

## PROJECT SPECIAL PROVISIONS GEOENVIRONMENTAL

### **CONTAMINATED SOIL (2/28/2023)**

The Contractor's attention is directed to the fact that soil contaminated with petroleum hydrocarbon compounds exists within the project area. The known areas of contamination are indicated on corresponding plans sheets. Information relating to these contaminated areas, sample locations, and investigation reports will be available at the following web address by navigating to the correct letting year and month then selecting, "Plans and Proposals", "R-2707D", "Individual Sheets/520 GeoEnvironmental":

<http://dotw-xfer01.dot.state.nc.us/dsplan/>

Petroleum contaminated soil may be encountered during any earthwork activities on the project. The Contractor shall only excavate those soils that the Engineer designates necessary to complete a particular task. The Engineer shall determine if soil is contaminated based on areas shown on the plans, petroleum odors, and unusual soil staining. Contaminated soil not required to be excavated is to remain in place and undisturbed. Undisturbed soil shall remain in place, whether contaminated or not. The Contractor shall transport all contaminated soil excavated from the project to a facility licensed to accept contaminated soil.

In the event that a stockpile is needed, the stockpile shall be created within the property boundaries of the source material and in accordance with the Diagram for Temporary Containment and Treatment of Petroleum-Contaminated Soil per North Carolina Department of Environmental Quality's (NCDEQ) Division of Waste Management UST Section GUIDELINES FOR EX SITU PETROLEUM CONTAMINATED SOIL REMEDIATION. If the volume of contaminated material exceeds available space on site, the Contractor shall obtain a permit from the NCDEQ UST Section's Regional Office for off-site temporary storage. The Contractor shall provide copies of disposal manifests completed per the disposal facilities requirements and weigh tickets to the Engineer.

### **Measurement and Payment:**

The quantity of contaminated soil hauled and disposed of shall be the actual number of tons of material, which has been acceptably transported and weighed with certified scales as documented by disposal manifests and weigh tickets. The quantity of contaminated soil, measured as provided above, shall be paid for at the contract unit price per ton for "Hauling and Disposal of Petroleum Contaminated Soil".

The above price and payment shall be full compensation for all work covered by this section, including, but not limited to stockpiling, loading, transportation, weighing, laboratory testing, disposal, equipment, decontamination of equipment, labor, and personal protective equipment.

Payment shall be made under:

#### **Pay Item**

Hauling and Disposal of Petroleum Contaminated Soil

**Pay Unit**  
Ton

DocuSigned by  
  
Ethan J. Caldwell  
02/28/2023  
E9A1CFAC49A241





**North Carolina Department of Transportation**  
**Preliminary Site Assessment**  
**State Project: R-2707D**  
**WBS Element: 34497.1.2**  
**Cleveland County**

**Parcel 012**  
**Cleveland Vocational Industries**  
**650 North Post Road**  
**Shelby, North Carolina**  
**May 14, 2019**

**Wood Environment and Infrastructure Solutions, Inc.**  
**Project: 1883R2707**

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## **1.0 INTRODUCTION**

In response to the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated March 27, 2019, Wood Environment & Infrastructure Solutions, Inc. (Wood) has performed a Preliminary Site Assessment (PSA) for Parcel 012. The investigation was conducted in accordance with Wood's Technical and Cost proposal dated April 5, 2019 and revised April 11, 2019. NCDOT contracted Wood to perform the PSA at the parcel, within the area to be affected by future road construction activities, in order to identify potential impacts from the former use of the property.

The parcel is located 650 North Post Road along the northern side of Lowman Road as shown on the Vicinity Map, **Figure 1**. It is identified as Parcel 012, the Cleveland Vocational Industries property, (Site) within the NCDOT R-2707D design file. The parcel is in Shelby of Cleveland County, North Carolina. At the time of this PSA, the parcel was occupied by Cleveland Vocational Industries, Inc. The area of investigation within the parcel is shown on **Figure 2**.

The following report describes our subsurface field investigation at the Site and presents on-site UVF soil analyses, and metals and polychlorinated biphenyl (PCB) analysis to evaluate soil contamination within the Site.

### **1.1 Site History**

Based on our historical review, this facility has been present since at least 2003. The Site is not identified on the North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Facility Database registry and no known groundwater incidents are identified at the Site. The facility is listed as RCRA non-generator (NCS000002119) with no RCRA violations reported and is also a registered solid waste recycling center (SWRCY). Review of historical aerial imagery indicates large quantities of materials, assumed to be metal or electronics associated with recycling operations, have been stored within the area of investigation since at least 2006.

