PRELIMINARY SITE ASSESSMENT

US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO
MULTI-LANES SOUTH OF WILLIAMSTON – PARCEL NO. NA
10052 US 17 HWY N
WASHINGTON, BEAUFORT COUNTY, NORTH CAROLINA

NCDOT WBS ELEMENT 35494.1.1
STATE PROJECT R-2511

June 18, 2018

Prepared for:

Mr. Gordon Box, P.G.
North Carolina Department of Transportation
Geotechnical Engineering Unit
1592 Mail Service Center
Raleigh, North Carolina 27699

Prepared by:

ECS Southeast, LLP
9001 Glenwood Avenue
Raleigh, North Carolina 27617

ECS Project No. 49:6617

ECS SOUTHEAST, LLP
"Setting the Standard for Service"
Geotechnical • Construction Materials • Environmental • Facilities
NC Registered Engineering Firm F-1078
NC Registered Geologists Firm C-406
SC Registered Engineering Firm 3250

June 18, 2018

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North Carolina Department of Transportation
Geotechnical Engineering Unit
1592 Mail Service Center
Raleigh, NC 27699

Reference: Preliminary Site Assessment
State Project: R-2511
WBS Element: 35494.1.1
Parcel # NA
10052 US 17 HWY N
Washington, Beaufort County, North Carolina 27889
ECS Project 49:6617

Dear Mr. Box:

Please find enclosed a report summarizing the sampling activities for the preliminary site assessment conducted at the referenced site. This report summarizes our field activities, results, laboratory report, conclusions, and recommendations.

Should questions arise or additional information be required, please contact the undersigned.

Sincerely,

ECS SOUTHEAST, LLP

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PRELIMINARY SITE ASSESSMENT

Site Name and Location:	US 17 from Washington BYP North of NC 171 to Multi-Lanes South of Williamston 10052 US 17 HWY N Washington, Beaufort County, North Carolina
Property Owner	Mary Williams 208 Buckingham Drive Winterville, North Carolina 28590
NCDOT Project No.:	NCDOT WBS Element 35494.1.1 State Project R-2511
Date of Report:	June 18, 2018
Consultant:	ECS Southeast, LLP 6714 Netherlands Drive Wilmington, North Carolina 28405 Attn: Mr. John Lair, P.G. Phone: 910-726-3075

Seal and Signature of Certifying Licensed Geologist

I, John S. Lair, P.G., a Licensed Geologist for ECS Southeast, LLP, do certify that the information contained in this report is correct and accurate to the best of my knowledge.

DocuSigned by:
BB5407050A5D45B...

NORTH CAROLINA LICENSED SEAL 2075 GEOLOGIST JOHN SPENCER LAIR

6/18/2018

John S. Lair, P.G.
NC License No. 2075

not considered Final unless all signatures are completed

ECS Southeast, LLP is permitted to practice geology | engineering in North Carolina. The certification number of the corporation is C-406.

TABLE OF CONTENTS

1.0 INTRODUCTION

ECS Southeast, LLP (ECS) has prepared this Preliminary Site Assessment (PSA) report which documents assessment activities performed within the proposed right-of-way and easement up to the edge of the pavement of 10052 US 17 Highway N, Washington, Beaufort County, North Carolina (Figure 1). Approximately 80 ft of the parcel adjacent to the US 17 is documented to be current NCDOT Right of Way. This assessment was conducted on behalf of the North Carolina Department of Transportation (NCDOT) in accordance with ECS Proposal 49:7825-P dated December 20, 2017.

The NCDOT is proposing to widen US-17 Highway from Washington BYP North of NC 171 to multi-lane south of Williamston (State Project: R-2511, WBS Element: 35494.1.1). The proposed right-of-way is located along the western side of 10052 US 17 Highway (Figure 2). There is concern that contaminated soils could be encountered during the construction activities at this site. The purpose of this assessment was to determine the presence or absence of impacted soil at the subject property in proposed construction areas related to the construction of the widening of US 17 Highway.

1.1 Site Description & Site Reconnaissance Findings

The proposed right-of-way is located along the western side of the property owned by Mary Williams. At the time of our site reconnaissance in December 2017 and April 2018, this parcel was unoccupied by tenants.

During the site reconnaissance on December 7, 2017, ECS spoke with a neighbor, who resided approximately 500 ft. north of East Beargrass Road (NC 1420) along the eastern side of US 17. The neighbor indicated that he believed that there were possibly two lifts and a sand filled “pit” in the garage. ECS observed fill pipes on the northern portion of the building, no visible signs of underground storage tank (UST) fill ports were observed. The neighbor did not believe that the USTs had been removed. A dispenser island with two pump locations were observed on the west side of the building following US 17 Highway. An aboveground storage tank (AST) with unknown contents and a propane AST were observed adjacent to the residence near the detached garage.

During the site reconnaissance on April 20, 2018, ECS met with the property owner, Ms. Mary Williams, and determined the following information regarding the multiple buildings on this parcel: a northernmost residential building with a detached garage, an inactive water supply well contained in a locked pump house (located in the rear yard of the garage facility) and a southernmost former automotive service facility with two bay doors combined with the former gasoline retail station with a pump island where two former fuel dispenser were previously removed. ECS utilized a metal detector and located the fill port for the UST system. No monitoring wells or observation wells were identified. Ms. Williams informed ECS that the inactive water supply well once supplied potable water to the residence and the garage facility. Additionally, she was uncertain of the location, last use, or last contents of the USTs.

Ms. Williams was able to open the one of two bay doors to the former automotive service station and revealed a step-down service pit filled with sand. Because of the overlaying sand, ECS was unable to observe the base of the pit. ECS utilized a probe rod and determined that the structure likely contained a concrete base but could not observe the bottom to determine if a floor drain was present. It was not feasible to mobilize a drill rig into the confined garage space; therefore, samples were not collected from this area. ECS did not observe evidence of a hydraulic lift. Approximate AST and UST locations are depicted on Figure 2. Site photographs are shown in Appendix A.

1.2 Site Location

The subject site is located at 10052 US 17 Highway, Washington, Beaufort County, North Carolina (Figures 1 and 2). The site is directly east of US 17 Highway.

1.3 NCDEQ File Review

ECS reviewed the North Carolina Department of Environment Quality (NCDEQ) underground storage tank (UST) database via the NCDEQ Laserfiche WebLink and Underground Storage Tank Incidents Map regarding the subject site on May 14, 2018. No information related to the USTs or ASTs at the subject site was identified during our review.

2.0 SITE ASSESSMENT

2.1 Geophysical Investigation

ESP Associates, Inc. (ESP) conducted a geophysical investigation on the west side and rear of the former gas station and residence at 10052 US 17 Highway N., Washington, North Carolina on April 3, 2018 and April 25, 2018.

ESP utilized electromagnetic (EM) induction technology and ground penetrating radar (GPR) to identify potential geophysical anomalies and potential USTs at the site. A more detailed description of their scope of work is explained in their Report on Geophysical Services included in Appendix B.

2.2 Soil Sampling

Prior to implementing the field activities, ECS contacted North Carolina One Call to locate/mark public utilities at the site. Required separation distances between subsurface activities and marked utilities (typically 30-inches) were maintained during the field activities.

To determine if contaminated soil may be encountered during the proposed construction activities in the vicinity of the NCDOT right of way and easement, soil samples were collected along the western side of the property. ECS personnel and Quantex, a North Carolina Licensed Well Operator, met at the property on April 20, 2018. Fifteen (15) soil borings were drilled by a Geoprobe® utilizing direct push technology (DPT) to a total depth of 10 feet below the ground surface (bgs) to collect 15 soil samples (SS-1 through SS-15). The approximate location of the borings is shown on Figure 3.

The soil samples were collected by driving a macrocore sampler in 5-foot intervals in each soil boring. Each 5-foot sample sleeve was divided in half and screened for volatile organic compounds in the field using a MiniRae 1000 photoionization detector (PID). In each boring, the soil interval with the highest PID reading was collected for laboratory analysis. If no organic vapors were detected, the driest sample collected from the bottom of the boring was submitted for analysis. The PID identified relative levels of volatile organic compounds (VOCs) in the soil samples collected from four of the borings. Additionally, ECS personnel detected olfactory petroleum odors from the soil samples collected from same four soil borings where elevated relative levels of volatile organic vapors were detected. The PID readings are summarized in Table 1. Copies of the boring logs are included in Appendix C.

Prior to the initial boring and after each subsequent boring, the sampling equipment was decontaminated using a high pressure steam cleaner. The soil samples collected for laboratory analysis were analyzed for total petroleum hydrocarbons (TPH) similar to diesel and gasoline range organic compounds (DRO/GRO) using ultraviolet fluorescence (UVF). Each soil sample was placed into laboratory provided jars, labeled, and maintained on ice until delivered to Red Labs, located in Wilmington, North Carolina, where the samples were analyzed using Ultraviolet Light Fluoresce (UVF). Copies of the COCs are included in Appendix D.

2.3 Groundwater Sampling

Quantex and ECS installed two temporary groundwater monitoring wells (SS-1-TW and SS-9-TW) in the borings associated with soil samples SS-1 and SS-9. Temporary monitoring well SS-1-TW was installed in the northeastern portion of the subject site near the residence approximately 100 feet north of the location of the UST basin and approximately 85 feet west of the ASTs. Temporary monitoring well SS-9-TW was installed in the western portion of the site approximately 5 feet from the UST basin. The locations of the temporary monitoring wells are shown on Figure 3.

The temporary wells were constructed with one-inch diameter Schedule 40 PVC flush-threaded casing and screen. The PVC screen and casing were lowered into the open borehole. A ten-foot length of slotted well screen with machined 0.010-inch slot widths and a threaded bottom plug were installed at the bottom of each 15 foot well. A solid section of PVC casing was placed above the screened interval and extended to a point just above the ground surface. The annular space around each well was filled with a washed and graded, medium sand to approximately two feet above the top of the 10 foot length screen atop 5 feet of riser. Groundwater at the time of sampling was encountered at a depth of 1.32 ft. below top of casing (btoc.) in the temporary monitoring well at the source site of soil sample SS-1 and 1.68 ft btoc. in the temporary monitoring well at the source site of soil sample SS-9, as relatively gauged from the top of casing utilizing a decontaminated water level meter.

Groundwater was purged and sampled subsequent to being pumped to the surface using a peristaltic pump with dedicated disposable polyethylene tubing lowered through the temporary monitoring well casing. Groundwater samples were placed directly into laboratory prepared containers at each sample location.

Groundwater sample containers were labeled with ECS project number, sample identification, sample date and time, and requested analytical analysis. The containers were properly packaged and placed into a cooler with ice to maintain the samples at approximately 4˚ Celsius (C˚). Groundwater samples were submitted for chemical analysis for volatile organic compounds using Standard Method 6200B and 1,2-Dibromoethane (EDB) using EPA method 504.1. Groundwater laboratory analysis was conducted by the NCDOT approved laboratory, Prism Laboratories, located in Charlotte, North Carolina (North Carolina Certification #402). ECS maintained proper COC procedures throughout the sample collection and transportation process. Copies of the COCs are included in Appendix D. Following the completion of the groundwater sampling activities, the borings were properly abandoned.

3.0 RESULTS

3.1 Geophysical Investigation Findings

ESP's results indicate that the GPR and EM investigation identified four (4) anomalies indicative of USTs near the relic pump island (Figure 3). ESP concluded that it is probable that the USTs are each approximately 1,800 gallons in capacity, 5 feet diameter by 12 feet in length and buried about 2.5 feet below the ground surface. Another anomaly was identified in the south western portion of the property; ESP believes that this is a relic site feature or utility feature of the site. ESP outlined the area of the probable USTs using pink marking paint for reference. ESP's report is included in Appendix B.

3.2 Soil Analytical Results

Soil samples were screen in the field using a PID and recorded in a designated field notebook. PID readings can be observed in Table 1. Elevated PID readings were detected in soil samples SS-5 (0.5 parts per million (ppm)), SS-8 (9.4 ppm), SS-9 (27.4 ppm), and SS-10 (120 ppm).

Laboratory analysis detected TPH-GRO in the soil samples collected from soil borings SS-3, SS-4, SS-7, SS-8, SS-9, SS-10, and SS-13. Soil samples exceeded the laboratory reporting limit but did not exceed the NCDEQ State Action Level of 50 milligram per kilogram (mg/kg). Laboratory analysis of soil sample detected SS-10 concentrations of TPH-GRO above the reporting limit and the NCDEQ State Action Level of 50 mg/kg at a concentration of 68.4 mg/kg.

Laboratory analysis detected TPH-DRO in the soil samples collected from soil borings SS-1, SS-3, SS-5, SS-7, SS-8, SS-9, SS-10, SS-12, SS-14, and SS-15. Soil samples exceeded the laboratory reporting limit but did not exceed the NCDEQ State Action Level of 100 mg/kg.

Laboratory results are summarized in Table 1 and on Figure 4. The laboratory report and associated chain-of-custody document are included in Appendix D.

3.3 Groundwater Analytical Results

Laboratory analysis of groundwater sample SS-9-TW detected several VOCs above the North Carolina Administration Code, Title 15A Subchapter 02L Groundwater Standards (NC2LGWQS). Groundwater sample SS-9-TW exhibited concentrations of 1,2,4-Trimethylbenzene, 1,2,5-Trimethylbenzene, benzene, ethylbenzene, isopropylbenzene (cumene), m,p-xylene, naphthalene, n-propylbenzene, o-xylene, toluene, and total xylene above their respective NC2LGWQS but below their respective Gross Contamination Levels (GCLs).

An estimated concentration of acetone was detected above the laboratory reporting limit in the groundwater sample collected from temporary monitoring well SS-1-TW; however, ECS attributes this analyte estimation detection as a laboratory artifact. Laboratory analysis did not report additional targeted analytes at concentrations above laboratory reporting limits in the groundwater sample collected from temporary monitoring well SS-1-TW.

Laboratory results are summarized in Table 2. The laboratory report and associated chain-of-custody document are included in Appendix D.

4.0 CONCLUSIONS

Based on results of the laboratory analysis, geophysical investigation, and field observations, ECS has the following conclusions:

- The NCDEQ regulatory databases reviewed did not identify the subject site with registered USTs/ ASTs or previously documented releases.

- ECS did not observe evidence of a hydraulic lift in the former automotive service facility.

- Four (4) anomalies indicative of USTs were identified in the proposed NCDOT right of way. The contents and last use of the USTs is currently unknown. Soil and groundwater sampling conducted during this preliminary site assessment confirmed that a petroleum release has likely occurred.

