & PERMITTING

phone (919) 707-8171 fax (919) 715-1117 http://www.wastenotnc.org/

STATE USE ONLY:
Facility ID #

Date Received

INSTRUCTIONS (READ THIS FIRST)

1. UST permanent closure or change in service must be completed in accordance with the latest version of the Guidelines for Site Checks, Tank Closure and Initial Response and Abatement. The guidelines can be obtained at http://deq.nc.gov/about/divisions/waste-management/waste-management-permit-guidance/underground-storage-tanks-section.
2. Permanent closure: Complete all sections of this form.
3. Change-in-service: Where UST systems will be converted from storing a regulated substance to a non-regulated substance, complete sections I, II, III, IV, and VI.
4. For more than 5 un-registered UST systems, attach additional forms as needed.
5. **Un-Registered USTs may be subject to unpaid fees and late penalties.**
6. REGISTERED USTs use Form UST-2A.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity) Norris Randall and Kathy Jessup	
Street Address 6633 Brush Creek Road	
City Bennett	County
State NC	Zip Code 27208
Phone Number Not Provided	

II. LOCATION OF TANKS

Facility Name or Company NCDOT Public Utility Easement		
Facility ID # (If known) Not Applicable		
Street Address 4039 NC 211		
City West End	County Moore	Zip Code
Phone Number Not Applicable		

III. CONTACT PERSONNEL

Contact for Facility: Ashley Cox, Jr., L.G. (NCDOT)		Job Title: Project Engineer	Phone #: 919-707-6872
Closure Contractor Name: Donald Rife	Closure Contractor Company: CCI	Address: 281 Land Parkway, Salisbury, NC	Phone # 704-754-2010
Primary Consultant Name: Michael Pfeifer	Primary Consultant Company: S&ME, Inc.	Address: 3201 Spring Forest Rd, Raleigh,NC	Phone # 919-872-2660

IV. UST INFORMATION FOR UN-REGISTERED UST SYSTEMS

REGISTERED USTs use Form UST-2A.

V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Last Contents	Last Use Date	Permanent Close Date	Method of Permanent Closure: Indicate REMOVED or enter fill material, such as foam/ concrete/ sand	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	375	Unknown	Unkno		Removed		☐	☒	☐	☒	☐	☒
2	1000	Unknown	Unkno		Removed		☐	☒	☐	☒	☐	☒
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

VI. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative

Jamie T. Honeycutt (S&ME, Inc; Agent for NCDOT)

Signature

Jamie Honeycutt

Date Signed

8/10/2022

Appendix II – Tank Disposal Manifest

Tank Manifest

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address
Norris Randall + Kathy Jessup Parcel 089
4039 NC 211, West End, NC

4. Generator's Phone ( )

5. Transporter 1 Company Name
CCI

6. US EPA ID Number

A. State Transorter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
DH Griffin Wrecking CO
1563 NC-24
Biscoe NC 27209

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. 375 tank	1	DT		
b. 1000 tank	1	DT		
c.				
d.				

GENERATOR

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

NON-HAZARDOUS WASTE

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
Jamie T. Honeycutt SME (Agent for NC DOT)		8	10	22

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Jason E Freeman		8	10	22

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this maifest, except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year
Donald Ray		8	22	22

Rev. 3/95

Tax # 25540

D.H. GRIFFIN WRECKING COMPANY, INC.
BISCOE, NC 27209

5374

Check Date: 8/10/2022

DATE	INVOICE NO.	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE

Transaction	Tran-Date	Description	Gross	Tare	Net	Price / UM	Amo
1587061	8/10/2022	PLATE & STRUCTURAL UNP	30,900	28,460	2,440	CW	

CHECK DATE	CHECK NUMBER	TOTALS		

239183-0

Vendor: GENERAL PU CCI ENVIRONMENTAL **Amount:** 146.

D.H. GRIFFIN Wrecking Co. Inc

D.H. GRIFFIN WRECKING COMPANY, INC.
1563 NC HWY. 24 EAST
BISCOE, NC 27209

BB&T
Branch Banking and Trust Company
66-112/531

5374

DATE	CHECK NO.	AMOUNT
8/10/2022	53744	*****

PAY EXACTLY *****

PAY TO THE ORDER OF

CCI ENVIRONMENTAL
708 MARTIN LUTHER KING R
THOMASVILLE, NC 27860

VOID AFTER 90 DAYS

Eric Tedder Johnson

⑈053743⑈ ⑆053101121⑆0005106516539⑈

Appendix III – Photographic Log

Date: 8/10/2022

Photographer: J. Honeycutt

1	**Location / Orientation**	View of UST locations looking north.
	Remarks	USTs outlined in orange paint.

Date: 8/10/2022

Photographer: J. Honeycutt

2	**Location / Orientation**	Tank 1 looking north.
	Remarks	Tank is very rusty. Collapsed upon removal.

Date: 8/10/2022

Photographer: J. Honeycutt

3	**Location / Orientation**	USTs looking north.
	Remarks	Tank 1 to the right and Tank 2 to the left.