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## **1.2 Site Description**

The Site is located in a mixed-use commercial and residential area of Shelby in Cleveland County and covers approximately 9.5 acres. The majority of the Site is occupied by a 75,776 square-foot office/light industrial building and paved-parking areas. The area of investigation was located on the eastern portion of the Site behind the Site building. This area included disturbed ground surface with materials associated with recycling operations such as television sets and wooden pallets. A photographic log of the property is included as **Appendix A**.

## **2.0 GEOLOGY**

### **2.1 Regional Geology**

The Site is located within the Inner Piedmont Belt of the Piedmont Physiographic Province of North Carolina. According to the 1985 State Geologic Map of North Carolina, the area is underlain by Biotite Gneiss and Schist.

### **2.2 Site Geology**

Site geology was observed through the advancement of 12 shallow soil borings advanced via a direct-push rig (P12-SB1 to P12-SB12). Figure 2 presents the boring locations and site layout. Boring depth targeted ranged between 4 and 12 feet below ground surface (bgs). Soils encountered in the borings consisted mostly of red to brown to tan clayey and sandy silts. No petroleum odors or staining were observed in the borings and groundwater was not encountered. Based on observations of topography of the Site vicinity, the groundwater flow direction is inferred to be generally to the northeast. Boring logs are presented in **Appendix B**.

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## 3.0 FIELD ACTIVITIES

### 3.1 Preliminary Activities

Prior to commencing field sampling activities at the Site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was created including the Site-specific health and safety information necessary for the field activities. North Carolina 811 was contacted on April 9, 2019 to report the proposed sampling activities and subsequently notify all affected utilities for the parcel. Probe Utility Locating (PUL) was retained by Wood to perform utility locating at the Site. South Atlantic Environmental Drilling and Construction Co. Inc. (SAEDACCO) from Fort Mill, South Carolina was retained by Wood to perform the direct-push sampling and RED Lab instrumentation was scheduled for the use in the on-site UVF analysis.

Wood understands that acquisition of the right-of-way is necessary for the construction of the US 74 – Shelby Bypass. Boring locations were strategically placed within the parcel to maximize the opportunity to encounter potential contaminated soil resulting from previous activities and materials storage relating to Site metals and electronics recycling operations.

### 3.2 Site Reconnaissance

Wood personnel performed a Site reconnaissance with property owner notification on April 9, 2019. During the Site reconnaissance, the area was visually examined for the presence of any areas/obstructions that could potentially affect the subsurface investigation. Discarded television sets and wooden pallets were noted to be scattered throughout the investigation area.

### 3.3 Soil Sampling

In advance of drilling activities, PUL performed utility locating at the Site on April 10, 2019. On April 17, 2019, Wood and SAEDACCO mobilized to the Site to advanced 12 soil borings via direct-push rig across the area of investigation to depths ranging from 4 to 12 feet bgs. Borings were advanced to a minimum depth of 4 feet, as the sources of potential impacts were ground surface storage of materials on the ground surface and NCDOT R-2707D design files indicate shallow soil disturbance or cutting during road construction activities. Borings that were advanced deeper (8-12 feet) were chosen for deeper potential

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contaminant screening and observation of underlying soil characteristics. The borings locations focused in the areas where previous Site activities and materials storage relating to metals and electronics recycling operations had likely occurred.

The purpose of the soil sampling was to determine if a release had impacted the Site and if so, to estimate the volume of impacted soil that might require special handling during NCDOT construction activities. Soil sampling was performed utilizing direct-push methods accompanied by field screening. To minimize potential for cross-contamination between boring locations with the direct-push rig, a new PVC liner (tube) was inserted into the sampler for each soil interval. Wood conducted field screening for volatile organic compounds (VOCs) of the soil borings with a photoionization detector (PID). The soil borings were screened with the PID at approximate two-foot intervals. A portion of the interval of the soil boring exhibiting the highest PID reading was retained for analysis of total petroleum hydrocarbons (TPH), diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylene (BTEX), total aromatics, and polycyclic aromatic hydrocarbons (PAH) soil via on-site ultraviolet fluorescence (UVF). Thirteen total samples were collected from the Site from the borings for UVF on-site analysis.