- Soil samples were collected at an approximate depth of 4 to 5 feet below grade from fifteen locations at the subject site. Analytical results for soil samples indicate that the detected concentration of TPH-GRO exceeded action levels established by the NCDEQ in one of these fifteen locations. The detected TPH-GRO concentration associated with soil sample SS-10 is 68.4 milligrams per kilogram (mg/kg) and the NCDEQ action level is 50 mg/kg. Analytical results do not indicate exceedances of action levels for soil samples collected at the remaining sample locations.

- Soil sample location SS-10 is bounded to the southwest and northeast by sample locations SS-11 and SS-15, respectively. No soil sample locations are present to the southeast or northwest of the sample location. Therefore, the extent of impacted soil exceeding the indicated action level is undefined in these directions.

- Field observations of soil samples collected during the advancement of soil borings at the site indicated that saturated soil was first encountered at a depth of approximately 7 feet below grade. However, when temporary wells were set in several borings and allowed to stabilize, the water level was noted to be approximately 1.5 feet below grade.

- For estimating the volume of petroleum-impacted soil which exceeds the action level, ECS made the following assumptions:
    - Soil with impacts exceeding the action level extend from sample location SS-10 in a southwesterly to sample location SS-11, a distance of approximately 20 feet and in a northeasterly to sample location SS-15, also a distance of approximately 20 feet.
    - Soil with impacts exceeding the action level extend from sample location SS-10 in other directions at similar distances as that in the southwesterly and northeasterly directions.
    - Soils with impacts exceeding the action level do not extend beyond a depth of 7 feet below grade.
  - Based upon the foregoing assumptions, ECS estimates that less than 50 cubic yards of potentially petroleum-impacted soil which exceed the action level remain at the site. ESC estimates that this volume of saturated soil weighs approximately 80 tons.

- Laboratory analysis reported several VOC's at concentrations above their respective NC2LGWQS but below their respective GCLs in the groundwater samples collected from temporary monitoring well SS-9-TW.

5.0 RECOMMENDATIONS

Based on the results of this preliminary site assessment, ECS recommends the following:

- Based on the laboratory analytical results, which are indicative of a petroleum release, ECS understands that a reporting obligation exists to the NCDEQ and recommends that the NCDOT provide a copy of this report to the NCDEQ Washington Regional Office for their review.

- ECS recommends that the USTs be properly closed.

6.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in projects of this type. Our evaluation of site conditions has been based on our understanding of the site project information and the data obtained during our field activities.

This report was prepared for the express use of NCDOT. Use of this report by any other individual or company implies their acceptance of the General Conditions of Service of the original contract.

TABLES

TABLE 1: SUMMARY OF SOIL ANALYTICAL RESULTS

Preliminary Site Assessment
US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511
WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina
ECS Project No. 49:6617

Parameter																**Comparison Criteria**
Sample ID	**SS-1**	**SS-2**	**SS-3**	**SS-4**	**SS-5**	**SS-6**	**SS-7**	**SS-8**	**SS-9**	**SS-10**	**SS-11**	**SS-12**	**SS-13**	**SS-14**	**SS-15**	**NCDEQ State Action Level**
PID Reading	0.0	0.0	0.0	0.0	0.5	0.0	0.0	9.4	27.4	120.0	0.0	0.0	0.0	0.0	0.0	
Collection Depth (feet bgs)	4-5															
Collection Date	4/20/18															
Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) and TPH Diesel Range Organics (DRO) via Ultraviolet Fluorescence (UVF)																
DRO	0.06	<0.03	1.6	<0.03	11.5	<0.12	0.34	19.8	19.3	79.9	<0.03	0.23	<0.03	0.56	0.69	100
GRO	<0.42	<0.43	2.3	0.45	<0.41	<1.5	0.69	9.9	31.9	**68.4**	<0.43	<0.42	1.1	<0.47	<0.45	50

Notes:
Results presented in milligrams per kilogram (mg/kg), parts per million (ppm)
Feet bgs = Feet below ground surface
NCDEQ = North Carolina Department of Environmental Quality
Bold = Detected above the NCDEQ Action Level

TABLE 2: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Preliminary Site Assessment
US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511
WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina
ECS Project No. 49:6617

Parameter	**ANALYTICAL RESULTS**		**COMPARISION CRITERIA**	
Sample ID	**SS-1-TW**	**SS-9-TW**	**NC2LGWQS (µg/L)**	**GCL (µg/L)**
Collection Date	4/20/18			
Volatile Organic Compounds by GC/MS				
Acetone	6.3 J	<10.0	6000	6000000
1,2,4-Trimethylbenzene	<0.50	**2200 A**	400	28500
1,3,5-Trimethylbenzene	<0.50	**660 A**	400	25000
4-Isopropyltoluene	<0.50	10	25	11700
Benzene	<0.50	**86**	1	5000
Ethylbenzene	<0.50	**2500 A**	600	84500
Isopropyl Ether	<0.50	1	70	70000
Isopropylbenzene (Cumene)	<0.50	**95**	70	25000
m,p-Xylene	<1.0	**8500 A**	500	85500
Naphthalene	<1.0	**360 A**	6	6000
n-Propylbenzene	<0.50	**320 A**	70	30000
o-Xylene	<0.50	**3700 A**	500	85500
sec-Butylbenzene	<0.50	15	70	8500
Styrene	<0.50	85	70	70000
tert-Butylbenzene	<0.50	0.68	70	15000
Toluene	<0.50	**5500 A**	600	260000
Xylenes, Total	<1.5	**12000 A**	500	85500

Notes:

Results presented in micrograms per liter (ug/L), analogous to parts per billion (ppb)

NCDEQ = North Carolina Department of Environmental Quality

GCL = NCDEQ's Gross Contamination Levels for Groundwater as of April 16, 2012

NC2LGWQS = North Carolina Administrative Code, Title 15A Subchapter 02L Groundwater Standards as of April 1, 2013

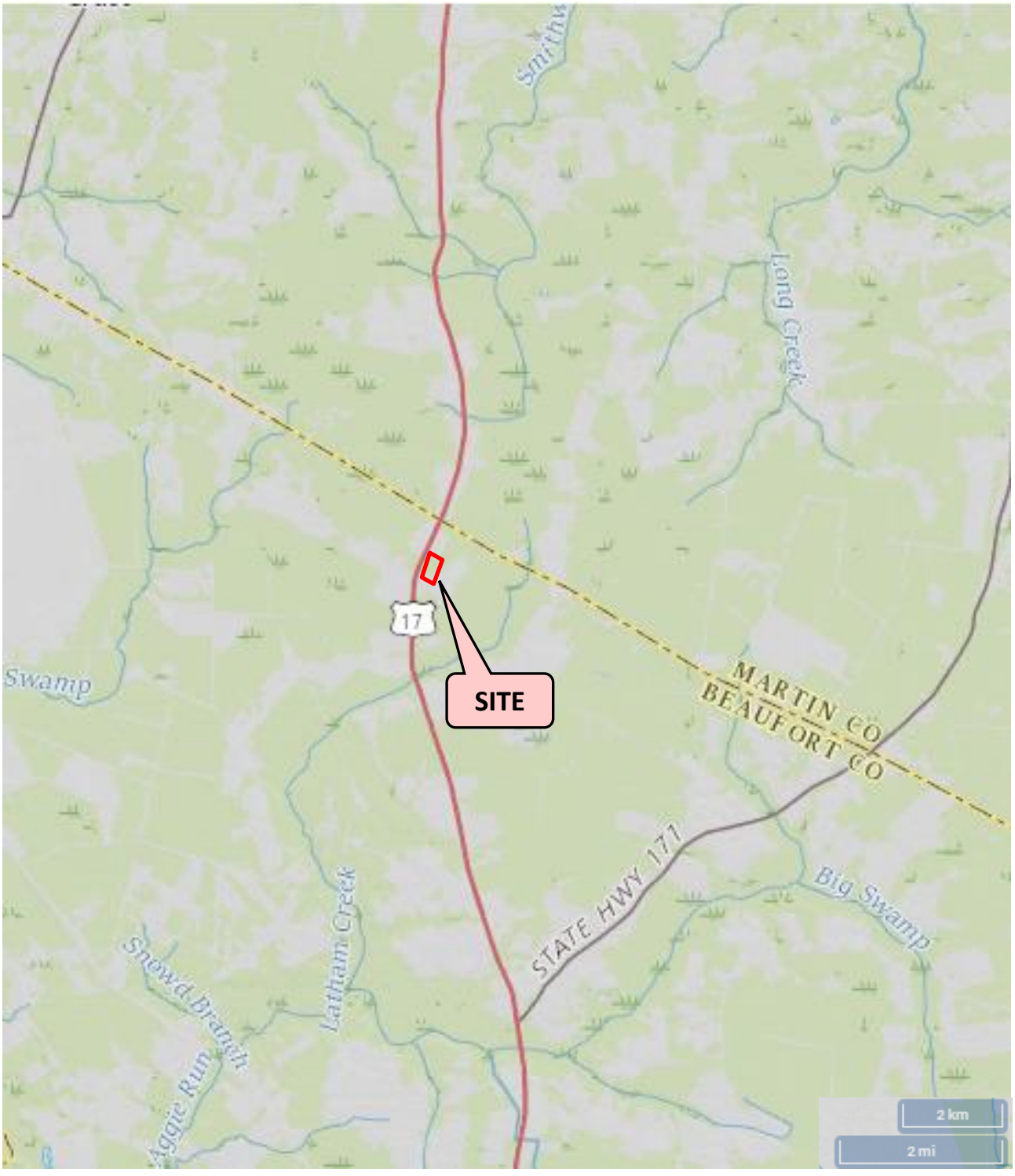
J = Analtye detected below the reporting limit, result is a laboratory estimate.

A = Dilution prefored outside of holding time. Original run within the holding time.

< = analyte is below the reporting limit (RL)

Bold denotes concentration exceeds the NC2LGWQS

FIGURES



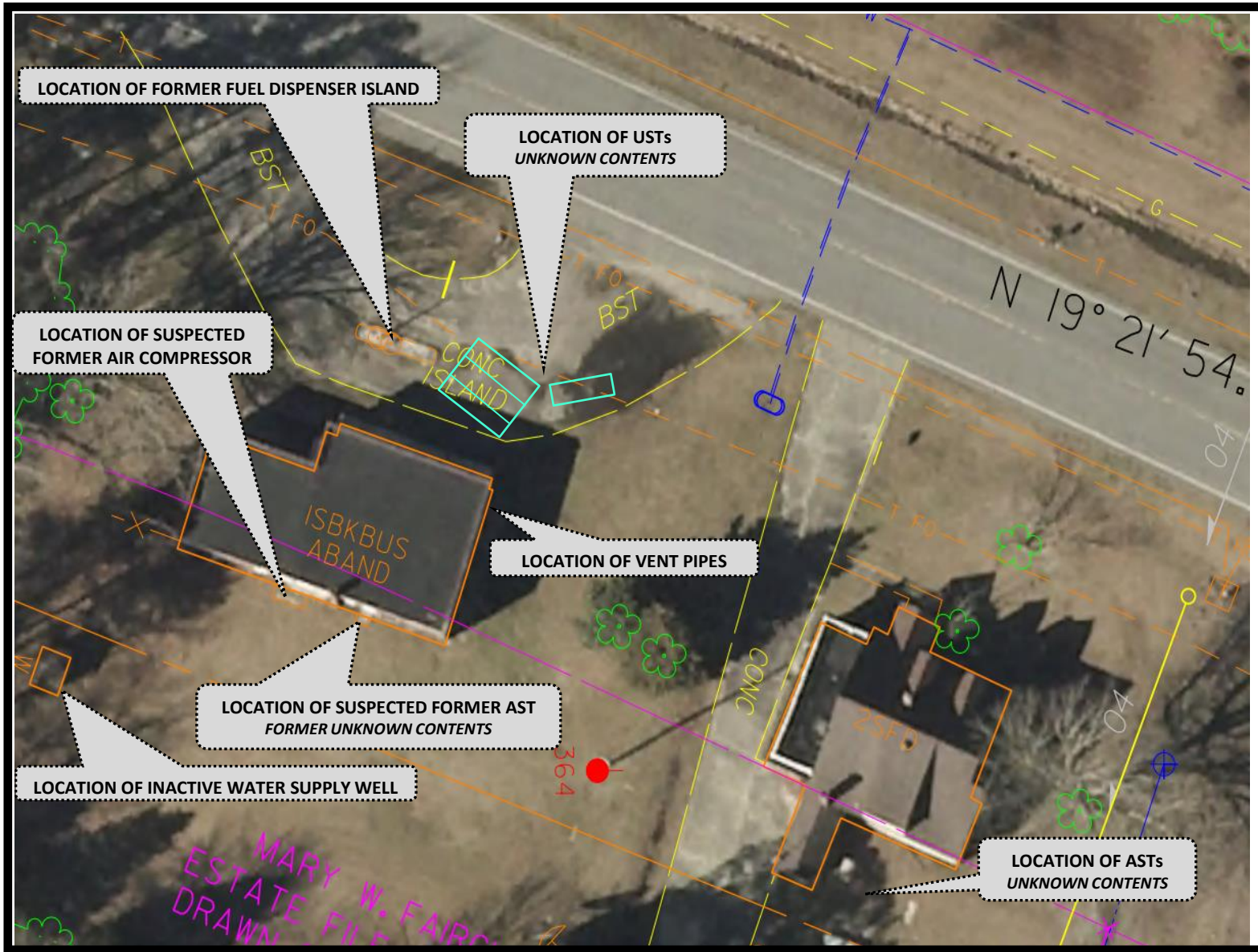
SOURCE:
USGS Topographic Map

SCALE:
AS SHOWN ABOVE

FIGURE 1 - SITE LOCATION MAP

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina

ECS Project No. 49:6617



LEGEND:

Approximate UST Location*

*as determined by the ESP Associates, Inc. geophysical investigation conducted on April 3, 2018 and April 25, 2018

FIGURE 2 – SITE FEATURES MAP

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina
ECS Project No. 49:6617

LEGEND:

Approximate UST Location*

Approximate Soil Sample Location

Approximate Soil Sample and Groundwater Sample Location

*as determined by the ESP Associates, Inc. geophysical investigation conducted on April 3, 2018 and April 25, 2018