Date: 8/10/2022

Photographer: J. Honeycutt

4	**Location / Orientation**	Tank 1.
	Remarks	Note tank deterioration

Date: 8/10/2022

Photographer: J. Honeycutt

	Location / Orientation	View looking south of Tank 2 removal.
	Remarks	No staining.

Date: 8/10/2022

Photographer: J. Honeycutt

6	**Location / Orientation**	Removed tanks looking west.
	Remarks	None.

Date: 8/10/2022

Photographer: J. Honeycutt

7	**Location / Orientation**	UST pit after tank removals.
	Remarks	View looking north. No staining.

Date: 8/10/2022

Photographer: j. Honeycutt

8	**Location / Orientation**	Backfilling of pit with offsite stone fine material.
	Remarks	None

Date: 8/10/2022

Photographer: J. Honeycutt

9	**Location / Orientation**	Loading of tank and vent pipes for offsite disposal.
	Remarks	None.

Date: 8/10/2022

Photographer: j. Honeycutt

10	**Location / Orientation**	View looking north of excavation area.
	Remarks	None.

Appendix IV – Laboratory Analytical Results and Chain of Custody Form

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-219577-1
Client Project/Site: NC DOT - West End

For:
S&ME, Inc.
3201 Spring Forest Road
Raleigh, North Carolina 27616

Attn: Michael Pfeifer

Authorized for release by:
8/16/2022 5:45:08 PM

John Andros, Project Manager I
(404)944-4744
John.Andros@et.eurofinsus.com

Definitions/Glossary

Client: S&ME, Inc.
Job ID: 680-219577-1
Project/Site: NC DOT - West End

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: S&ME, Inc.
Job ID: 680-219577-1
Project/Site: NC DOT - West End

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-219577-1	Tank #1 A	Soil	08/10/22 09:00	08/11/22 10:30
680-219577-2	Tank #1 B	Soil	08/10/22 09:05	08/11/22 10:30
680-219577-3	Tank #2 A	Soil	08/10/22 09:10	08/11/22 10:30
680-219577-4	Tank #2 B	Soil	08/10/22 09:15	08/11/22 10:30

Case Narrative

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Job ID: 680-219577-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-219577-1

Receipt
The samples were received on 8/11/2022 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Client Sample ID: Tank #1 A
Date Collected: 08/10/22 09:00
Date Received: 08/11/22 10:30

Lab Sample ID: 680-219577-1
Matrix: Soil
Percent Solids: 96.1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		12.0	3.00	mg/Kg	☼	08/12/22 08:54	08/13/22 18:58	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*77*		*70 - 131*	*08/12/22 08:54*	*08/13/22 18:58*	*100*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		8.10	2.63	mg/Kg	☼	08/15/22 13:10	08/16/22 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*15 - 139*	*08/15/22 13:10*	*08/16/22 13:56*	*1*

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Client Sample ID: Tank #1 B
Date Collected: 08/10/22 09:05
Date Received: 08/11/22 10:30

Lab Sample ID: 680-219577-2
Matrix: Soil
Percent Solids: 96.0

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		11.4	2.86	mg/Kg	☼	08/12/22 08:54	08/13/22 19:20	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*80*		*70 - 131*	*08/12/22 08:54*	*08/13/22 19:20*	*100*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		8.25	2.68	mg/Kg	☼	08/15/22 13:10	08/16/22 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*15 - 139*	*08/15/22 13:10*	*08/16/22 14:12*	*1*

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Client Sample ID: Tank #2 A
Date Collected: 08/10/22 09:10
Date Received: 08/11/22 10:30

Lab Sample ID: 680-219577-3
Matrix: Soil
Percent Solids: 97.8

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		11.6	2.89	mg/Kg	☼	08/12/22 08:54	08/13/22 19:41	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*79*		*70 - 131*	*08/12/22 08:54*	*08/13/22 19:41*	*100*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		7.95	2.58	mg/Kg	☼	08/15/22 13:10	08/16/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*15 - 139*	*08/15/22 13:10*	*08/16/22 14:28*	*1*

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Client Sample ID: Tank #2 B
Date Collected: 08/10/22 09:15
Date Received: 08/11/22 10:30

Lab Sample ID: 680-219577-4
Matrix: Soil
Percent Solids: 95.2

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		11.3	2.81	mg/Kg	☼	08/12/22 08:54	08/13/22 20:03	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*81*		*70 - 131*	*08/12/22 08:54*	*08/13/22 20:03*	*100*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		8.21	2.67	mg/Kg	☼	08/15/22 13:10	08/16/22 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*15 - 139*	*08/15/22 13:10*	*08/16/22 14:43*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 680-735713/7
Matrix: Solid
Analysis Batch: 735713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		10.0	2.50	mg/Kg			08/13/22 18:36	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*79*		*70 - 131*		*08/13/22 18:36*	*100*

Lab Sample ID: LCS 680-735713/5
Matrix: Solid
Analysis Batch: 735713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C6-C10			50.0	54.37		mg/Kg		109	64 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*70 - 131*