For borings P12-SB2 to SB5 and P12-SB7 to SB12, the remaining portion of the interval of the soil boring exhibiting the highest PID reading was retained for laboratory analysis, placed in laboratory provided containers and immediately placed on ice. The samples were delivered under standard chain-of-custody protocol via courier to Prism Laboratories, Inc. in Charlotte, North Carolina and analyzed for eight Resource Conservation and Recovery Act (RCRA) metals via EPA methods 6010/7471 and PCBs via EPA Method 8082A by Prism Laboratories, Inc. (Prism) in Charlotte, North Carolina. Ten total samples were collected from the Site borings for metals and PCB analysis.

## 4.0 SOIL SAMPLING RESULTS

Based on PID field screening and UVF hydrocarbon analysis from April 17, 2019, evidence of petroleum hydrocarbon impacts were not identified within the area of investigation.

#### 4.1 Soil Screening and UVF Analyses

PID readings for the 12 borings ranged from zero parts per million (ppm) in sample P12-SB11-0-2 collected between the ground surface and two feet bgs to 7.9 ppm in sample P12-SB4-2-4 collected between two and four feet bgs. The PID field screening results are summarized in **Table 1** and provided on the boring logs in Appendix B.

Results from the on-site UVF petroleum soil analyses are presented in **Table 2**, with instrument generated tables in **Appendix C**. Several categories of analyses were measured such as: DRO, GRO, TPH, PAHs, and total aromatics. **Figure 3** presents the GRO and DRO results at each boring.

Elevated TPH values above the NCDEQ Action Limit of 50 milligrams per kilogram (mg/kg) for GRO or 100 mg/kg for DRO were not detected in the 13 samples collected from the borings advanced at the Site.

GRO was detected in sample P12-SB6-0-2 at a concentration of 0.97 mg/kg, while DRO was detected in samples P12-SB6-0-2 at 0.62 mg/kg and P12-SB7-0-2 at 0.07 mg/kg. The hydrocarbon results from the QED QROS Hydrocarbon Analyzer are provided in Appendix C.

#### 4.2 Laboratory Analyses

The laboratory analytical report and chain-of-custody form for the soil sample analyses conducted by Prism is included in **Appendix D**. The results of the ten soil samples analyzed for eight RCRA Metals and PCBs by Prism are summarized in **Tables 3** and **4**, as well as below:

- Concentrations of arsenic, barium, total chromium, and lead were identified in each of the ten soil samples collected at the site. In addition, concentrations of mercury were identified in two samples collected at the site with four other mercury detections J-flagged, indicating the values were identified above the method detection limit but below the reporting limit and are considered an estimate. Furthermore, a J-flagged cadmium concentration was identified in sample P12-SB11.

- The concentrations of arsenic identified in samples P12-SB2 to P12-SB5 and P12-SB7 to P12-SB11 exceeded the EPA Composite Worker Soil Carcinogenic Target Risk of 1e-06 (TR) Regional Screening Level (RSL) for arsenic of 3.0 mg/kg and ranged from 3.4 mg/kg in sample P12-SB7 to 8.0 mg/kg in sample P12-SB11. The arsenic concentration identified in sample P12-SB12 did not exceed the EPA Composite Worker Soil TR RSL for arsenic.
- The concentrations of total chromium identified in each of the ten samples exceeded the NCDEQ Soil-to-Water Maximum Soil Contaminant Concentration (MSCC) for total chromium of 5.4 mg/kg and the EPA Composite Worker Soil TR RSL for chromium (VI) of 6.3 mg/kg. Total chromium concentrations identified ranged from 9.3 mg/kg in sample P12-SB2 to 46 in sample P12-SB11. Note, separate EPA RSLs are established for chromium (III) and chromium (VI) variants. Speciated chromium samples were not analyzed as part of this assessment. The EPA Composite Worker Soil TR RSL for chromium (VI) of 6.3 mg/kg was conservatively compared to these samples.
- The barium, cadmium, lead and mercury concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs.
- The PCB off-site analysis did not identify detectable concentrations in the ten samples collected from the Site.

## 5.0 CONCLUSIONS

Based on the Site observations, UVF analysis, and laboratory analysis, petroleum-impacted soil contamination was not identified, and as a result the NCDEQ Action levels of 100 mg/kg for DRO and 50 mg/kg for GRO were not exceeded. Undetected PCB Aroclors indicates no impact in the sampled borings.