FIGURE 3 – SAMPLE LOCATION MAP

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina

ECS Project No. 49:6617

SS-1/SS-1-TW	
COMPONENT	RESULT
DRO	0.06
GRO	<0.42

SS-2	
COMPONENT	RESULT
DRO	<0.03
GRO	<0.43

SS-3	
COMPONENT	RESULT
DRO	1.6
GRO	2.3

SS-4	
COMPONENT	RESULT
DRO	<0.03
GRO	0.45

SS-7	
COMPONENT	RESULT
DRO	0.34
GRO	0.69

SS-9/SS-9-TW	
COMPONENT	RESULT
DRO	19.3
GRO	31.9

SS-15	
COMPONENT	RESULT
DRO	0.69
GRO	<0.45

SS-10	
COMPONENT	RESULT
DRO	79.9
GRO	68.4

SS-11	
COMPONENT	RESULT
DRO	<0.03
GRO	<0.43

SS-14	
COMPONENT	RESULT
DRO	0.56
GRO	<0.47

SS-5	
COMPONENT	RESULT
DRO	11.5
GRO	<0.41

SS-6	
COMPONENT	RESULT
DRO	<0.12
GRO	<1.5

SS-8	
COMPONENT	RESULT
DRO	19.8
GRO	9.9

SS-13	
COMPONENT	RESULT
DRO	<0.03
GRO	1.1

SS-12	
COMPONENT	RESULT
DRO	0.23
GRO	<0.42

EXPLANATION

SS-# = SOIL SAMPLE

SS/TW-# = GROUNDWATER AND SOIL SAMPLE

REVISIONS	DATE

SCALE 1"=40'

20 40 40 0

REFERENCE:

SITE DATA PROVIDED BY NC DOT IN ELECTRONIC FORMAT

FIGURE 4 - SOIL ANALYTICAL RESULTS MAP
PARCELS #: NA
10052 US 17 HWY N
WASHINGTON, BEAUFORT COUNTY, NORTH CAROLINA

NC DOT PROJECT ID: R-2511	DATE: 05/21/2018	WBS ELEMENT: 35494.1.1
DRAWN BY: JRF	CHECKED BY: JRF	ECS PROJECT NO.: 49:6617

Note: Not to Scale

**S.U.E. = Subsurface Utility Engineering*

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Property Corner
- Property Monument (EPM)
- Parcel/Sequence Number (25)
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary (EWLB)
- Proposed Wetland Boundary (WLB)
- Existing Endangered Animal Boundary (EAB)
- Existing Endangered Plant Boundary (EPB)
- Known Soil Contamination: Boundary or Site
- Potential Soil Contamination: Boundary or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream (JS)
- Buffer Zone 1 (BZ 1)
- Buffer Zone 2 (BZ 2)
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge (CSX TRANSPORTATION)
- RR Signal Milepost (MILEPOST 35)
- Switch (SWITCH)
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite Marker
- Existing Control of Access
- Proposed Control of Access
- Existing Easement Line (E)
- Proposed Temporary Construction Easement (E)
- Proposed Temporary Drainage Easement (TDE)
- Proposed Permanent Drainage Easement (PDE)
- Proposed Permanent Drainage / Utility Easement (DUE)
- Proposed Permanent Utility Easement (PUE)
- Proposed Temporary Utility Easement (TUE)
- Proposed Aerial Utility Easement (AUE)
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut (C)
- Proposed Slope Stakes Fill (F)
- Proposed Curb Ramp (CR)
- Curb Cut Future Ramp (CCFR)
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard (Vineyard)

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert (CONC)
- Bridge Wing Wall, Head Wall and End Wall (CONC WW)

MINOR:

- Head and End Wall (CONC HW)
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB (CB)
- Paved Ditch Gutter
- Storm Sewer Manhole (S)
- Storm Sewer (S)

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole (P)
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line (P)
- Designated U/G Power Line (S.U.E.*) (P)

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole (T)
- Telephone Booth
- Telephone Pedestal (T)
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole (HH)
- Recorded U/G Telephone Cable (T)
- Designated U/G Telephone Cable (S.U.E.*) (T)
- Recorded U/G Telephone Conduit (TC)
- Designated U/G Telephone Conduit (S.U.E.*) (TC)
- Recorded U/G Fiber Optics Cable (T FO)
- Designated U/G Fiber Optics Cable (S.U.E.*) (T FO)

WATER:

- Water Manhole (W)
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line (W)
- Designated U/G Water Line (S.U.E.*) (W)
- Above Ground Water Line (A/G Water)

TV:

- TV Satellite Dish
- TV Pedestal (TV)
- TV Tower
- U/G TV Cable Hand Hole (HH)
- Recorded U/G TV Cable (TV)
- Designated U/G TV Cable (S.U.E.*) (TV)
- Recorded U/G Fiber Optic Cable (TV FO)
- Designated U/G Fiber Optic Cable (S.U.E.*) (TV FO)

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line (G)
- Designated U/G Gas Line (S.U.E.*) (G)
- Above Ground Gas Line (A/G Gas)

SANITARY SEWER:

- Sanitary Sewer Manhole (S)
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line (SS)
- Above Ground Sanitary Sewer (A/G Sanitary Sewer)
- Recorded SS Forced Main Line (FSS)
- Designated SS Forced Main Line (S.U.E.*) (FSS)

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box (S)
- Utility Unknown U/G Line (?UTL)
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. (UST)
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records (AATUR)
- End of Information (E.O.I.)

REVISIONS	DATE

SCALE 1"=40'

20 40 40 0

REFERENCE:

SITE DATA PROVIDED
BY NC DOT
IN ELECTRONIC FORMAT

FIGURE 5 - DOT LEGEND SHEET
PARCELS #: NA
10052 US 17 HWY N
WASHINGTON, BEAUFORT COUNTY,
NORTH CAROLINA

NC DOT PROJECT ID: R-2511	DATE: 05/21/2018	WBS ELEMENT: 35494.1.1
DRAWN BY: JRF	CHECKED BY: JRF	ECS PROJECT NO.: 49:6617

APPENDIX A

Photograph 1: View of the subject site – vacant residence and former automotive service facility with two bay doors combined with former gasoline retail station with a pump island where two former fuel dispenser were previously removed.

Photograph 2: View of rear of garage facility with inactive water supply well pump house.

SITE PHOTOGRAPHS

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina

ECS Project No. 49:6617

Photograph 3: View of the subject site interior – former automotive service facility.

Photograph 4: Additional view of the subject site interior – former automotive service facility.

SITE PHOTOGRAPHS

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina

ECS Project No. 49:6617

Photograph 5: View of the ASTs in the rear of the residence.

Photograph 6: View of UST basin and fill port.

SITE PHOTOGRAPHS

US 17 From Washington BYP North of NC 171 to Multi-Lane South of Williamston
State Project: R-2511 WBS Element: 35494.1.1
Parcel #NA, Faircloth, Mary Williams
10052 US 17 HWY N
Washington, Beaufort County, North Carolina

ECS Project No. 49:6617

APPENDIX B

April 27, 2018

Sarah Kordon
ECS Carolinas, LLP
4811 Koger Boulevard
Greensboro, NC 27407

Reference: **REPORT ON GEOPHYSICAL SERVICES TO SUPPORT PRELIMINARY SITE ASSESSMENT**
10052 US 17 HWY N
Washington, North Carolina
ESP Project No. EQ02.309

State Project: R-2511
WBS Element: 35494.1.1
County: Beaufort
Description: US 17 From Washington BYP North of NC 171 To Multi-Lanes South of Williamston

Dear Ms. Kordon:

ESP Associates, Inc. (ESP) is pleased to present this report to ECS Carolinas, LLP (ECS) on the geophysical services we provided for the referenced project. This work was performed under our subconsultant agreement dated September 11, 2014, in accordance with our cost proposal to you dated December 18, 2017, and also in accordance to Change Order 1 dated April 18, 2018. The purpose of the work was to help identify known and abandoned underground storage tanks (USTs).

1.0 GEOPHYSICAL DATA COLLECTION

On April 3, 2018, ESP performed geophysical studies on the west side of the former gas station and residence at 10052 US 17 Highway N., Washington, North Carolina. At the request of ECS, we returned to the site on April 25 and expanded the study area to include

the rear of the buildings and the area around the garage behind the residence. The work consisted of metal detection using a Geonics EM61 MK2 instrument and subsurface imaging using a Sensors and Software Noggin 250 Ground-Penetrating Radar (GPR) instrument. Representative photographs of the geophysical study areas are provided on Figure 1.

The EM61 data were collected over the accessible areas of the site using a line spacing of approximately 3 feet. We used a Hemisphere XF101 sub-meter differential GPS instrument (DGPS) connected to an Archer field computer to provide approximate locations of the EM61 data in real time. We collected GPR data over selected EM61 anomalies with responses significant enough to represent possible USTs. The DGPS instrument was also used to obtain the approximate location of site features that could affect the EM61 readings.

2.0 DATA ANALYSIS AND PRESENTATION

The EM61 data were gridded and contoured to produce plan view contour maps of the early time gate response (Figure 2) and the differential response (Figure 3). The differential response is calculated by subtracting the response of the bottom coil from the response of the top coil of the EM61. Typically, the differential response diminishes the response from smaller, near-surface metallic objects, thus emphasizing the response from deeper and larger metallic objects. The approximate DGPS locations of observed site features were superimposed on the EM61 contour maps so that anomalies caused by site features such as metal objects on the ground surface could be recognized.

The EM61 early time gate response and differential response were exported from Surfer as geo-referenced images and attached to the NCDOT plan sheet in MicroStation (Figures 6 and 7). The legend for the NCDOT line types and symbols is shown on Figure 8. The plan sheet has been updated to show the approximate locations of the known USTs mapped in the field with DGPS.

3.0 DISCUSSION OF RESULTS

The EM61 differential contour plot indicated high amplitude responses (anomalies) that correspond to sign poles and other metallic features on the ground surface. In addition, the EM61 differential data showed three anomalies that did not correspond to known metallic features.

We collected GPR data over three EM61 differential anomalies. Our on-site review of the GPR data indicated the location of four probable USTs on the north side of the relic pump island (Figures 4 and 5). The anomaly near the southwest portion of the site appears to be caused by a relic site feature or utility feature. The four probable USTs are all approximately

5 feet diameter by 12 feet long and buried about 2.5 feet below the surface. We outlined the area of the probable USTs using pink marking paint (Photos D and E, Figure 1).

4.0 SUMMARY AND CONCLUSIONS

Our review of the geophysical data collected for this project indicates the location of four probable USTs. In addition, there were two above-ground storage tanks (ASTs) behind the residence (Photo C, Figure 1). The probable USTs are each approximately 1,800 gallons in size and buried about 2.5 feet below the ground surface. We recommend that drilling and sampling be performed at least 2 feet outside of the area we marked indicating the approximate edges of the known UST.

5.0 LIMITATIONS

These services have been provided to ECS in accordance with generally accepted guidelines for performing geophysical surveys. It is recognized that the results of geophysical surveys are non-unique and subject to interpretation. Further, the locations of data and features included in this report are approximate and were collected using a sub-meter DGPS instrument. ESP makes no guarantee as to the accuracy of these locations.

Thank you for the opportunity to be of service to ECS on this project. Please contact us if you have any questions or need further information.

Sincerely,

ESP ASSOCIATES, Inc.

Edward D. Billington, PG

DMN/EDB

Attachments: Figures 1 – 8

A. Photo from southwest side of site, looking northeast.

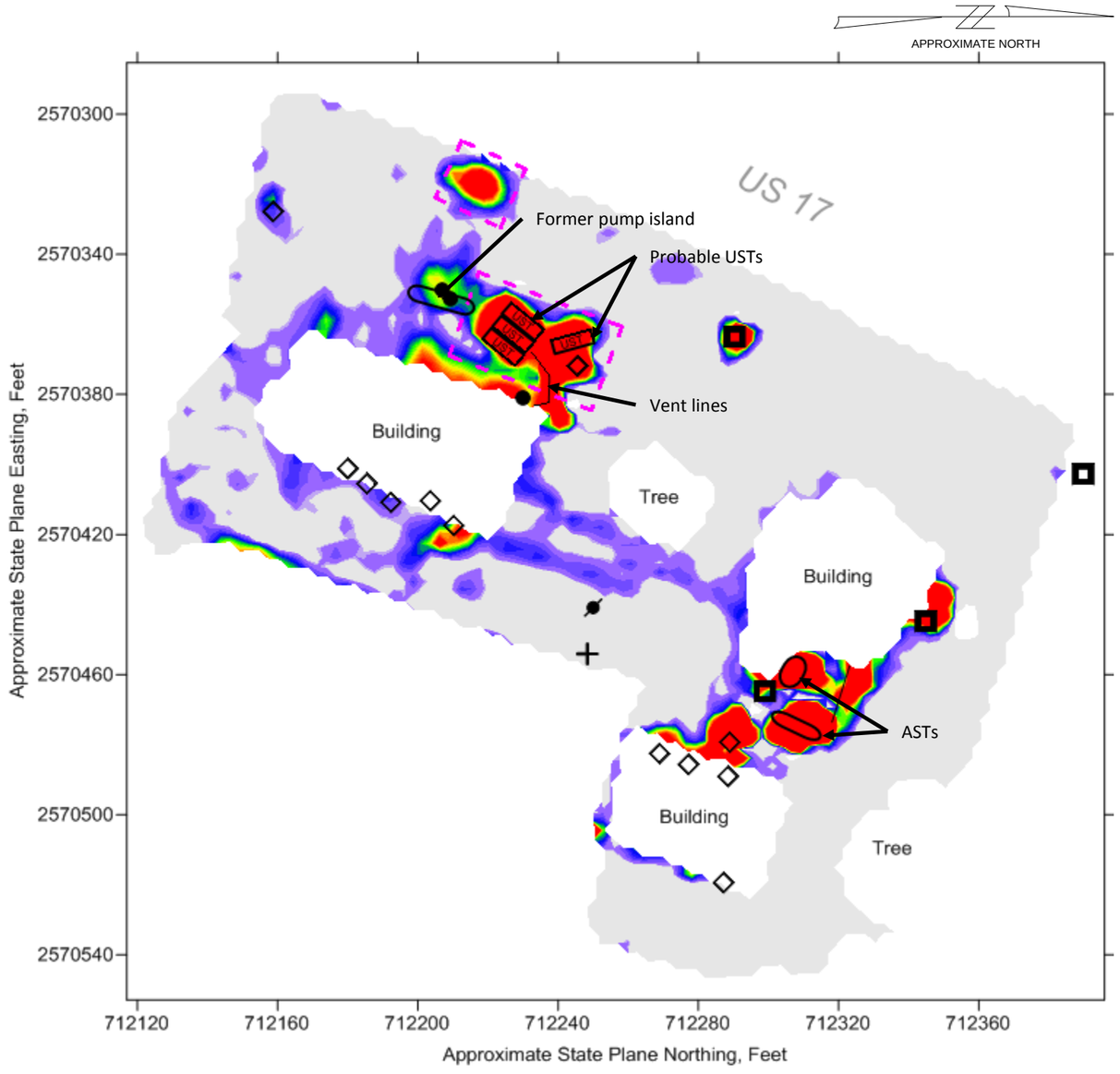
B. Photo from north side of site, looking south.