Lab Sample ID: LCSD 680-735713/6
Matrix: Solid
Analysis Batch: 735713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C6-C10			50.0	53.98		mg/Kg		108	64 - 133	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*106*		*70 - 131*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 680-735805/5-A
Matrix: Solid
Analysis Batch: 736066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 735805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		7.91	2.57	mg/Kg		08/15/22 13:10	08/16/22 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*15 - 139*	*08/15/22 13:10*	*08/16/22 13:25*	*1*

Lab Sample ID: LCS 680-735805/6-A
Matrix: Solid
Analysis Batch: 736066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 735805

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28			33.1	30.63		mg/Kg		93	26 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*106*		*15 - 139*

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 680-219577-1 MS
Matrix: Soil
Analysis Batch: 736066

Client Sample ID: Tank #1 A
Prep Type: Total/NA
Prep Batch: 735805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	ND		34.3	31.71		mg/Kg	☼	93	26 - 133		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*103*		*15 - 139*

Lab Sample ID: 680-219577-1 MSD
Matrix: Soil
Analysis Batch: 736066

Client Sample ID: Tank #1 A
Prep Type: Total/NA
Prep Batch: 735805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	ND		33.8	30.15		mg/Kg	☼	89	26 - 133	5	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*102*		*15 - 139*

QC Association Summary

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

GC VOA

Prep Batch: 735519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-219577-1	Tank #1 A	Total/NA	Soil	5035A	
680-219577-2	Tank #1 B	Total/NA	Soil	5035A	
680-219577-3	Tank #2 A	Total/NA	Soil	5035A	
680-219577-4	Tank #2 B	Total/NA	Soil	5035A	

Analysis Batch: 735713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-219577-1	Tank #1 A	Total/NA	Soil	8015D	735519
680-219577-2	Tank #1 B	Total/NA	Soil	8015D	735519
680-219577-3	Tank #2 A	Total/NA	Soil	8015D	735519
680-219577-4	Tank #2 B	Total/NA	Soil	8015D	735519
MB 680-735713/7	Method Blank	Total/NA	Solid	8015D	
LCS 680-735713/5	Lab Control Sample	Total/NA	Solid	8015D	
LCSD 680-735713/6	Lab Control Sample Dup	Total/NA	Solid	8015D	

GC Semi VOA

Prep Batch: 735805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-219577-1	Tank #1 A	Total/NA	Soil	3546	
680-219577-2	Tank #1 B	Total/NA	Soil	3546	
680-219577-3	Tank #2 A	Total/NA	Soil	3546	
680-219577-4	Tank #2 B	Total/NA	Soil	3546	
MB 680-735805/5-A	Method Blank	Total/NA	Solid	3546	
LCS 680-735805/6-A	Lab Control Sample	Total/NA	Solid	3546	
680-219577-1 MS	Tank #1 A	Total/NA	Soil	3546	
680-219577-1 MSD	Tank #1 A	Total/NA	Soil	3546	

Analysis Batch: 736066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-219577-1	Tank #1 A	Total/NA	Soil	8015D	735805
680-219577-2	Tank #1 B	Total/NA	Soil	8015D	735805
680-219577-3	Tank #2 A	Total/NA	Soil	8015D	735805
680-219577-4	Tank #2 B	Total/NA	Soil	8015D	735805
MB 680-735805/5-A	Method Blank	Total/NA	Solid	8015D	735805
LCS 680-735805/6-A	Lab Control Sample	Total/NA	Solid	8015D	735805
680-219577-1 MS	Tank #1 A	Total/NA	Soil	8015D	735805
680-219577-1 MSD	Tank #1 A	Total/NA	Soil	8015D	735805

General Chemistry

Analysis Batch: 735878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-219577-1	Tank #1 A	Total/NA	Soil	Moisture	
680-219577-2	Tank #1 B	Total/NA	Soil	Moisture	
680-219577-3	Tank #2 A	Total/NA	Soil	Moisture	
680-219577-4	Tank #2 B	Total/NA	Soil	Moisture	

Lab Chronicle

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Client Sample ID: Tank #1 A
Lab Sample ID: 680-219577-1
Date Collected: 08/10/22 09:00
Matrix: Soil
Date Received: 08/11/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			735878	08/15/22 13:23	WRB	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: Tank #1 A
Lab Sample ID: 680-219577-1
Date Collected: 08/10/22 09:00
Matrix: Soil
Date Received: 08/11/22 10:30
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.49 g	5 mL	735519	08/12/22 08:54	FES	EET SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	735713	08/13/22 18:58	DBM	EET SAV
	Instrument ID: CVGWFID1									
Total/NA	Prep	3546			30.84 g	1 mL	735805	08/15/22 13:10	MEW	EET SAV
Total/NA	Analysis	8015D		1			736066	08/16/22 13:56	JCK	EET SAV
	Instrument ID: CSGAB1									