Concentrations of arsenic identified in some of the soil samples and total chromium concentrations identified in each of the soil samples exceeded their respective EPA Composite Worker Soil TR RSLs. In addition, the concentrations of total chromium identified exceeded the NCDEQ Soil-to-Water MSCC for total chromium. The concentrations of

arsenic and total chromium identified in the soil samples collected at the Site are within the naturally occurring trace element content of soils as identified in the EPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW874 (dated April 1983), page 273, Table 6.46. Based on the absence of petroleum and PCB-impacted soils identified at the Site and that the concentrations of arsenic and total chromium were identified within naturally occurring background levels, Wood does not consider the metal concentrations to indicate a release has occurred at the Site.

## **6.0 RECOMMENDATIONS**

Based on these PSA results, Wood does not recommend further assessment in the area of investigation or special soil handling during construction.

## **TABLES**

**Table 1: Summary of PID Screening Results**  
**Parcel 012 - Cleveland Vocational Industries**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Boring ID	Depth of Sample Interval	PID Reading
P12-SB1	0-2	3.8
P12-SB1	10-12	4.8
P12-SB2	2-4	6.7
P12-SB3	2-4	7.1
P12-SB4	2-4	7.9
P12-SB5	2-4	5.1
P12-SB6	0-2	6.8
P12-SB7	0-2	6.5
P12-SB8	2-4	3.4
P12-SB9	0-2	0.8
P12-SB10	0-2	1.2
P12-SB11	0-2	0.0
P12-SB12	0-2	0.1

**Notes:**

1. Samples collected on April 17, 2019
2. Depths shown in feet below ground surface (bgs)
3. PID = Photoionization Detector
4. PID readings shown in parts per million (ppm)

Prepared By/Date: RPD 4/26/2019

Checked By/Date: DRH 5/6/2019

**Table 2: Summary of UVF Petroleum Soil Results**  
**Parcel 012 - Cleveland Vocational Industries**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

<b>Sample ID Number</b>	<b>Sample Depth</b>	<b>BTEX</b>	<b>GRO</b>	<b>DRO</b>	<b>PAHs</b>
P12-SB1-0-2	0-2	<0.49	<0.49	<0.19	<0.01
P12-SB1-10-12	10-12	<0.45	<0.45	<0.18	<0.009
P12-SB2-2-4	2-4	<0.51	<0.51	<0.2	<0.01
P12-SB3-0-2	0-2	<0.42	<0.42	<0.17	<0.008
P12-SB4-2-4	2-4	<0.6	<0.6	<0.24	<0.01
P12-SB5-2-4	2-4	<0.52	<0.52	<0.21	<0.01
P12-SB6-0-2	0-2	<0.54	0.97	0.62	0.06
P12-SB7-0-2	0-2	<0.53	<0.53	0.07	0.006
P12-SB8-2-4	2-4	<0.37	<0.37	<0.15	<0.007
P12-SB9-0-2	0-2	<0.4	<0.4	<0.16	<0.008
P12-SB10-0-2	0-2	<0.37	<0.37	<0.15	<0.007
P12-SB11-0-2	0-2	<0.36	<0.36	<0.15	<0.007
P12-SB12-0-2	0-2	<0.35	<0.35	<0.14	<0.007
<b>NC State Action Level</b>		<b>N/A</b>	<b>50</b>	<b>100</b>	<b>N/A</b>

**Notes:**

1. Samples collected on April 17, 2019
2. Depths shown in feet below ground surface (bgs)
3. Concentrations shown in milligrams per kilogram (mg/kg)
4. BTEX = Benzene, toluene, ethylbenzene, xylene
5. GRO = Gasoline Range Organics
6. DRO = Diesel Range Organics
7. PAHs = Polycyclic aromatic hydrocarbons
8. N/A = Not applicable