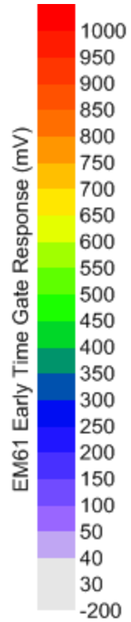
C. Photo of two ASTs behind residence.

D. Photo of marked location of probable USTs, looking south

E. Photo of marked location of probable UST, looking west.

PROJECT NO. EQ02.309	***FIGURE 1 – 10052 US 17 HWY N PHOTOGRAPHS OF SITE***	ESP Associates, Inc. 7011 Albert Pick Rd., Suite E Greensboro, NC 27409 336.334.7724 www.espassociates.com
SCALE NTS		
DATE 4/26/18	***US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON***	
BY DMN		





EXPLANATION

- Utility feature (water meter, hydrant, etc.)
- Miscellaneous metal objects on ground surface
- Sign pole, other pole
- Power pole
- Guy wire anchor
- EM61 data collection areas
- GPR data collection area

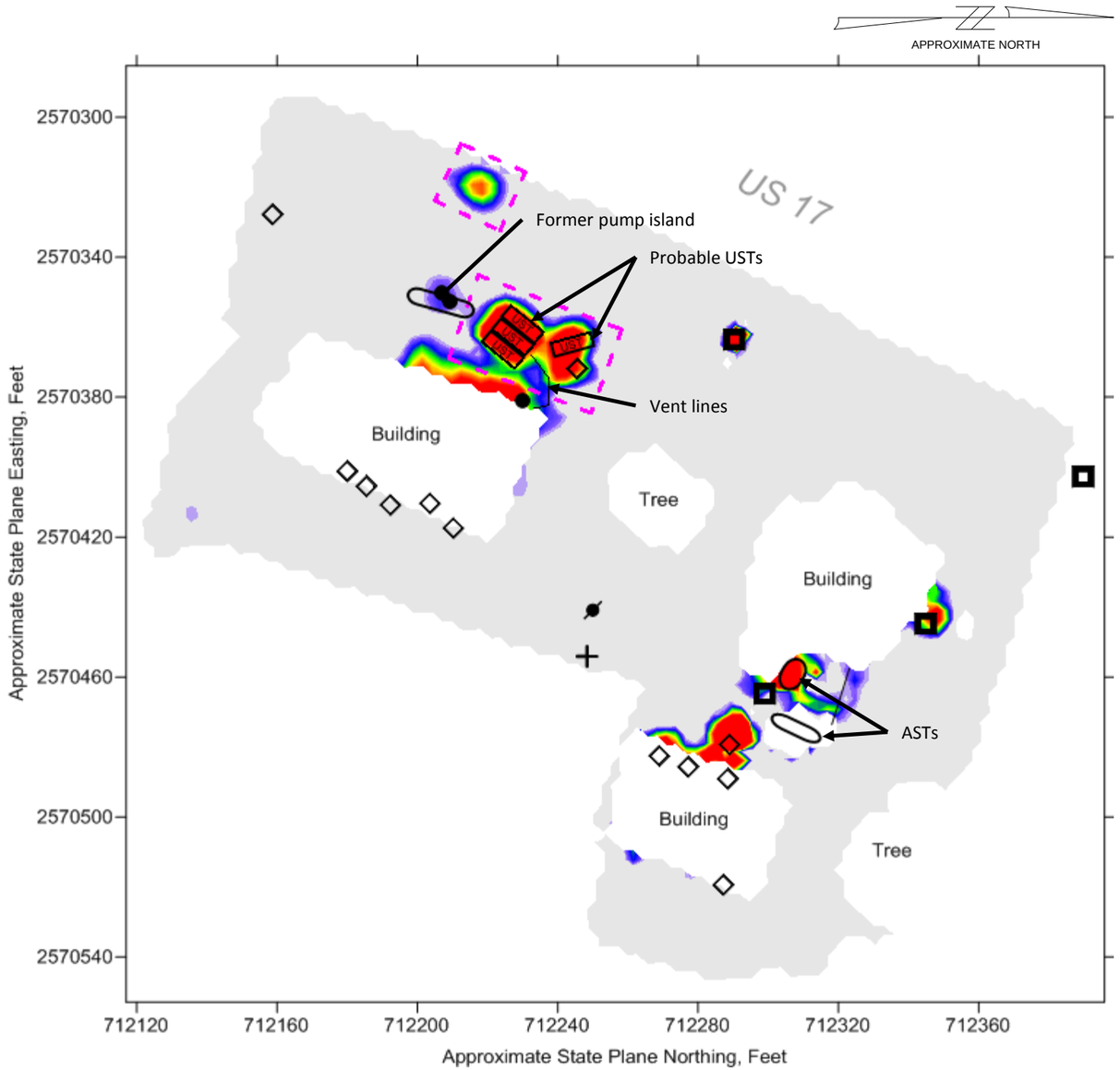
Note: Locations of data and features are approximate and were collected using a sub-meter DGPS instrument. ESP make no guarantees as to the accuracy of these locations. Coordinates on the axes of the maps are approximate and provided for general reference only.

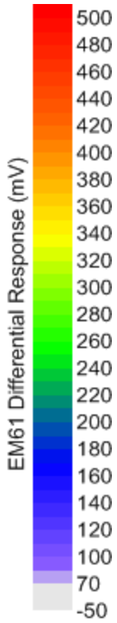
PROJECT NO.	EQ02.309
SCALE	AS SHOWN
DATE	4/26/18
BY	DMN

FIGURE 2 – 10052 US 17 HWY N
EM61 EARLY TIME GATE RESPONSE

US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON

ESP Associates, Inc.
7011 Albert Pick Rd.,
Suite E
Greensboro, NC 27409
336.334.7724
www.espassociates.com





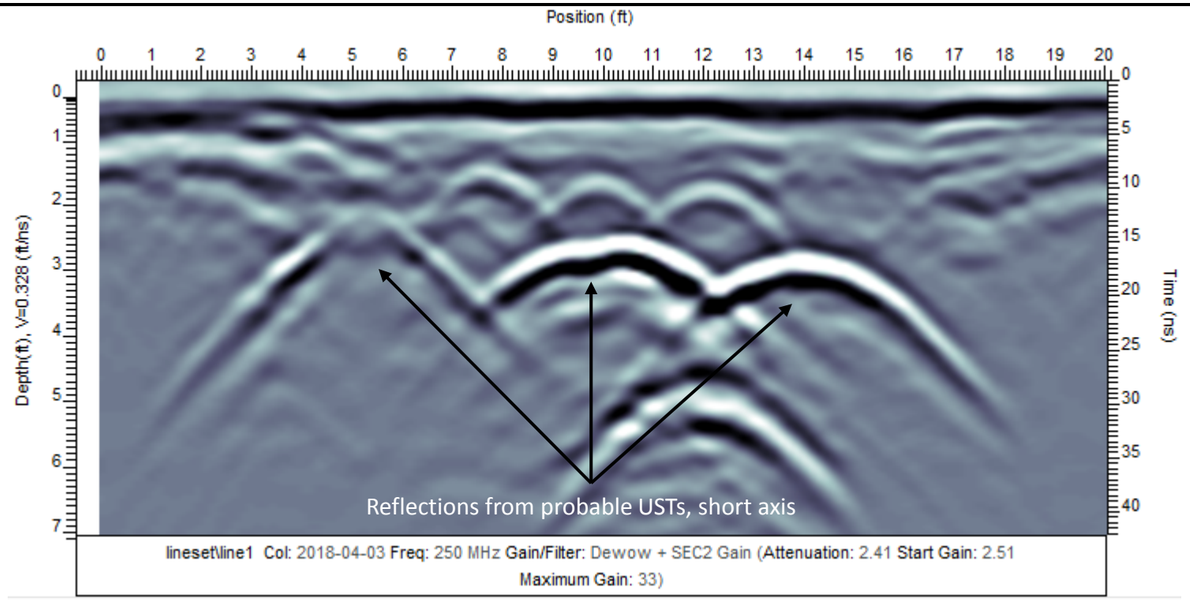
EXPLANATION

- Utility feature (water meter, hydrant, etc.)
- Miscellaneous metal objects on ground surface
- Sign pole, other pole
- Power pole
- Guy wire anchor
- EM61 data collection areas
- GPR data collection area

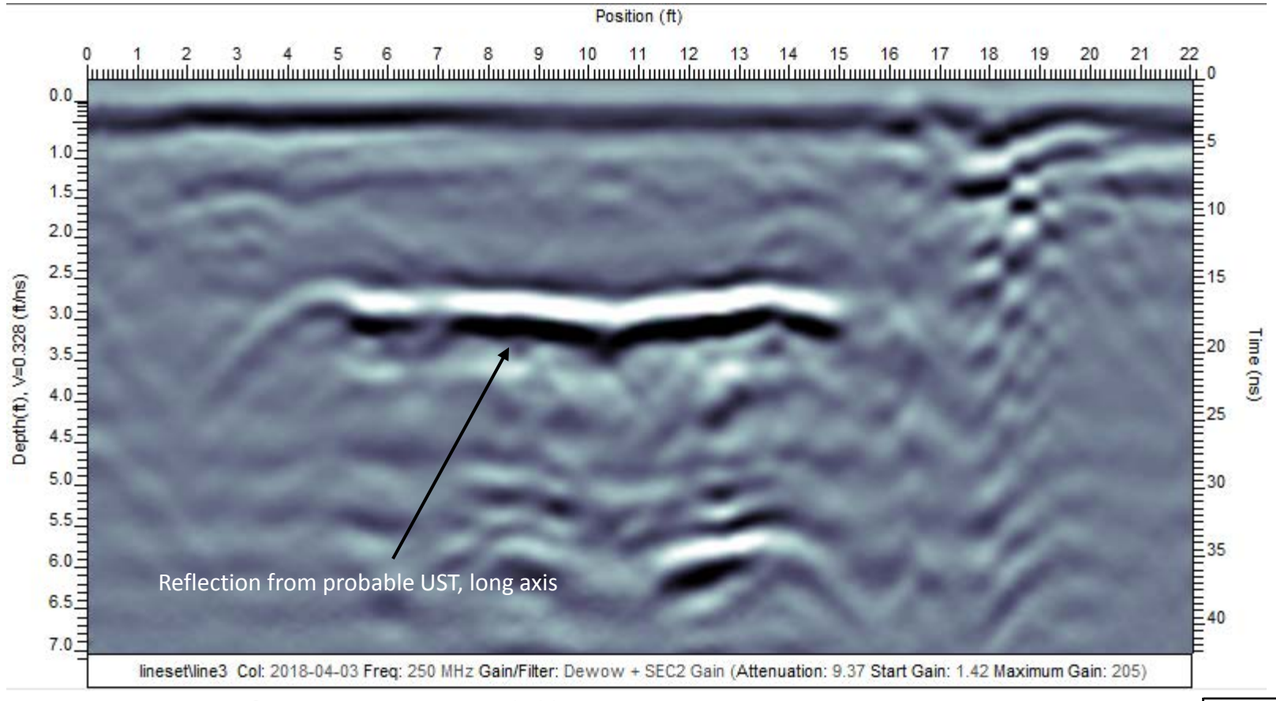
Note: Locations of data and features are approximate and were collected using a sub-meter DGPS instrument. ESP make no guarantees as to the accuracy of these locations. Coordinates on the axes of the maps are approximate and provided for general reference only.

PROJECT NO. EQ02.309	***FIGURE 3 – 10052 US 17 HWY N EM61 DIFFERENTIAL RESPONSE***
SCALE AS SHOWN	
DATE 4/26/18	***US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON***
BY DMN	

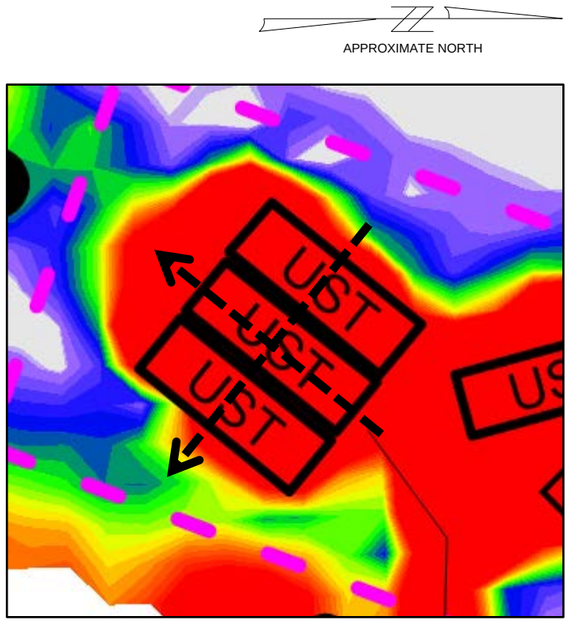
ESP Associates, Inc.
7011 Albert Pick Rd., Suite E
Greensboro, NC 27409
336.334.7724
www.espassociates.com



A. GPR image from NW to SE across probable USTs.



B. GPR image from NE to SW across probable UST.



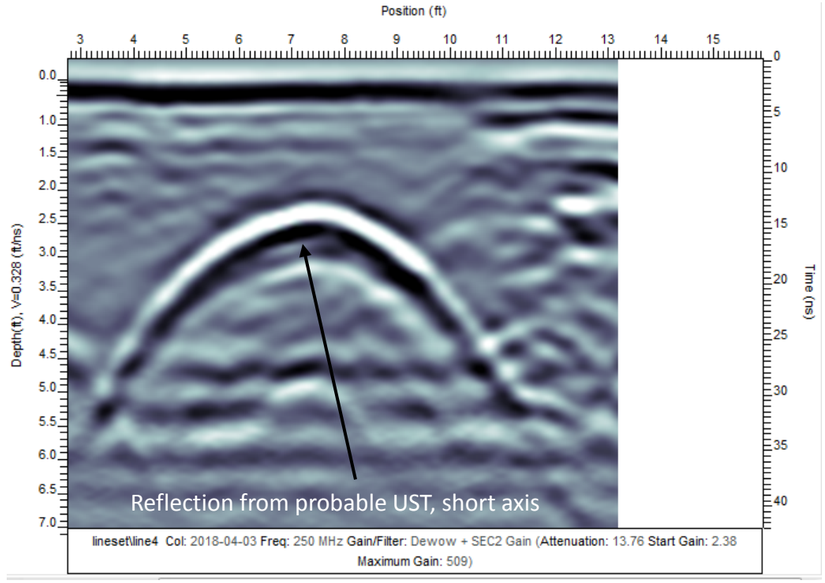
C. Portion of Figure 2 showing approximate locations of GPR cross-sections (dashed black lines with arrows).