Client Sample ID: Tank #1 B
Lab Sample ID: 680-219577-2
Date Collected: 08/10/22 09:05
Matrix: Soil
Date Received: 08/11/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			735878	08/15/22 13:23	WRB	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: Tank #1 B
Lab Sample ID: 680-219577-2
Date Collected: 08/10/22 09:05
Matrix: Soil
Date Received: 08/11/22 10:30
Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.728 g	5 mL	735519	08/12/22 08:54	FES	EET SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	735713	08/13/22 19:20	DBM	EET SAV
	Instrument ID: CVGWFID1									
Total/NA	Prep	3546			30.31 g	1 mL	735805	08/15/22 13:10	MEW	EET SAV
Total/NA	Analysis	8015D		1			736066	08/16/22 14:12	JCK	EET SAV
	Instrument ID: CSGAB1									

Client Sample ID: Tank #2 A
Lab Sample ID: 680-219577-3
Date Collected: 08/10/22 09:10
Matrix: Soil
Date Received: 08/11/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			735878	08/15/22 13:23	WRB	EET SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: S&ME, Inc.
Job ID: 680-219577-1
Project/Site: NC DOT - West End

Client Sample ID: Tank #2 A
Lab Sample ID: 680-219577-3
Date Collected: 08/10/22 09:10
Matrix: Soil
Date Received: 08/11/22 10:30
Percent Solids: 97.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.503 g	5 mL	735519	08/12/22 08:54	FES	EET SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	735713	08/13/22 19:41	DBM	EET SAV
	Instrument ID: CVGWFID1									
Total/NA	Prep	3546			30.86 g	1 mL	735805	08/15/22 13:10	MEW	EET SAV
Total/NA	Analysis	8015D		1			736066	08/16/22 14:28	JCK	EET SAV
	Instrument ID: CSGAB1									

Client Sample ID: Tank #2 B
Lab Sample ID: 680-219577-4
Date Collected: 08/10/22 09:15
Matrix: Soil
Date Received: 08/11/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			735878	08/15/22 13:23	WRB	EET SAV
	Instrument ID: NOEQUIP									

Client Sample ID: Tank #2 B
Lab Sample ID: 680-219577-4
Date Collected: 08/10/22 09:15
Matrix: Soil
Date Received: 08/11/22 10:30
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.888 g	5 mL	735519	08/12/22 08:54	FES	EET SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	735713	08/13/22 20:03	DBM	EET SAV
	Instrument ID: CVGWFID1									
Total/NA	Prep	3546			30.71 g	1 mL	735805	08/15/22 13:10	MEW	EET SAV
Total/NA	Analysis	8015D		1			736066	08/16/22 14:43	JCK	EET SAV
	Instrument ID: CSGAB1									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: S&ME, Inc.
Project/Site: NC DOT - West End

Job ID: 680-219577-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	41450	06-30-23
Alaska (UST)	State	17-016	09-22-22
ANAB	Dept. of Defense ELAP	L2463	09-18-22
ANAB	ISO/IEC 17025	L2463.01	09-22-22
Arkansas DEQ	State	19-015-0	02-01-23
California	State	2939	06-30-22 *
Connecticut	State	PH-0161	03-31-23
Florida	NELAP	E87052	07-30-23
Georgia	State	E87052	06-30-23
Georgia (DW)	State	803	06-30-23
Guam	State	19-007R	04-17-23
Hawaii	State	<cert No.>	06-30-23
Illinois	NELAP	200022	11-30-22
Indiana	State	C-GA-02	06-30-23
Iowa	State	353	07-01-23
Kentucky (UST)	State	NA	06-30-23
Louisiana	NELAP	30690	06-30-23
Louisiana (DW)	State	LA009	12-31-22
Maine	State	GA00006	09-25-22
Maryland	State	250	12-31-22
Massachusetts	State	M-GA006	07-30-23
Michigan	State	9925	06-30-23
Mississippi	State	<cert No.>	06-30-23
Nebraska	State	NE-OS-7-04	06-30-23
New Jersey	NELAP	GA769	06-30-23
New Mexico	State	GA00006	06-30-23
New York	NELAP	10842	04-01-23
North Carolina (DW)	State	13701	07-31-23
North Carolina (WW/SW)	State	269	12-31-22
Pennsylvania	NELAP	68-00474	06-30-23
Puerto Rico	State	GA00006	01-01-23
South Carolina	State	98001	06-30-22 *
Tennessee	State	TN02961	06-30-23
Texas	NELAP	T1047004185-19-14	11-30-22
Texas	TCEQ Water Supply	T104704185	06-30-23
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-23
Wisconsin	State	999819810	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: S&ME, Inc.
Job ID: 680-219577-1
Project/Site: NC DOT - West End

Method	Method Description	Protocol	Laboratory
8015D	Gasoline Range Organics (GRO) (GC)	SW846	EET SAV
8015D	Diesel Range Organics (DRO) (GC)	SW846	EET SAV
Moisture	Percent Moisture	EPA	EET SAV
3546	Microwave Extraction	SW846	EET SAV
5035A	Closed System Purge & Trap/Field Methanol	SW846	EET SAV