Prepared By/Date: RPD 4/26/2019

Checked By/Date: DRH 5/6/2019

**Table 3: Summary of RCRA Metal Analytical Results**  
**Parcel 012 - Cleveland Vocational Industries**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P12-SB2	P12-SB3	P12-SB4	P12-SB5	P12-SB7	P12-SB8	P12-SB9	P12-SB10	P12-SB11	P12-SB12	Soil-to-Water MSCCs	Industrial/Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non-Carcinogenic HI RSLs	Trace Element Content of Soils*
Sample Depth	2-4	0-2	2-4	2-4	0-2	2-4	0-2	0-2	0-2	0-2					
Arsenic	<u>3.8</u>	<u>4.9</u>	<u>4.6</u>	<u>3.5</u>	<u>3.4</u>	<u>3.8</u>	<u>6.3</u>	<u>4.6</u>	<u>8.0</u>	2.5	NE	NE	3.0	48	1-50
Barium	29	38	34	85	82	49	18	31	51	15	290	81,000	NE	22,000	100-3,000
Cadmium	<0.039	<0.040	<0.040	<0.043	<0.040	<0.040	<0.041	<0.041	0.18J	<0.040	NE	NE	9,300	98	0.01-0.7
Chromium	<b>9.3</b>	<b>25</b>	<b>28</b>	<b>33</b>	<b>30</b>	<b>31</b>	<b>39</b>	<b>29</b>	<b>46</b>	<b>26</b>	5.4	1,226	(III) NE (VI) 6.3	(III) 180,000 (VI) 350	1-1,000
Lead	41	40	31	49	67	47	24	23	42	20	270	400	NE	800	2-200
Mercury	<0.020	<0.020	0.039 J	<0.022	0.063	0.054 J	0.041 J	0.050 J	0.12	<0.020	NE	NE	NE	4.6	0.01-0.3
Selenium	<0.32	<0.32	<0.33	<0.35	<0.33	<0.33	<0.33	<0.33	<0.72	<0.33	NE	NE	NE	580	0.1-2
Silver	<0.036	<0.036	<0.036	<0.039	<0.036	<0.036	<0.037	<0.037	<0.040	<0.036	0.3	2,044	NE	580	0.01-5

**Notes:**

1. Samples collected on April 17, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
5. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
6. Bold value indicates concentration exceeds Soil-to-Water MSCC
7. Shaded value indicates concentration exceeds Industrial/Commercial MSCC
8. Underlined value indicates concentration exceeds EPA RSL for either Carcinogenic TR or Non-carcinogenic HI
9. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
10. Separate RSLs are established for Chromium (III) and (VI) variants. Speciated chromium samples were not analyzed during this assessment
11. NE = Not established

\*Reference: USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April 1983) page 273, Table 6.46

Prepared By/Date: RPD 5/2/2019  
 Checked By/Date: DRH 5/6/2019

**Table 4: Summary of Polychlorinated Biphenyls Analytical Results**  
**Parcel 012 - Cleveland Vocational Industries**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P12-SB2	P12-SB3	P12-SB4	P12-SB5	P12-SB7	P12-SB8	P12-SB9	P12-SB10	P12-SB11	P12-SB12	EPA Composite Worker Soil Carcinogenic TR RSL	EPA Composite Worker Soil Non-Carcinogenic HI RSL
Sample Depth	2-4	0-2	2-4	2-4	0-2	2-4	0-2	0-2	0-2	0-2		
Aroclor 1016	<0.020	<0.021	<0.021	<0.023	<0.021	<0.021	<0.021	<0.022	<0.023	<0.021	27	5.1
Aroclor 1221	<0.046	<0.047	<0.047	<0.051	<0.047	<0.047	<0.048	<0.049	<0.052	<0.047	0.83	NE
Aroclor 1232	<0.015	<0.015	<0.015	<0.017	<0.015	<0.015	<0.016	<0.016	<0.017	<0.015	0.72	NE
Aroclor 1242	<0.015	<0.016	<0.016	<0.017	<0.016	<0.016	<0.016	<0.016	<0.017	<0.016	0.95	NE
Aroclor 1248	<0.012	<0.012	<0.012	<0.013	<0.012	<0.012	<0.012	<0.012	<0.013	<0.012	0.95	NE
Aroclor 1254	<0.014	<0.015	<0.015	<0.016	<0.015	<0.015	<0.015	<0.015	<0.016	<0.015	0.97	1.5
Aroclor 1260	<0.017	<0.017	<0.017	<0.019	<0.018	<0.018	<0.018	<0.018	<0.019	<0.018	0.99	NE