PROJECT NO.	EQ02.309
SCALE	AS SHOWN
DATE	4/26/18
BY	DMN

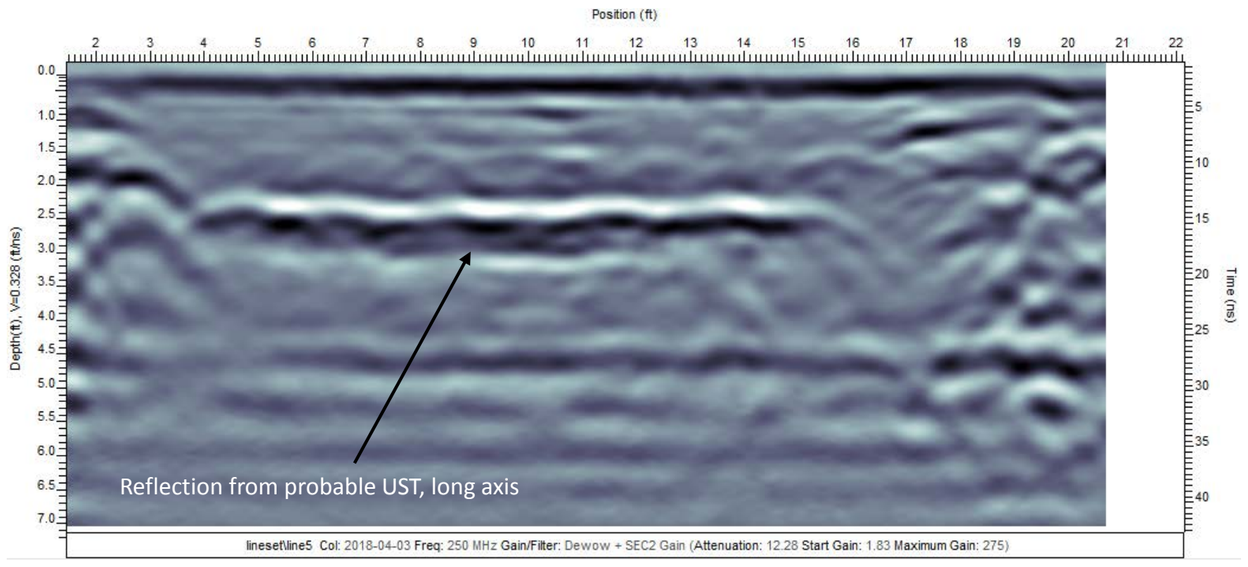
FIGURE 4
GPR IMAGES OF PROBABLE USTS

US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON

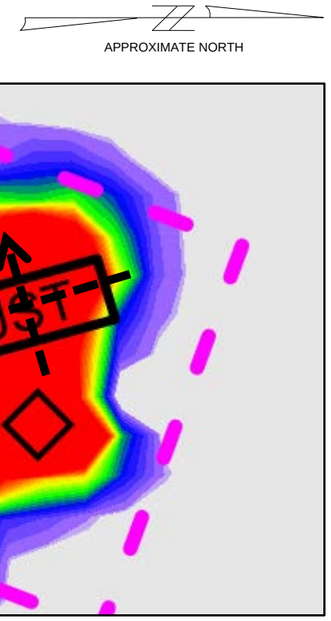
ESP Associates, Inc.
7011 Albert Pick Rd.,
Suite E
Greensboro, NC 27409
336.334.7724
www.espassociates.com



A. GPR image from E to W across probable UST.

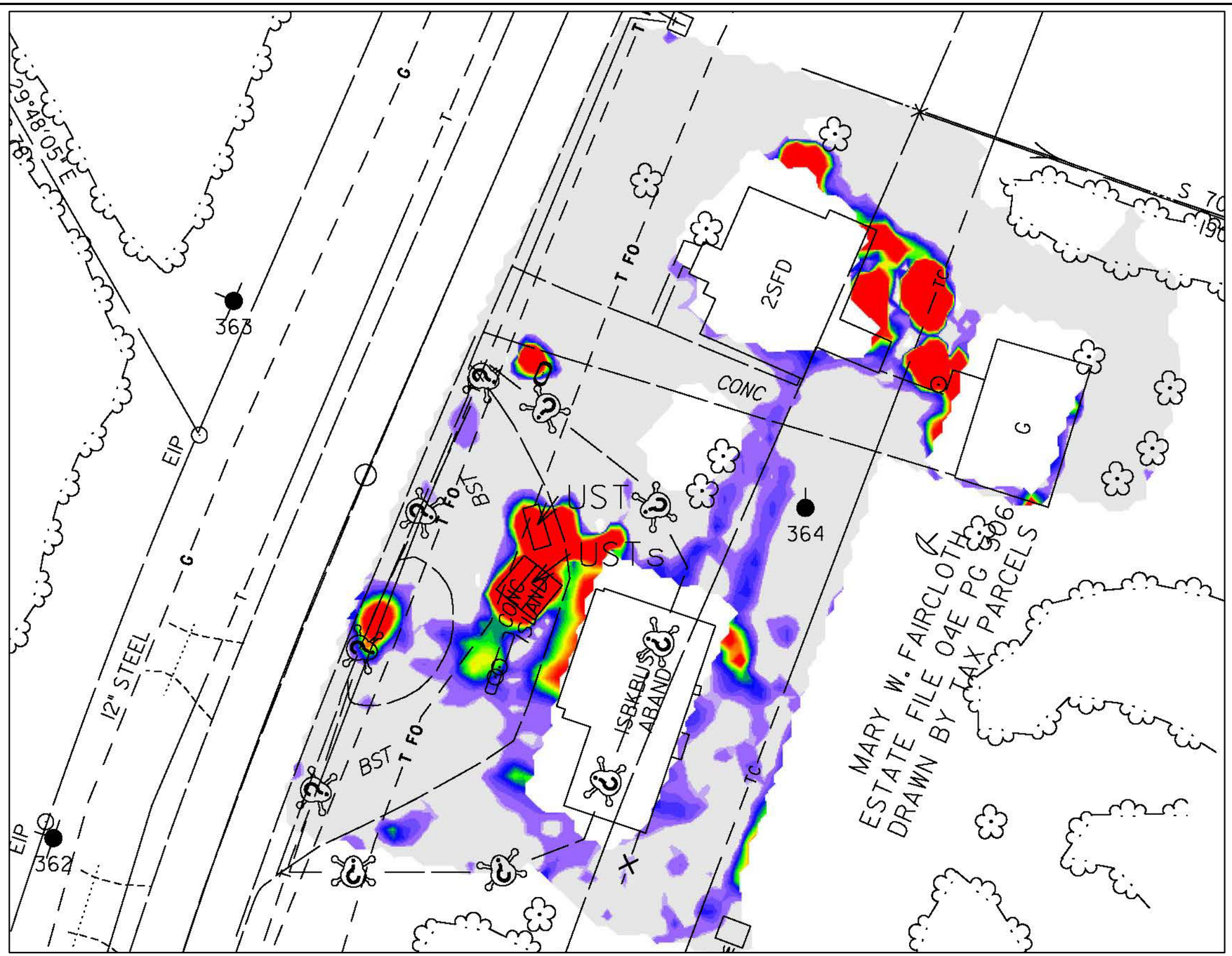


B. GPR image from NW to SE across probable UST.



C. Portion of Figure 2 showing approximate locations of GPR cross-sections (dashed black lines with arrows).

PROJECT NO. EQ02.309	***FIGURE 5*** ***GPR IMAGES OF PROBABLE UST***	ESP Associates, Inc. 7011 Albert Pick Rd., Suite E Greensboro, NC 27409 336.334.7724 www.espassociates.com
SCALE AS SHOWN	***US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON***	
DATE 4/26/18		
BY DMN		



List of NCDOT reference files

- R2511_Geo_env_ESP.dgn
  - R2511_NCDOT_FS.dgn

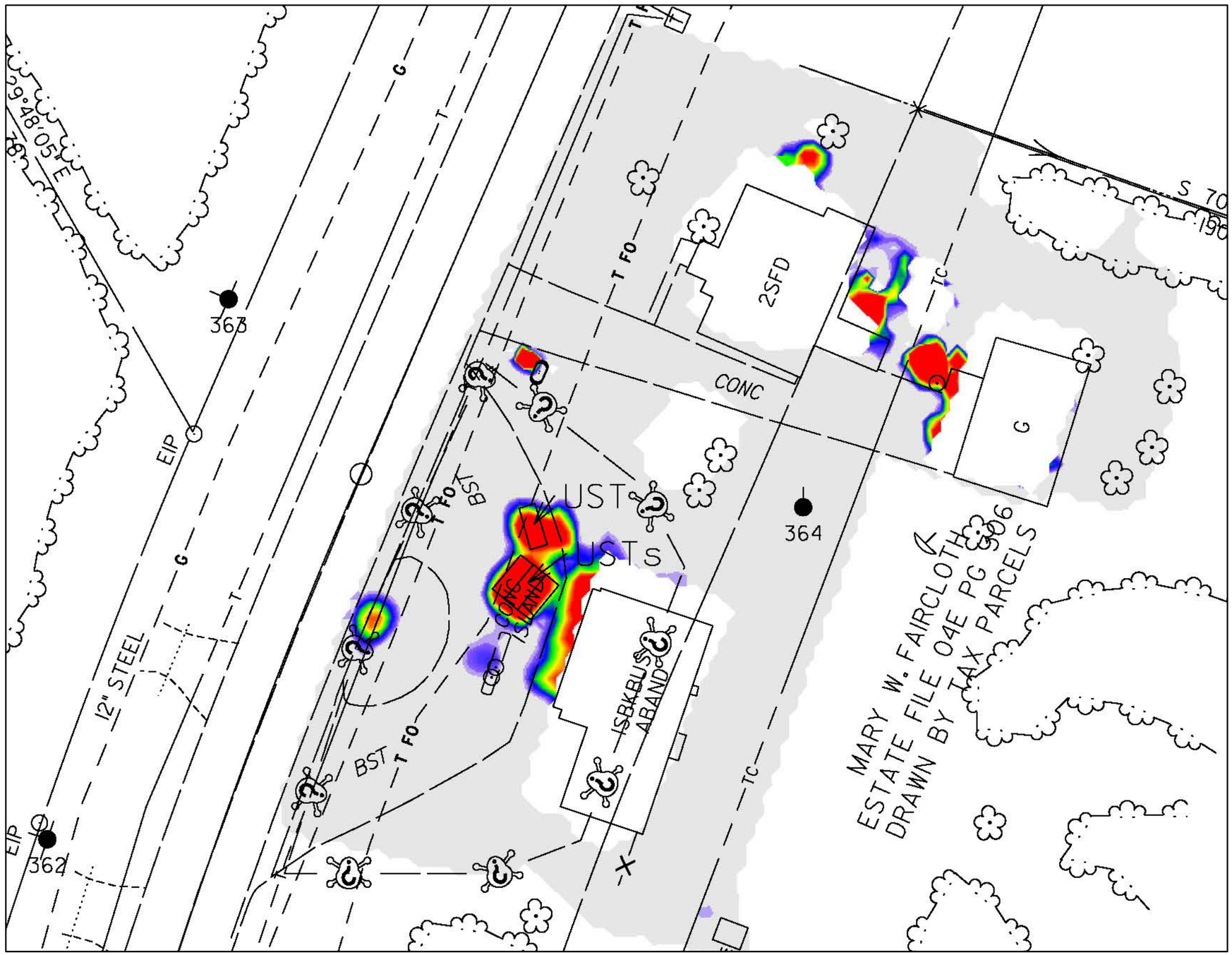
See Figure 8 for explanation of symbols and line types

PROJECT NO. EQ02.309	***FIGURE 6 – 10052 US 17 HWY N EM61 EARLY TIME GATE RESPONSE ON PLAN SHEET***
SCALE 1" = 30'	
DATE 4/26/18	***US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON***
BY DMN	

ESP Associates, Inc.
7011 Albert Pick Rd.,
Suite E
Greensboro, NC 27409

336.334.7724

www.espassociates.com



List of NCDOT reference files

- R2511_Geo_env_ESP.dgn
  - R2511_NCDOT_FS.dgn

See Figure 8 for explanation of symbols and line types

PROJECT NO. EQ02.309	***FIGURE 7 – 10052 US 17 HWY N EM61 DIFFERENTIAL RESPONSE ON PLAN SHEET***
SCALE 1" = 30'	
DATE 4/26/18	***US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON***
BY DMN	

ESP Associates, Inc.
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Suite E
Greensboro, NC 27409

336.334.7724

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04/26/15

PROJECT REFERENCE NO. | SHEET NO.