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins

Client Information	Sampler: Jamie T. Honeycutt	Lab PM: Andros, John	Carrier Tracking No(s):	COC No: 680-138159-50351.2
Client Contact: Michael Pfeifer	Phone: 910 977-7614	E-Mail: John.Andros@et.eurofinsus.com	State of Origin: NC	Page:
Company: S&ME, Inc.	PWSID:			Job #:
Address: 3201 Spring Forest Road	Due Date Requested:			
City: Raleigh	TAT Requested (days):			
State, Zip: NC, 27616	Compliance Project: Δ Yes Δ No			
Phone: 919 872-2660	PO #: 212201E			
Email: mpfeifer@smeinc.com	WO #:			
Project Name: NCDOT - West End	Eurofins' Project #: 68026986			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_GRO - Gasoline Range Organics (GRO) (GC)	8015D_DRO - Diesel Range Organics	MAEPH - NC-FL EPH	MAVPH - NC-FL VPH	8260D - VOC NC 02L List	8270E - SVOC TCL OLM4.2	8270E_SIM - PAH Routine (WATER)	SM6200_B - Routine SM6200B (WATER)	Total Number of containers	Special Instructions/Note.
			Preservation Code:				F	N	N	F	N	N	N	A		
- Tank #1 A	8/10/22	0900	G	Solid			✓	✓								
- Tank #1 B	↓	0905	↓	~~Water~~ ↓			✓	✓								
- Tank #2 A		0910					✓	✓								
Tank #2 B	↓	0915	↓	↓			✓	✓								

680-219577 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	James T Honeycutt	8/10/22 1330	S&ME		8-11-22 1030	FE
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:
		5.1/5.0

Ver 01/16/2019

8/16/2022

Login Sample Receipt Checklist

Client: S&ME, Inc.

Job Number: 680-219577-1

Login Number: 219577

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

October 9, 2017

MEMORANDUM TO: Brian F. Yamamoto, PE
Project Manager
Central Project Delivery Team -- Divisions 5 & 8

FROM: Dennis G. Li, PhD, LG
GeoEnvironmental Project Manager
GeoEnvironmental Section
Geotechnical Engineering Unit

DocuSigned by:
Dennis Li
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10/10/2017

TIP NO: R-5726
WBS: 50218.1.1
COUNTY: Moore
DIVISION 8
DESCRIPTION: Widening of NC 211 from NC 73 in West End to Holly Grove School Road in Seven Lakes, Moore County

SUBJECT: **GeoEnvironmental Planning Report**

The GeoEnvironmental Section of the Geotechnical Engineering Unit performed a Phase I field investigation on August 22, 2017 for the above referenced project to identify geoenvironmental sites of concern. The purpose of this report is to document sites of concern within the project study area that are or may be contaminated. These sites of concern should be included in the environmental planning document in an effort to assist the project stakeholders in reducing or avoiding impacts to these sites. Sites of concern may include, but are not limited to, underground storage tank (UST) sites, dry cleaning facilities, hazardous waste sites, regulated landfills and unregulated dumpsites.

Findings

Twelve (12) sites of concern were identified within the proposed study area. We anticipate low monetary and scheduling impacts resulting from these sites. See the following table and figure for details.

Please note that discovery of additional sites not recorded by regulatory agencies and not reasonably discernible during the project reconnaissance may occur. The GeoEnvironmental Section should be notified immediately after discovery of such sites so their potential impact(s) may be assessed.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING UNIT
1589 MAIL SERVICE CENTER
RALEIGH NC 27699-1589

Telephone: 919-707-6850
Fax: 919-250-4237
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC

If there are questions regarding the geoenvironmental issues, please contact me, at 919-707-6857.

cc:
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File

Sites of Concern

1) **Property Name:**
Mac's Food Store 5
5461 NC 211
West End, NC 27376

Facility ID #: 00-0-0000020670
Incident #: N/A

Property Owner:
MC, B, MC, LLC
PO Box 396
Aberdeen, NC 28315

UST Owner: McNeill Oil Co, Inc.
PO Box 396
Aberdeen, NC 28315

This gas station and convenience store is located on the eastern side of the intersection of NC 211 and NC 73 W in West End. According to the UST Section Registry there are three (3) tanks currently in use, located on the south side of the fuel canopy. According to the NCDEQ website there are no incidents associated with this location. There were no monitoring wells reported at this location. **This site is anticipated to present low geoenvironmental impacts to the project.**

2) **Property Name:**
Old Stanley Furniture Plant
5364 NC 211
West End, NC 27376

Property Owner(s):
Parcels 00020452 & 00020261:
JR Square, LLC
PO Box 1146
West End, NC 27376

Parcel 20140157:
5364 Highway 211, LLC
4030 Wake Forest Rd
Raleigh, NC 27609

Facility ID(s) #: 00-0-0000020439 &
0-00-0000020415
Incident #(s):
29880
29986 (NCDOT)

UST Owner(s):
Stanley Interiors Corp.
5364 NC 211
West End, NC 27376 (10 tanks)

Huffman Oil Co. of Candor, Inc.
Bus. Hwy 220 S. Box 699
Candor, NC 27229 (1 large tank)