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin
- Property Corner
- Property Monument
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream (JS)
- Buffer Zone 1 (BZ 1)
- Buffer Zone 2 (BZ 2)
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge (CSX TRANSPORTATION)
- RR Signal Milepost (MILEPOST 35)
- Switch (SWITCH)
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite R/W Marker
- Proposed Control of Access Line with Concrete C/A Marker
- Existing Control of Access
- Proposed Control of Access
- Existing Easement Line (E)
- Proposed Temporary Construction Easement (TCE)
- Proposed Temporary Drainage Easement (TDE)
- Proposed Permanent Drainage Easement (PDE)
- Proposed Permanent Drainage / Utility Easement (DUE)
- Proposed Permanent Utility Easement (PUE)
- Proposed Temporary Utility Easement (TUE)
- Proposed Aerial Utility Easement (AUE)
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp (CR)
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard (Vineyard)

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert (CONC)
- Bridge Wing Wall, Head Wall and End Wall (CONC WW)

MINOR:

- Head and End Wall (CONC HW)
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB (CB)
- Paved Ditch Gutter
- Storm Sewer Manhole (S)
- Storm Sewer

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole (P)
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) (P)
- U/G Power Line LOS C (S.U.E.*) (P)
- U/G Power Line LOS D (S.U.E.*) (P)

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole (T)
- Telephone Pedestal (T)
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole (T)
- U/G Telephone Cable LOS B (S.U.E.*) (T)
- U/G Telephone Cable LOS C (S.U.E.*) (T)
- U/G Telephone Cable LOS D (S.U.E.*) (T)
- U/G Telephone Conduit LOS B (S.U.E.*) (TC)
- U/G Telephone Conduit LOS C (S.U.E.*) (TC)
- U/G Telephone Conduit LOS D (S.U.E.*) (TC)
- U/G Fiber Optics Cable LOS B (S.U.E.*) (TFO)
- U/G Fiber Optics Cable LOS C (S.U.E.*) (TFO)
- U/G Fiber Optics Cable LOS D (S.U.E.*) (TFO)

WATER:

- Water Manhole (W)
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E.*) (W)
- U/G Water Line LOS C (S.U.E.*) (W)
- U/G Water Line LOS D (S.U.E.*) (W)
- Above Ground Water Line (A/G Water)

TV:

- TV Pedestal (T)
- TV Tower
- U/G TV Cable Hand Hole (T)
- U/G TV Cable LOS B (S.U.E.*) (TV)
- U/G TV Cable LOS C (S.U.E.*) (TV)
- U/G TV Cable LOS D (S.U.E.*) (TV)
- U/G Fiber Optic Cable LOS B (S.U.E.*) (TV FO)
- U/G Fiber Optic Cable LOS C (S.U.E.*) (TV FO)
- U/G Fiber Optic Cable LOS D (S.U.E.*) (TV FO)

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) (G)
- U/G Gas Line LOS C (S.U.E.*) (G)
- U/G Gas Line LOS D (S.U.E.*) (G)
- Above Ground Gas Line (A/G Gas)

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line (SS)
- Above Ground Sanitary Sewer (A/G Sanitary Sewer)
- SS Forced Main Line LOS B (S.U.E.*) (FSS)
- SS Forced Main Line LOS C (S.U.E.*) (FSS)
- SS Forced Main Line LOS D (S.U.E.*) (FSS)

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line LOS B (S.U.E.*) (U/G)
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. (UST)
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records (AATUR)
- End of Information (E.O.I.)

PROJECT NO.	EQ02.309
SCALE	N/A
DATE	4/26/18
BY	DMN

FIGURE 8
LEGEND FOR PLAN SHEET FIGURES

US 17 FROM WASHINGTON BYP NORTH OF NC 171 TO MULTI-LANES SOUTH OF WILLIAMSTON

ESP Associates, Inc.
7011 Albert Pick Rd.,
Suite E
Greensboro, NC 27409

336.334.7724

www.espassociates.com

APPENDIX C

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-1

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort county, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER: 1.32 ft btoc	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5					**MH/SM**	GRAY SILT AND SAND
3	0.0				**SC/CH**	GRAY CLAYEY SAND. Soils appeared saturated at approximately 7 ft. bgs.
4.5						
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-1

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort county, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER: 1.32 ft btoc	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
12						GRAY CLAYEY SAND. Soils appeared saturated at approximately 7 ft. bgs.
13.5						
15					**SC/CH**	BORING TERMINATED.
16.5						
18						
19.5						
21						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-2:SS-4

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort county, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-5

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.5				**Topsoil**	
1.5						DARK GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-6/SS-7

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						LIGHT GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
					SC/CH	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-8

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
					Topsoil	
	9.4					GRAY CLAYEY SAND - SLIGHT PETROLEUM ODOR
1.5						
					SC/CH	
3						
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-9

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER: 1.68 ft btoc	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						DARK GRAY CLAYEY SAND
3						
	27.4					DARK GRAY CLAYEY SAND - STRONG PETROLEUM ODOR. Soils appeared saturated at approximately 7 ft. bgs.
4.5						
6						
7.5					**SC/CH**	
9					**SC/CH**	
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-9

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER: 1.68 ft btoc	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
12						DARK GRAY CLAYEY SAND - STRONG PETROLEUM ODOR. Soils appeared saturated at approximately 7 ft. bgs.
13.5						
15						BORING TERMINATED
16.5						
18						
19.5						
21						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-10

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						DARK GRAY CLAYEY SAND
3					**SC/CH**	
	120					DARK GRAY CLAYEY SAND
4.5					**SC/CH**	
						BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-11

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER: 7	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0				**Asphalt**	ASPHALT/ AUGER SPOIL
	0.0					GRAY CLAYEY SAND
1.5					**SC/CH**	
3						
4.5						
	0.0					GRAY SANDY CLAY WITH SILTS - SATURATED AROUND 7 FT. BGS.
6						
7.5					**VC**	
9						
10.5						BORING TERMINATED.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-12

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-13

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						RED AND GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PROJECT: NCDOT WBS Element 35494.1.1 **BORING NUM.** SS-14/SS-15

CLIENT: NCDOT **PROJECT NO.** 49:6617

LOCATION: Washington, Beaufort County, North Carolina	ELEVATION:	
DRILLER: Quantex	DATE DRILLED: 04/20/2018	LOGGED BY: S. Kordon/ J. Sikes (ECS)
DRILL RIG: GeoProbe	DEPTH TO WATER:	

Elevation/ Depth (Ft)	PID Reading	Sample Number	Sample Recovery (in/in)	Graphic Log	Soil Classification	SOIL DESCRIPTION
0	0.0					
	0.0				**Topsoil**	
1.5						DARK GRAY CLAYEY SAND
3					**SC/CH**	
4.5						
	0.0				**SC/CH**	BORING TERMINATED
6						
7.5						
9						
10.5						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

APPENDIX D

QED

AQROS

Hydrocarbon Analysis Results

Client: ECS RALEIGH
Address: 9001 GLENWOOD AVE
RALEIGH NC

Contact: SARAH KORDON

Project: #49:6617 FAIRCLOTH

Samples taken Thursday, April 19, 2018
Samples extracted Thursday, April 19, 2018
Samples analysed Friday, April 20, 2018

Operator NICK HENDRIX

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	SS-1	17.0	<0.85	<0.42	0.06	0.06	0.08	<0.02	<0.008	88.8	10.3	0.8	V.Deg.PHC 80%,(FCM),(OCR)
s	SS-2	17.2	<0.43	<0.43	<0.03	<0.43	<0.09	<0.02	<0.009	0	100	0	Residual HC,(OCR)
s	SS-3	18.4	<0.92	2.3	1.6	3.9	0.97	0.03	<0.009	74	25.1	0.8	V.Deg.PHC 79.2%,(FCM)
s	SS-4	17.1	<0.86	0.45	<0.03	0.45	<0.09	<0.02	<0.009	100	0	0	Residual HC,(OCR)
s	SS-5	16.4	<0.41	<0.41	11.5	11.5	6.3	0.31	<0.008	0	97.8	2	Deg.PHC 78.8%,(FCM)
s	SS-6	61.7	<3.1	<1.5	<0.12	<1.5	<0.31	<0.06	<0.031	0	85.3	13	Residual HC,(BO),(P)
s	SS-7	17.0	<0.85	0.69	0.34	1.03	0.34	<0.02	<0.008	70.7	29	0.3	V.Deg.PHC 58.4%,(FCM),(OCR)
s	SS-8	18.6	<0.46	9.9	19.8	29.7	5.4	0.19	<0.009	68.8	31.2	0.1	Deg.Diesel 78.5%,(FCM),(P)
s	SS-9	54.3	5.9	31.9	19.3	51.2	4.2	0.15	<0.027	90	9.9	0	Deg Gas 87.4%,(FCM)
s	SS-10	17.3	<0.43	68.4	79.9	148.3	34.2	1.2	<0.009	70.6	29.3	0	Deg Gas 78.2%,(FCM),(BO)

Initial Calibrator QC check OK Final FCM QC Check OK 99.9 %

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

AQROS

Hydrocarbon Analysis Results

Client: ECS RALEIGH
Address: 9001 GLENWOOD AVE
RALEIGH NC

Samples taken Thursday, April 19, 2018
Samples extracted Thursday, April 19, 2018
Samples analysed Friday, April 20, 2018

Contact: SARAH KORDON

Operator NICK HENDRIX

Project: #49:6617 FAIRCLOTH

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	SS-11	17.3	<0.43	<0.43	<0.03	<0.43	<0.09	<0.02	<0.009	0	0	0	PHC not detected,(OCR)
s	SS-12	16.7	<0.42	<0.42	0.23	0.23	0.08	<0.02	<0.008	0	100	0	Deg Fuel 25%,(FCM),(OCR),(P)
s	SS-13	17.0	<0.85	1.1	<0.03	1.1	<0.08	<0.02	<0.008	100	0	0	Deg.Light.Fuel 66.6%,(FCM)
s	SS-14	18.8	<0.47	<0.47	0.56	0.56	0.56	0.03	<0.009	0	87.7	11.2	V.Deg.PHC 56.4%,(FCM),(BO),(P)
s	SS-15	17.9	<0.45	<0.45	0.69	0.69	0.38	<0.02	<0.009	0	97.7	2	V.Deg.Diesel 79.1%,(FCM),(OCR),(P)

Initial Calibrator QC check OK Final FCM QC Check OK 98.2 %

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**

Batch 78

Client Name:	ECS Raleigh
Address:	9001 Glenwood Ave Raleigh NC
Contact:	SARAH GORDON
Project Ref.:	49:6617 Fairclotn
Email:	SGORDON@ECSLIMITED.COM
Phone #:	919 616 8145
Collected by:	SARAH GORDON

REDLAB™

RAPID ENVIRONMENTAL DIAGNOSTICS

CHAIN OF CUSTODY AND ANALYTICAL REQUEST FORM

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

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

Sample Collection Date/Time	TAT Requested 24 Hour	TAT Requested 48 Hour	Initials	Sample ID	Total Wt.	Tare Wt.	Sample Wt.
4/19/2018 11:50		X		SS-1	59.1	43.8	15.3
12:05				SS-2	58.6	43.5	15.1
13:56				SS-3	58.8	44.7	14.1
14:09				SS-4	57.0	41.8	15.2
10:45				SS-5	60.3	44.4	15.9
10:30				SS-6	58.6	45.3	13.3
11:19				SS-7	60.0	44.7	15.3
10:15				SS-8	57.6	43.6	14.0
10:05				SS-9	58.4	43.3	15.1
10:48				SS-10	60.5	45.5	15.0
9:50				SS-11	58.9	43.9	15.0
10:00				SS-12	59.2	43.6	15.6
14:32				SS-13	59.6	44.3	15.3
14:13				SS-14	57.1	43.3	13.8
11:15				SS-15	59.8	45.3	14.5

Comments: 48H TAT Thankyou!

Relinquished by	Date/Time	Accepted by	Date/Time
SARAH GORDON (ECS)	4/19/2018 16:40	NH	4/19/18 18:27
Relinquished by	Date/Time	Accepted by	Date/Time

RED Lab USE ONLY

15

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

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

Case Narrative

05/04/2018

ECS Carolinas, LLP (Raleigh)
Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property
Project No.: WBS# 35494.1.1 R-2511
Lab Submittal Date: 04/24/2018
Prism Work Order: 8040469

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.

Angela D. Overcash

VP Laboratory Services

Reviewed By Angela D. Overcash

VP Laboratory Services

Data Qualifiers Key Reference:

A	Dilution performed outside of hold time. Original run within hold time
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
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

05/04/2018

Prism Work Order: 8040469

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
SS-1-TW	8040469-01	Water	04/19/18	04/24/18
SS-9-TW	8040469-02	Water	04/19/18	04/24/18

Samples were received in good condition at 3.4 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

05/04/2018

Prism Work Order: 8040469

Prism ID	Client ID	Parameter	Method	Result		Units
8040469-01	SS-1-TW	Acetone	SM6200 B	6.3	J	ug/L
8040469-02	SS-9-TW	1,2,4-Trimethylbenzene	SM6200 B	2200	A	ug/L
8040469-02	SS-9-TW	1,3,5-Trimethylbenzene	SM6200 B	660	A	ug/L
8040469-02	SS-9-TW	4-Isopropyltoluene	SM6200 B	10		ug/L
8040469-02	SS-9-TW	Benzene	SM6200 B	86		ug/L
8040469-02	SS-9-TW	Ethylbenzene	SM6200 B	2500	A	ug/L
8040469-02	SS-9-TW	Isopropyl Ether	SM6200 B	1.0		ug/L
8040469-02	SS-9-TW	Isopropylbenzene (Cumene)	SM6200 B	95		ug/L
8040469-02	SS-9-TW	m,p-Xylenes	SM6200 B	8500	A	ug/L
8040469-02	SS-9-TW	Naphthalene	SM6200 B	360	A	ug/L
8040469-02	SS-9-TW	n-Propylbenzene	SM6200 B	320	A	ug/L
8040469-02	SS-9-TW	o-Xylene	SM6200 B	3700	A	ug/L
8040469-02	SS-9-TW	sec-Butylbenzene	SM6200 B	15		ug/L
8040469-02	SS-9-TW	Styrene	SM6200 B	85		ug/L
8040469-02	SS-9-TW	tert-Butylbenzene	SM6200 B	0.68		ug/L
8040469-02	SS-9-TW	Toluene	SM6200 B	5500	A	ug/L
8040469-02	SS-9-TW	Xylenes, total	SM6200 B	12000	A	ug/L

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

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No.: WBS# 35494.1.1 R-2511
Sample Matrix: Water