This is an old furniture manufacturing plant. The main building is located on the western side of NC 211 (site 2a), north of NC 73 W. There is a parking lot with a large above-ground storage tank associated with the plant on the opposite side of NC 211 from the plant building (site 2b). This site reportedly had 11 USTs on site, two of which were removed in 1971 (NCDOT project file R-2812 Parcel 199), and the other nine were removed in 1992 (). This location is associated with two UST incidents, #29880, closed in 2002, and #29986. There were unknown number of tanks and potential hazardous material remain in the site. **This site is anticipated to present medium to high GeoEnvironmental impacts to the project.**

3) **Property Name:**
Vacant Lot (Former Shell Station)
5375 NC 211
West End, NC 27376

Property Owner:
West End United Methodist Church
PO Box 276
West End, NC 27376

Facility ID #: Not Listed
Incident #: N/A

UST Owner: Not Listed

This vacant lot is reportedly the location of a former Shell gas station, according to locals. It is located on the eastern side of NC 211, directly south of the white auto shop (site 4). **This site is anticipated to present low geoenvironmental impacts to the project.**

4) **Property Name:**
"White Auto Shop"
5365 NC 211
West End, NC 27376

Property Owner:
Mark Earl Karshner and Clayton Earl Karshner
PO Box 333
West End, NC 27376

Facility ID #: N/A
Incident #: N/A

UST Owner: McNeill Oil Co, Inc.
PO Box 396
Aberdeen, NC 28315

This automotive garage is located on the eastern side of NC 211 in West End, directly across the street from the old Stanley Furniture plant. According to the Moore County GIS site, this location was once a Shell gas station. **This site is anticipated to present low geoenvironmental impacts to the project.**

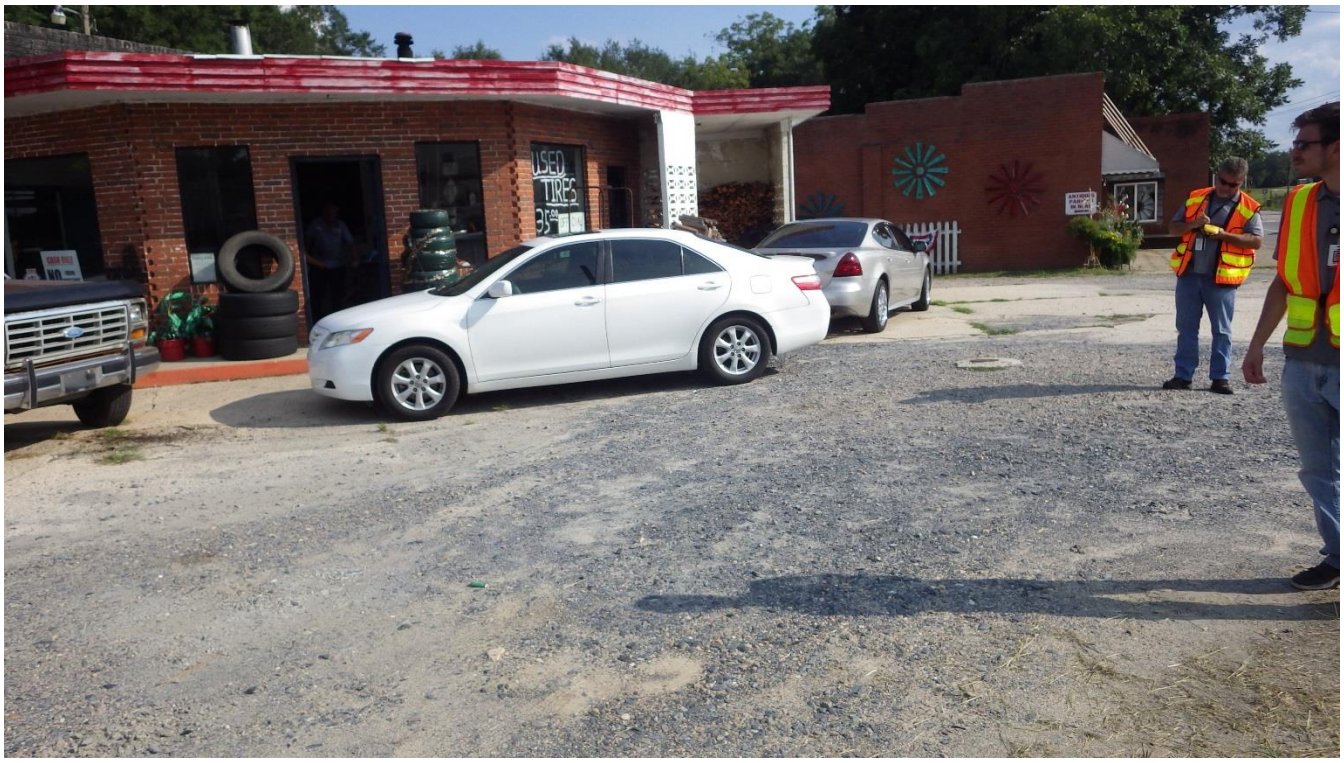
5) **Property Name:**
Cagle's Auto Repair
5349 NC 211
West End, NC 27376

Property Owner:
McNeill Oil Co, Inc.
PO Box 396
Aberdeen, NC 28315

Facility ID(s) #:
00-0-0000020664
00-0-0000029510 (NCDEQ)

UST Owner: McNeill Oil Co, Inc.
PO Box 396
Aberdeen, NC 28315

Incident #: 11631



This auto garage and used tire shop is located on the southeastern quadrant of the intersection of NC 211 and NC 73/Mode Road in West End. This shop was once Cagle Exxon, which was the location of incident #11631, closed out 1995. This location was home to five fuel USTs. All five tanks were closed in 1993. There are monitoring wells were observed to be present in the site during the site visit. **This site is anticipated to present low geoenvironmental impacts to the project.**

6) **Property Name:**
Vacant Lot
(Former Tucker's Service Station)
5337 NC 211
West End, NC 27376
Facility ID #: 00-0-0000020670
Incident #(s): 29744, 29788

Property Owner:
Best Offer, LLC
960 Foxfire Rd
Aberdeen, NC 28315

UST Owner: N/A

This vacant lot was the location of Tucker's Service Station, and is located on the northeast quadrant of the intersection of NC 211 and NC 73/Mode Road in West End. This site is the location of two UST incidents, #29744 and #29788. Incident #29788 is associated with state project M-0376, the removal of three orphan USTs in 2012 (Division 8 Safety Improvement Project:\\dot\dfsroot01\borelogs\GeoEnvironmental\Non-TIP Projects\62_Hwy 211 West End_UST). **This site is anticipated to present low geoenvironmental impacts to the project.**

7) **Property Name:**
"White Garage with Red Roof" (Vacant building)
5114 NC 211
West End, NC 27376
Facility ID #: N/A
Incident #: N/A

Property Owner:
Susan McCaskill Morgan and Others
2511 Scalybark Rd
Statesville, NC 28625

UST Owner: N/A

This site appears to be an abandoned/former gas station and auto garage and it is located on the western side of NC 211 in West End, about 300 feet south of Knox Lane. There is an old pump island on the front side of the building with possible fuel lines still sticking up out of the ground. The UST registry and tanks database do not have records at this location. **This site is anticipated to present low geoenvironmental impacts to the project.**

8) **Property Name:**
Seven Lakes Hardware / GreeneBow's Southern Cuisine
4379 NC 211
West End, NC 27376
Facility ID #: N/A
Incident #: N/A

Property Owner:
John C. Garner and Joann M. Garner
PO Box 86
West End, NC 27376

UST Owner: N/A

This small strip mall is the location of GreeneBow's Southern Cuisine and Seven Lakes Hardware, and is located on the eastern side of NC 211 in West End, about 400 feet southeast of the intersection of NC 211 and Seven Lakes Drive. There no record was found for this site in NCDEQ registry USTs database. The pavement in the parking lot, however, is patched up in many locations, indicating there may have been tanks removed in the past. There are no incidents associated with this location. **This site is anticipated to present low geoenvironmental impacts to the project.**

9)

Property Name:
Fast Shoppe 29
4331 Seven Lakes Drive
West End, NC 27376

Facility ID #: 00-0-0000020850
Incident #: 29042

Property Owner:
Brian K Neal and Karen P Neal
1007 Arsenal Ave
Fayetteville, NC 28305

UST Owner: Li'l Thrift Food Marts, Inc.
1007 Arsenal Ave
Fayetteville, NC 28305

This gas station and convenience store is located on the southeastern quadrant of NC 211 and Seven Lakes Drive in West End. According to the UST Section Registry there are three (3) tanks currently in use, and they are located on the north side of the fuel canopy. This site is the location of UST incident #29042, closed out 2012. **This site is anticipated to present low geoenvironmental impacts to the project.**

10) **Property Name:**
Seven Lakes Friendly Mart, Inc.
4219 NC 211
West End, NC 27376

Property Owner:
C. S. Davis, Jr, Moore County, LLC and
J. B. Davis, Moore County, LLC

Facility ID #: 00-0-0000023256
Incident #: N/A

UST Owner: C. S. Davis Jr. Moore County, LLC
3959 NC 200
Concord, NC 28025

This gas station and convenience store is located on the eastern side of the NC 211 in West End, about 1,100 feet northwest of the intersection with Seven Lakes Drive. According to the UST Section Registry there are five (5) tanks currently in use on the site, and they are located on the northwestern side of the fuel canopy. According to NCDEQ's website, there are no UST incidents associated with this location. **This site is anticipated to present low geoenvironmental impacts to the project.**

11) **Property Name:**
"The Garden of Eatin'"
4039 NC 211
West End, NC 27376

Property Owner:
Norris Randall Jessup and Kathy T. Jessup
6633 Brush Creek Rd
Bennett, NC 27208

Facility ID #: N/A
Incident #: N/A

UST Owner: N/A

This abandoned restaurant is located on the northern/eastern side of NC 211 in West End, roughly 300 feet east-southeast of the intersection with Dead Man Curve Road Westbound. This site is closed off with a fence, so a closer inspection of the site was not possible. The NCDEQ's website show no record of USTs at this location. **This site is anticipated to present low geoenvironmental impacts to the project.**