Client Sample ID: SS-1-TW
Prism Sample ID: 8040469-01
Prism Work Order: 8040469
Time Collected: 04/19/18 14:25
Time Submitted: 04/24/18 14:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Volatile Organic Compounds by GC/ECD									
1,2-Dibromoethane (EDB)	BRL	ug/L	0.021	0.0025	1	504.1	5/1/18 17:12	JMV	P8E0030
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.061	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.036	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1-Dichloroethane	BRL	ug/L	0.50	0.083	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1-Dichloroethylene	BRL	ug/L	0.50	0.083	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,1-Dichloropropylene	BRL	ug/L	0.50	0.051	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.40	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.14	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.13	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.17	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2-Dibromoethane	BRL	ug/L	0.50	0.051	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2-Dichloroethane	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,2-Dichloropropane	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,3-Dichloropropane	BRL	ug/L	0.50	0.043	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.050	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
2-Chlorotoluene	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
4-Chlorotoluene	BRL	ug/L	0.50	0.050	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
4-Isopropyltoluene	BRL	ug/L	0.50	0.089	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Acetone	**6.3 J**	**ug/L**	**10**	**0.31**	**1**	**SM6200 B**	**5/3/18 1:12**	**KDM**	**P8E0080**
Benzene	BRL	ug/L	0.50	0.048	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Bromobenzene	BRL	ug/L	0.50	0.057	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Bromochloromethane	BRL	ug/L	0.50	0.14	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Bromodichloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Bromoform	BRL	ug/L	0.50	0.040	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Bromomethane	BRL	ug/L	1.0	0.18	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Carbon Tetrachloride	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Chlorobenzene	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Chloroethane	BRL	ug/L	0.50	0.22	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Chloroform	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Chloromethane	BRL	ug/L	0.50	0.079	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.056	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.079	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Dibromochloromethane	BRL	ug/L	0.50	0.081	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Dibromomethane	BRL	ug/L	0.50	0.065	1	SM6200 B	5/3/18 1:12	KDM	P8E0080

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No.: WBS# 35494.1.1 R-2511
Sample Matrix: Water

Client Sample ID: SS-1-TW
Prism Sample ID: 8040469-01
Prism Work Order: 8040469
Time Collected: 04/19/18 14:25
Time Submitted: 04/24/18 14:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	ug/L	1.0	0.11	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Ethanol	BRL	ug/L	200	27	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Ethylbenzene	BRL	ug/L	0.50	0.061	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Hexachlorobutadiene	BRL	ug/L	2.0	0.16	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Isopropyl Ether	BRL	ug/L	0.50	0.050	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.054	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
m,p-Xylenes	BRL	ug/L	1.0	0.12	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.065	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.24	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.078	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Methylene Chloride	BRL	ug/L	2.0	0.083	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.042	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Naphthalene	BRL	ug/L	1.0	0.19	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
n-Butylbenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
n-Propylbenzene	BRL	ug/L	0.50	0.087	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
o-Xylene	BRL	ug/L	0.50	0.044	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
sec-Butylbenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Styrene	BRL	ug/L	0.50	0.047	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
tert-Butylbenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Tetrachloroethylene	BRL	ug/L	0.50	0.098	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Toluene	BRL	ug/L	0.50	0.044	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.070	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.12	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Trichloroethylene	BRL	ug/L	0.50	0.078	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Trichlorofluoromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Vinyl acetate	BRL	ug/L	5.0	0.060	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Vinyl chloride	BRL	ug/L	0.50	0.097	1	SM6200 B	5/3/18 1:12	KDM	P8E0080
Xylenes, total	BRL	ug/L	1.5	0.15	1	SM6200 B	5/3/18 1:12	KDM	P8E0080

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*102 %*	*70-130*
Dibromofluoromethane	*104 %*	*70-130*
Toluene-d8	*100 %*	*70-130*

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No.: WBS# 35494.1.1 R-2511
Sample Matrix: Water

Client Sample ID: SS-9-TW
Prism Sample ID: 8040469-02
Prism Work Order: 8040469
Time Collected: 04/19/18 13:50
Time Submitted: 04/24/18 14:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Volatile Organic Compounds by GC/ECD									
1,2-Dibromoethane (EDB)	BRL	ug/L	0.022	0.0027	1	504.1	5/1/18 17:43	JMV	P8E0030
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.061	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.036	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1-Dichloroethane	BRL	ug/L	0.50	0.083	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1-Dichloroethylene	BRL	ug/L	0.50	0.083	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,1-Dichloropropylene	BRL	ug/L	0.50	0.051	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.40	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.14	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.13	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2,4-Trimethylbenzene	**2200 A**	**ug/L**	**50**	**5.4**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.17	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2-Dibromoethane	BRL	ug/L	0.50	0.051	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2-Dichloroethane	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,2-Dichloropropane	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,3,5-Trimethylbenzene	**660 A**	**ug/L**	**50**	**7.6**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,3-Dichloropropane	BRL	ug/L	0.50	0.043	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.050	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
2-Chlorotoluene	BRL	ug/L	0.50	0.066	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
4-Chlorotoluene	BRL	ug/L	0.50	0.050	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
4-Isopropyltoluene	**10**	**ug/L**	**0.50**	**0.089**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
Acetone	BRL	ug/L	10	0.31	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Benzene	**86**	**ug/L**	**0.50**	**0.048**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
Bromobenzene	BRL	ug/L	0.50	0.057	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Bromochloromethane	BRL	ug/L	0.50	0.14	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Bromodichloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Bromoform	BRL	ug/L	0.50	0.040	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Bromomethane	BRL	ug/L	1.0	0.18	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Carbon Tetrachloride	BRL	ug/L	0.50	0.11	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Chlorobenzene	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Chloroethane	BRL	ug/L	0.50	0.22	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Chloroform	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Chloromethane	BRL	ug/L	0.50	0.079	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.056	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.079	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Dibromochloromethane	BRL	ug/L	0.50	0.081	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Dibromomethane	BRL	ug/L	0.50	0.065	1	SM6200 B	5/3/18 1:46	KDM	P8E0080

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
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Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No.: WBS# 35494.1.1 R-2511
Sample Matrix: Water

Client Sample ID: SS-9-TW
Prism Sample ID: 8040469-02
Prism Work Order: 8040469
Time Collected: 04/19/18 13:50
Time Submitted: 04/24/18 14:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	ug/L	1.0	0.11	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Ethanol	BRL	ug/L	200	27	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Ethylbenzene	**2500 A**	**ug/L**	**50**	**6.1**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
Hexachlorobutadiene	BRL	ug/L	2.0	0.16	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Isopropyl Ether	**1.0**	**ug/L**	**0.50**	**0.050**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
Isopropylbenzene (Cumene)	**95**	**ug/L**	**0.50**	**0.054**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
m,p-Xylenes	**8500 A**	**ug/L**	**100**	**12**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.065	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.24	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.078	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Methylene Chloride	BRL	ug/L	2.0	0.083	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.042	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Naphthalene	**360 A**	**ug/L**	**100**	**19**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
n-Butylbenzene	BRL	ug/L	0.50	0.076	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
n-Propylbenzene	**320 A**	**ug/L**	**50**	**8.7**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
o-Xylene	**3700 A**	**ug/L**	**50**	**4.4**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
sec-Butylbenzene	**15**	**ug/L**	**0.50**	**0.076**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
Styrene	**85**	**ug/L**	**0.50**	**0.047**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
tert-Butylbenzene	**0.68**	**ug/L**	**0.50**	**0.088**	**1**	**SM6200 B**	**5/3/18 1:46**	**KDM**	**P8E0080**
Tetrachloroethylene	BRL	ug/L	0.50	0.098	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Toluene	**5500 A**	**ug/L**	**50**	**4.4**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.070	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.12	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Trichloroethylene	BRL	ug/L	0.50	0.078	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Trichlorofluoromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Vinyl acetate	BRL	ug/L	5.0	0.060	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Vinyl chloride	BRL	ug/L	0.50	0.097	1	SM6200 B	5/3/18 1:46	KDM	P8E0080
Xylenes, total	**12000 A**	**ug/L**	**150**	**15**	**100**	**SM6200 B**	**5/4/18 3:50**	**KDM**	**P8E0080**

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*108 %*	*70-130*
Dibromofluoromethane	*96 %*	*70-130*
Toluene-d8	*90 %*	*70-130*

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No: WBS# 35494.1.1
R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

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 P8E0080 - SM6200 B										
Blank (P8E0080-BLK1)				Prepared & Analyzed: 05/02/18						
1,1,1,2-Tetrachloroethane	BRL	0.50	ug/L							
1,1,1-Trichloroethane	BRL	0.50	ug/L							
1,1,2,2-Tetrachloroethane	BRL	0.50	ug/L							
1,1,2-Trichloroethane	BRL	0.50	ug/L							
1,1-Dichloroethane	BRL	0.50	ug/L							
1,1-Dichloroethylene	BRL	0.50	ug/L							
1,1-Dichloropropylene	BRL	0.50	ug/L							
1,2,3-Trichlorobenzene	BRL	0.50	ug/L							
1,2,3-Trichloropropane	BRL	0.50	ug/L							
1,2,4-Trichlorobenzene	BRL	0.50	ug/L							
1,2,4-Trimethylbenzene	BRL	0.50	ug/L							
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L							
1,2-Dibromoethane	BRL	0.50	ug/L							
1,2-Dichlorobenzene	BRL	0.50	ug/L							
1,2-Dichloroethane	BRL	0.50	ug/L							
1,2-Dichloropropane	BRL	0.50	ug/L							
1,3,5-Trimethylbenzene	BRL	0.50	ug/L							
1,3-Dichlorobenzene	BRL	0.50	ug/L							
1,3-Dichloropropane	BRL	0.50	ug/L							
1,4-Dichlorobenzene	BRL	0.50	ug/L							
2,2-Dichloropropane	BRL	2.0	ug/L							
2-Chlorotoluene	BRL	0.50	ug/L							
4-Chlorotoluene	BRL	0.50	ug/L							
4-Isopropyltoluene	BRL	0.50	ug/L							
Acetone	BRL	10	ug/L							
Benzene	BRL	0.50	ug/L							
Bromobenzene	BRL	0.50	ug/L							
Bromochloromethane	BRL	0.50	ug/L							
Bromodichloromethane	BRL	0.50	ug/L							
Bromoform	BRL	0.50	ug/L							
Bromomethane	BRL	1.0	ug/L							
Carbon Tetrachloride	BRL	0.50	ug/L							
Chlorobenzene	BRL	0.50	ug/L							
Chloroethane	BRL	0.50	ug/L							
Chloroform	BRL	0.50	ug/L							
Chloromethane	BRL	0.50	ug/L							
cis-1,2-Dichloroethylene	BRL	0.50	ug/L							
cis-1,3-Dichloropropylene	BRL	0.50	ug/L							
Dibromochloromethane	BRL	0.50	ug/L							
Dibromomethane	BRL	0.50	ug/L							
Dichlorodifluoromethane	BRL	1.0	ug/L							
Ethanol	BRL	200	ug/L							
Ethylbenzene	BRL	0.50	ug/L							
Hexachlorobutadiene	BRL	2.0	ug/L							
Isopropyl Ether	BRL	0.50	ug/L							
Isopropylbenzene (Cumene)	BRL	0.50	ug/L							

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Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No: WBS# 35494.1.1
R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

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 P8E0080 - SM6200 B										
Blank (P8E0080-BLK1)				Prepared & Analyzed: 05/02/18						
m,p-Xylenes	BRL	1.0	ug/L							
Methyl Butyl Ketone (2-Hexanone)	BRL	1.0	ug/L							
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L							
Methyl Isobutyl Ketone	BRL	1.0	ug/L							
Methylene Chloride	BRL	2.0	ug/L							
Methyl-tert-Butyl Ether	BRL	1.0	ug/L							
Naphthalene	BRL	1.0	ug/L							
n-Butylbenzene	BRL	0.50	ug/L							
n-Propylbenzene	BRL	0.50	ug/L							
o-Xylene	BRL	0.50	ug/L							
sec-Butylbenzene	BRL	0.50	ug/L							
Styrene	BRL	0.50	ug/L							
tert-Butylbenzene	BRL	0.50	ug/L							
Tetrachloroethylene	BRL	0.50	ug/L							
Toluene	BRL	0.50	ug/L							
trans-1,2-Dichloroethylene	BRL	0.50	ug/L							
trans-1,3-Dichloropropylene	BRL	0.50	ug/L							
Trichloroethylene	BRL	0.50	ug/L							
Trichlorofluoromethane	BRL	0.50	ug/L							
Vinyl acetate	BRL	5.0	ug/L							
Vinyl chloride	BRL	0.50	ug/L							
Xylenes, total	BRL	1.5	ug/L							
Surrogate: 4-Bromofluorobenzene	*51.8*		*ug/L*	*50.00*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*50.4*		*ug/L*	*50.00*		*101*	*70-130*			
Surrogate: Toluene-d8	*48.8*		*ug/L*	*50.00*		*98*	*70-130*			
LCS (P8E0080-BS1)				Prepared & Analyzed: 05/02/18						
1,1,1,2-Tetrachloroethane	20.9	0.50	ug/L	20.00		105	70-130			
1,1,1-Trichloroethane	20.9	0.50	ug/L	20.00		105	70-130			
1,1,2,2-Tetrachloroethane	21.1	0.50	ug/L	20.00		106	70-130			
1,1,2-Trichloroethane	20.0	0.50	ug/L	20.00		100	70-130			
1,1-Dichloroethane	20.9	0.50	ug/L	20.00		105	70-130			
1,1-Dichloroethylene	21.7	0.50	ug/L	20.00		109	70-130			
1,1-Dichloropropylene	21.2	0.50	ug/L	20.00		106	70-130			
1,2,3-Trichlorobenzene	19.1	0.50	ug/L	20.00		95	70-130			
1,2,3-Trichloropropane	19.0	0.50	ug/L	20.00		95	70-130			
1,2,4-Trichlorobenzene	20.4	0.50	ug/L	20.00		102	70-130			
1,2,4-Trimethylbenzene	21.2	0.50	ug/L	20.00		106	70-130			
1,2-Dibromo-3-chloropropane	20.5	2.0	ug/L	20.00		102	70-130			
1,2-Dibromoethane	20.1	0.50	ug/L	20.00		101	70-130			
1,2-Dichlorobenzene	20.4	0.50	ug/L	20.00		102	70-130			
1,2-Dichloroethane	21.2	0.50	ug/L	20.00		106	70-130			
1,2-Dichloropropane	21.2	0.50	ug/L	20.00		106	70-130			
1,3,5-Trimethylbenzene	21.4	0.50	ug/L	20.00		107	70-130			
1,3-Dichlorobenzene	20.2	0.50	ug/L	20.00		101	70-130			
1,3-Dichloropropane	21.5	0.50	ug/L	20.00		108	70-130			
1,4-Dichlorobenzene	19.0	0.50	ug/L	20.00		95	70-130			

ECS Carolinas, LLP (Raleigh)
Attn: Sarah Kordon
9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No: WBS# 35494.1.1
R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

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 P8E0080 - SM6200 B										
LCS (P8E0080-BS1)				Prepared & Analyzed: 05/02/18						
2,2-Dichloropropane	20.9	2.0	ug/L	20.00		105	70-130			
2-Chlorotoluene	20.1	0.50	ug/L	20.00		100	70-130			
4-Chlorotoluene	20.5	0.50	ug/L	20.00		102	70-130			
4-Isopropyltoluene	21.6	0.50	ug/L	20.00		108	70-130			
Acetone	38.6	10	ug/L	40.00		97	40-160			
Benzene	21.4	0.50	ug/L	20.00		107	70-130			
Bromobenzene	19.4	0.50	ug/L	20.00		97	70-130			
Bromochloromethane	19.4	0.50	ug/L	20.00		97	70-130			
Bromodichloromethane	21.2	0.50	ug/L	20.00		106	70-130			
Bromoform	21.1	0.50	ug/L	20.00		105	70-130			
Bromomethane	13.5	1.0	ug/L	20.00		68	60-140			
Carbon Tetrachloride	20.9	0.50	ug/L	20.00		104	70-130			
Chlorobenzene	19.8	0.50	ug/L	20.00		99	70-130			
Chloroethane	18.0	0.50	ug/L	20.00		90	60-140			
Chloroform	20.5	0.50	ug/L	20.00		102	70-130			
Chloromethane	17.3	0.50	ug/L	20.00		87	60-140			
cis-1,2-Dichloroethylene	19.4	0.50	ug/L	20.00		97	70-130			
cis-1,3-Dichloropropylene	22.4	0.50	ug/L	20.00		112	70-130			
Dibromochloromethane	21.7	0.50	ug/L	20.00		109	70-130			
Dibromomethane	20.7	0.50	ug/L	20.00		104	70-130			
Dichlorodifluoromethane	16.0	1.0	ug/L	20.00		80	60-140			
Ethanol	646	200	ug/L	500.0		129	60-140			
Ethylbenzene	20.9	0.50	ug/L	20.00		105	70-130			
Hexachlorobutadiene	19.8	2.0	ug/L	20.00		99	70-130			
Isopropyl Ether	20.6	0.50	ug/L	20.00		103	70-130			
Isopropylbenzene (Cumene)	21.5	0.50	ug/L	20.00		108	70-130			
m,p-Xylenes	42.5	1.0	ug/L	40.00		106	70-130			
Methyl Butyl Ketone (2-Hexanone)	20.0	1.0	ug/L	20.00		100	60-140			
Methyl Ethyl Ketone (2-Butanone)	19.6	5.0	ug/L	20.00		98	60-140			
Methyl Isobutyl Ketone	20.0	1.0	ug/L	20.00		100	60-140			
Methylene Chloride	20.6	2.0	ug/L	20.00		103	70-130			
Methyl-tert-Butyl Ether	19.5	1.0	ug/L	20.00		98	70-130			
Naphthalene	18.8	1.0	ug/L	20.00		94	70-130			
n-Butylbenzene	21.6	0.50	ug/L	20.00		108	70-130			
n-Propylbenzene	21.0	0.50	ug/L	20.00		105	70-130			
o-Xylene	21.2	0.50	ug/L	20.00		106	70-130			
sec-Butylbenzene	21.4	0.50	ug/L	20.00		107	70-130			
Styrene	21.3	0.50	ug/L	20.00		106	70-130			
tert-Butylbenzene	21.3	0.50	ug/L	20.00		107	70-130			
Tetrachloroethylene	20.3	0.50	ug/L	20.00		102	70-130			
Toluene	21.4	0.50	ug/L	20.00		107	70-130			
trans-1,2-Dichloroethylene	21.3	0.50	ug/L	20.00		107	70-130			
trans-1,3-Dichloropropylene	22.8	0.50	ug/L	20.00		114	70-130			
Trichloroethylene	20.9	0.50	ug/L	20.00		105	70-130			
Trichlorofluoromethane	17.8	0.50	ug/L	20.00		89	60-140			
Vinyl acetate	22.0	5.0	ug/L	20.00		110	60-140			

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9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No: WBS# 35494.1.1
R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

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 P8E0080 - SM6200 B										
LCS (P8E0080-BS1)				Prepared & Analyzed: 05/02/18						
Vinyl chloride	18.3	0.50	ug/L	20.00		92	60-140			
Xylenes, total	63.7	1.5	ug/L	60.00		106	70-130			
Surrogate: 4-Bromofluorobenzene	*51.2*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*50.4*		*ug/L*	*50.00*		*101*	*70-130*			
Surrogate: Toluene-d8	*48.6*		*ug/L*	*50.00*		*97*	*70-130*			
LCS Dup (P8E0080-BSD1)				Prepared & Analyzed: 05/02/18						
1,1,1,2-Tetrachloroethane	21.1	0.50	ug/L	20.00		105	70-130	0.7	20	
1,1,1-Trichloroethane	20.5	0.50	ug/L	20.00		102	70-130	2	20	
1,1,2,2-Tetrachloroethane	21.2	0.50	ug/L	20.00		106	70-130	0.05	20	
1,1,2-Trichloroethane	20.4	0.50	ug/L	20.00		102	70-130	2	20	
1,1-Dichloroethane	19.5	0.50	ug/L	20.00		97	70-130	7	20	
1,1-Dichloroethylene	20.5	0.50	ug/L	20.00		103	70-130	6	20	
1,1-Dichloropropylene	21.1	0.50	ug/L	20.00		105	70-130	0.8	20	
1,2,3-Trichlorobenzene	19.3	0.50	ug/L	20.00		97	70-130	1	20	
1,2,3-Trichloropropane	19.6	0.50	ug/L	20.00		98	70-130	3	20	
1,2,4-Trichlorobenzene	20.0	0.50	ug/L	20.00		100	70-130	2	20	
1,2,4-Trimethylbenzene	21.1	0.50	ug/L	20.00		105	70-130	0.5	20	
1,2-Dibromo-3-chloropropane	20.8	2.0	ug/L	20.00		104	70-130	1	20	
1,2-Dibromoethane	20.2	0.50	ug/L	20.00		101	70-130	0.3	20	
1,2-Dichlorobenzene	20.0	0.50	ug/L	20.00		100	70-130	2	20	
1,2-Dichloroethane	21.1	0.50	ug/L	20.00		106	70-130	0.5	20	
1,2-Dichloropropane	20.8	0.50	ug/L	20.00		104	70-130	2	20	
1,3,5-Trimethylbenzene	21.1	0.50	ug/L	20.00		105	70-130	2	20	
1,3-Dichlorobenzene	19.6	0.50	ug/L	20.00		98	70-130	3	20	
1,3-Dichloropropane	21.0	0.50	ug/L	20.00		105	70-130	3	20	
1,4-Dichlorobenzene	19.3	0.50	ug/L	20.00		97	70-130	2	20	
2,2-Dichloropropane	20.3	2.0	ug/L	20.00		101	70-130	3	20	
2-Chlorotoluene	20.2	0.50	ug/L	20.00		101	70-130	0.7	20	
4-Chlorotoluene	20.2	0.50	ug/L	20.00		101	70-130	2	20	
4-Isopropyltoluene	21.2	0.50	ug/L	20.00		106	70-130	2	20	
Acetone	36.9	10	ug/L	40.00		92	40-160	4	20	
Benzene	20.9	0.50	ug/L	20.00		104	70-130	2	20	
Bromobenzene	19.9	0.50	ug/L	20.00		100	70-130	3	20	
Bromochloromethane	20.2	0.50	ug/L	20.00		101	70-130	4	20	
Bromodichloromethane	20.5	0.50	ug/L	20.00		103	70-130	3	20	
Bromoform	21.3	0.50	ug/L	20.00		107	70-130	1	20	
Bromomethane	13.4	1.0	ug/L	20.00		67	60-140	1	20	
Carbon Tetrachloride	20.9	0.50	ug/L	20.00		105	70-130	0.2	20	
Chlorobenzene	19.4	0.50	ug/L	20.00		97	70-130	2	20	
Chloroethane	16.9	0.50	ug/L	20.00		85	60-140	6	20	
Chloroform	19.7	0.50	ug/L	20.00		99	70-130	4	20	
Chloromethane	16.4	0.50	ug/L	20.00		82	60-140	5	20	
cis-1,2-Dichloroethylene	18.9	0.50	ug/L	20.00		95	70-130	2	20	
cis-1,3-Dichloropropylene	21.8	0.50	ug/L	20.00		109	70-130	3	20	
Dibromochloromethane	21.1	0.50	ug/L	20.00		106	70-130	3	20	
Dibromomethane	20.0	0.50	ug/L	20.00		100	70-130	4	20	

ECS Carolinas, LLP (Raleigh)
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9001 Glenwood Ave.
Raleigh, NC 27617

Project: NCDOT Faircloth Property

Project No: WBS# 35494.1.1
R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

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 P8E0080 - SM6200 B										
LCS Dup (P8E0080-BSD1)				Prepared & Analyzed: 05/02/18						
Dichlorodifluoromethane	15.4	1.0	ug/L	20.00		77	60-140	4	20	
Ethanol	539	200	ug/L	500.0		108	60-140	18	20	
Ethylbenzene	20.0	0.50	ug/L	20.00		100	70-130	5	20	
Hexachlorobutadiene	20.2	2.0	ug/L	20.00		101	70-130	2	20	
Isopropyl Ether	20.1	0.50	ug/L	20.00		100	70-130	2	20	
Isopropylbenzene (Cumene)	21.5	0.50	ug/L	20.00		107	70-130	0.3	20	
m,p-Xylenes	41.8	1.0	ug/L	40.00		105	70-130	2	20	
Methyl Butyl Ketone (2-Hexanone)	20.5	1.0	ug/L	20.00		102	60-140	2	20	
Methyl Ethyl Ketone (2-Butanone)	19.8	5.0	ug/L	20.00		99	60-140	1	20	
Methyl Isobutyl Ketone	19.8	1.0	ug/L	20.00		99	60-140	0.7	20	
Methylene Chloride	19.7	2.0	ug/L	20.00		98	70-130	5	20	
Methyl-tert-Butyl Ether	19.6	1.0	ug/L	20.00		98	70-130	0.4	20	
Naphthalene	18.8	1.0	ug/L	20.00		94	70-130	0	20	
n-Butylbenzene	21.3	0.50	ug/L	20.00		106	70-130	1	20	
n-Propylbenzene	20.7	0.50	ug/L	20.00		104	70-130	2	20	
o-Xylene	20.5	0.50	ug/L	20.00		103	70-130	3	20	
sec-Butylbenzene	21.3	0.50	ug/L	20.00		106	70-130	0.8	20	
Styrene	20.1	0.50	ug/L	20.00		100	70-130	6	20	
tert-Butylbenzene	20.8	0.50	ug/L	20.00		104	70-130	2	20	
Tetrachloroethylene	19.6	0.50	ug/L	20.00		98	70-130	3	20	
Toluene	20.7	0.50	ug/L	20.00		104	70-130	3	20	
trans-1,2-Dichloroethylene	20.6	0.50	ug/L	20.00		103	70-130	4	20	
trans-1,3-Dichloropropylene	22.4	0.50	ug/L	20.00		112	70-130	2	20	
Trichloroethylene	20.4	0.50	ug/L	20.00		102	70-130	2	20	
Trichlorofluoromethane	17.4	0.50	ug/L	20.00		87	60-140	2	20	
Vinyl acetate	22.5	5.0	ug/L	20.00		112	60-140	2	20	
Vinyl chloride	17.4	0.50	ug/L	20.00		87	60-140	5	20	
Xylenes, total	62.4	1.5	ug/L	60.00		104	70-130	2	20	
Surrogate: 4-Bromofluorobenzene	*51.1*		*ug/L*	*50.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*50.6*		*ug/L*	*50.00*		*101*	*70-130*			
Surrogate: Toluene-d8	*49.9*		*ug/L*	*50.00*		*100*	*70-130*			

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R-2511

Prism Work Order: 8040469
Time Submitted: 4/24/2018 2:30:00PM

Volatile Organic Compounds by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8E0030 - 504.1										
Blank (P8E0030-BLK1)				Prepared & Analyzed: 05/01/18						
1,2-Dibromoethane (EDB)	BRL	0.020	ug/L							
LCS (P8E0030-BS1)				Prepared & Analyzed: 05/01/18						
1,2-Dibromoethane (EDB)	0.243	0.020	ug/L	0.2514		97	70-130			
LCS Dup (P8E0030-BSD1)				Prepared & Analyzed: 05/01/18						
1,2-Dibromoethane (EDB)	0.248	0.020	ug/L	0.2514		99	70-130	2	20	

Sample Extraction Data

Prep Method: 504.1

Lab Number	Batch	Initial	Final	Date/Time
8040469-01	P8E0030	32.98 mL	35 mL	05/01/18 14:45
8040469-02	P8E0030	31.45 mL	35 mL	05/01/18 14:45

Prep Method: SM6200 B

Lab Number	Batch	Initial	Final	Date/Time
8040469-01	P8E0080	10 mL	10 mL	05/02/18 10:21
8040469-02	P8E0080	10 mL	10 mL	05/02/18 10:21
8040469-02	P8E0080	10 mL	10 mL	05/02/18 10:21

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 1 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: WBS: 35494.1.1 R-2511 Faircloth

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: WBS 35494.1.1

Address: _____

Client Company Name: ECS Raleigh

Report To/Contact Name: SARAH KORDON

Reporting Address: 9001 Glenwood Ave Raleigh, NC

Phone: 919 6168145 Fax (Yes) (No):

Email Address: SKORDON@ECSLIMITED.COM

EDD Type: PDF X Excel ___ Other ___

Site Location Name: Faircloth Property

Site Location Physical Address: Beaufort, County

Purchase Order No./Billing Reference 4300330940

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: IR5-7 Observed: 4.0 °C / Corr: 3.4 °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 6200B VOC	ANALYSIS REQUESTED 504.1 EDB	REMARKS	PRISM LAB ID NO.
SS-1-TW	4/19/2018	14:25	Water				HCl	X	X		01
SS-9-TW	"	13:50	Water				HCl	X	X		02

Sampler's Signature _____ Sampled By (Print Name) SARAH KORDON Affiliation ECS Southeast

PRESS DOWN FIRMLY - 3 COPIES

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)	Received By: (Signature)		
Relinquished By: (Signature)	Received By: (Signature)	Date	
Relinquished By: (Signature)	Received For Prism Laboratories By:	Date 4-24-18	14:30

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. 8040469

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