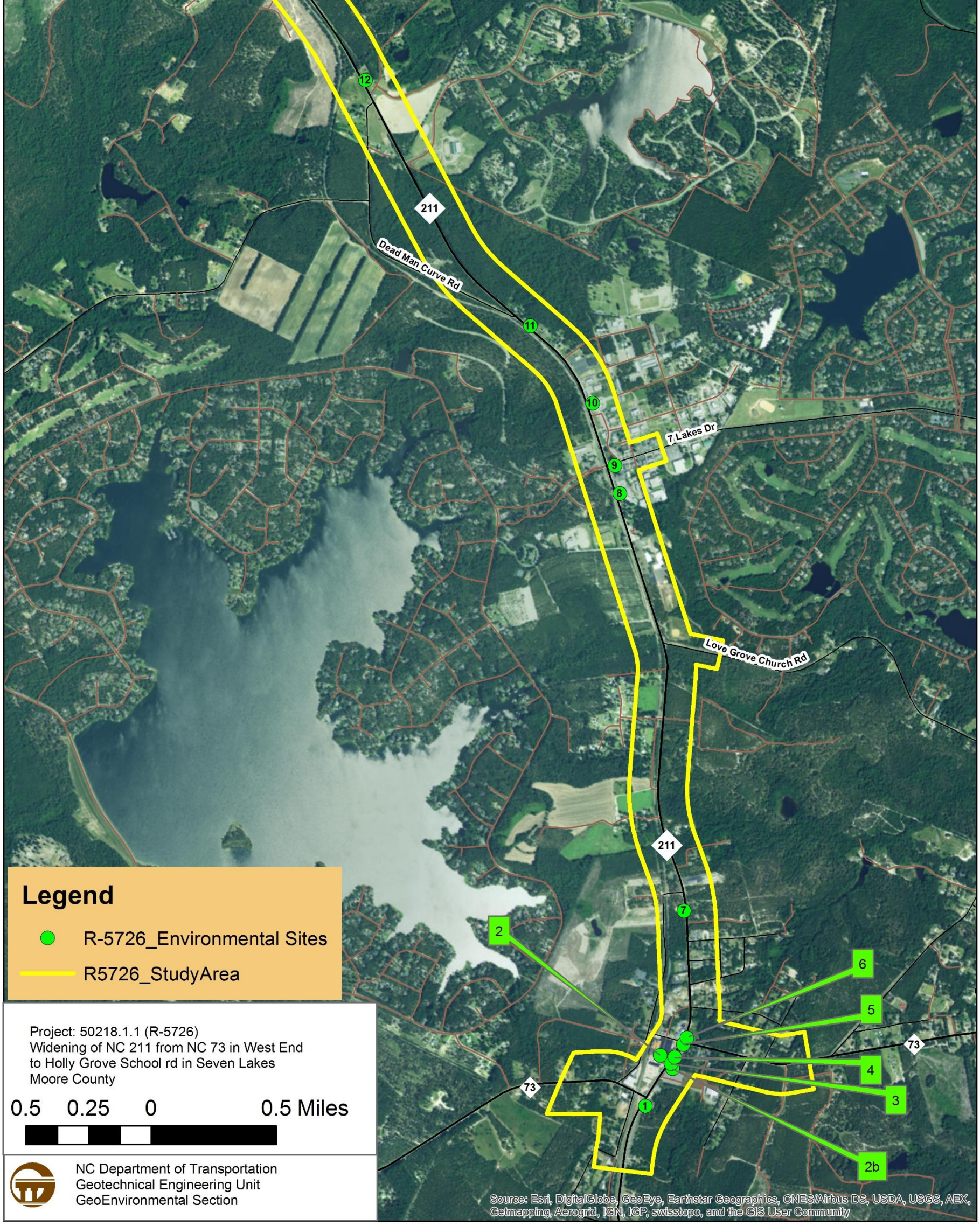
12) **Property Name:**
"Old White Gas Station"
3525 NC 211
Seven Lakes, NC 27376

Property Owner:
John William Carter III and Lee Paisley
PO Box 172
Eagle Springs, NC 27242

Facility ID #: Not Listed
Incident #: N/A

UST Owner: Not Listed

Based the remnant features of the UST dispensing system, this site appears to be an abandoned gas station and it is located on the northern/eastern side of NC 211, approximately 450 feet northwest of the intersection with Dead Man Curve Road Eastbound. The NCDEQ's website show no record of USTs at this location, however an old pump island is visible on the southeastern side of the building. **This site is anticipated to present low geoenvironmental impacts to the project.**


12
211
Dead Man Curve Rd
11
10
7 Lakes Dr
9
8
Love Grove Church Rd
211
7
2
6
5
4
3
2b
73
73
1
Legend
R-5726_Environmental Sites
R5726_StudyArea
Project: 50218.1.1 (R-5726)
Widening of NC 211 from NC 73 in West End
to Holly Grove School rd in Seven Lakes
Moore County
0.5 0.25 0 0.5 Miles
NC Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community