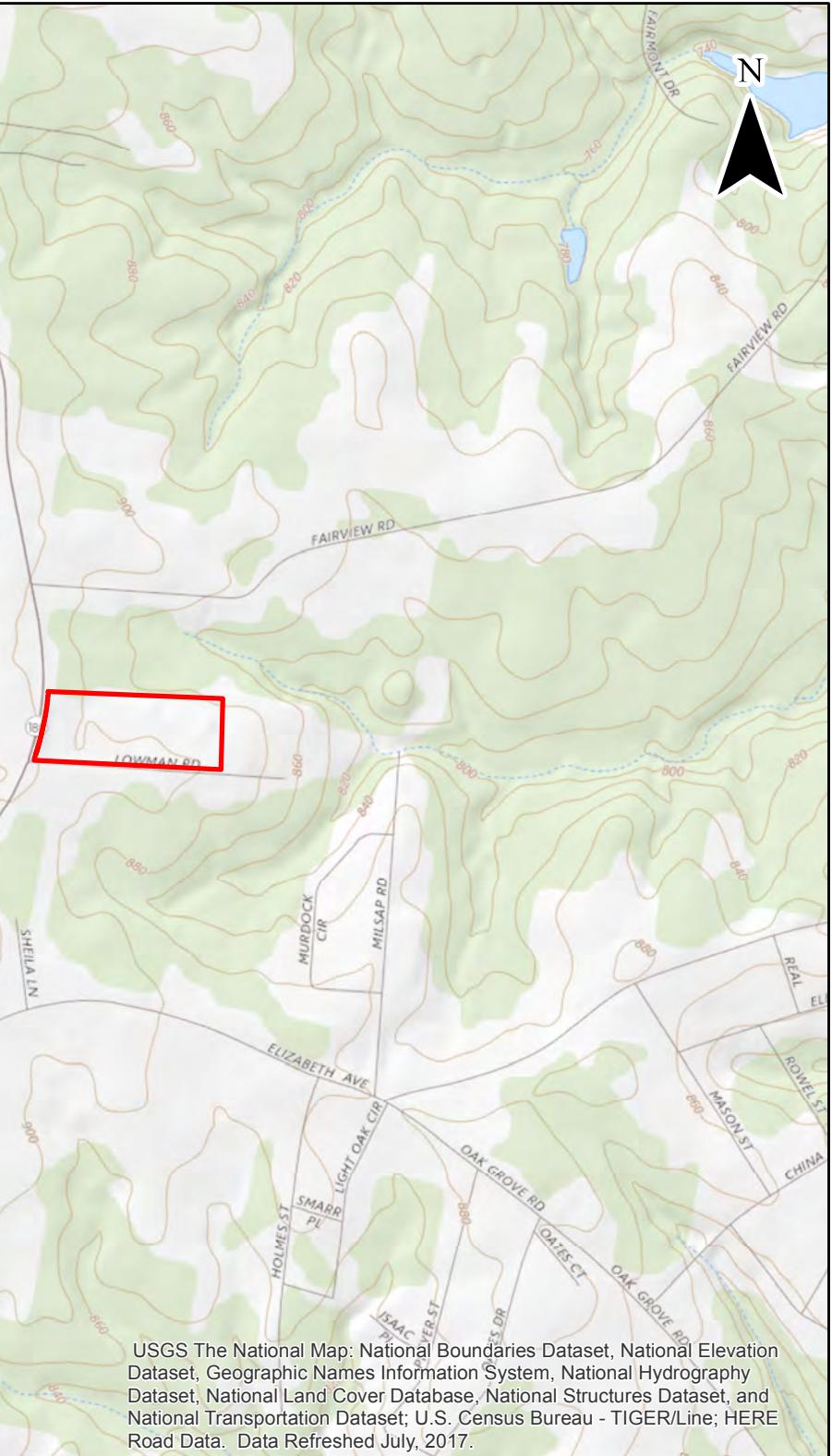
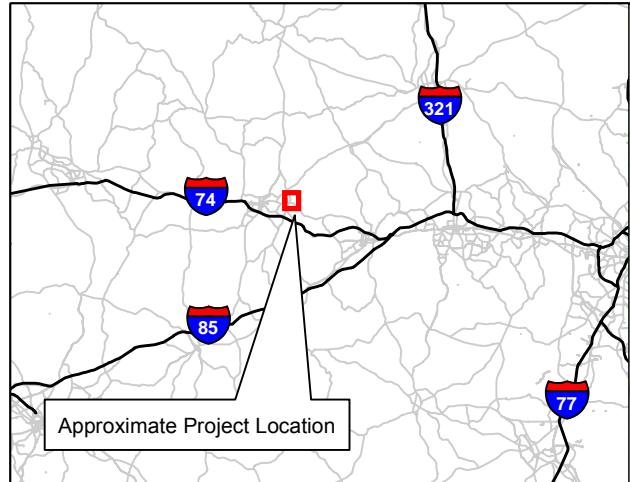
**Notes:**

1. Samples collected on April 17, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
5. Underlined value indicates concentration exceeds EPA RSL for either Carcinogenic TR or Non-carcinogenic HI
6. NE = Not established

Prepared By/Date: RPD 5/2/2019

Checked By/Date: DRH 5/6/2019

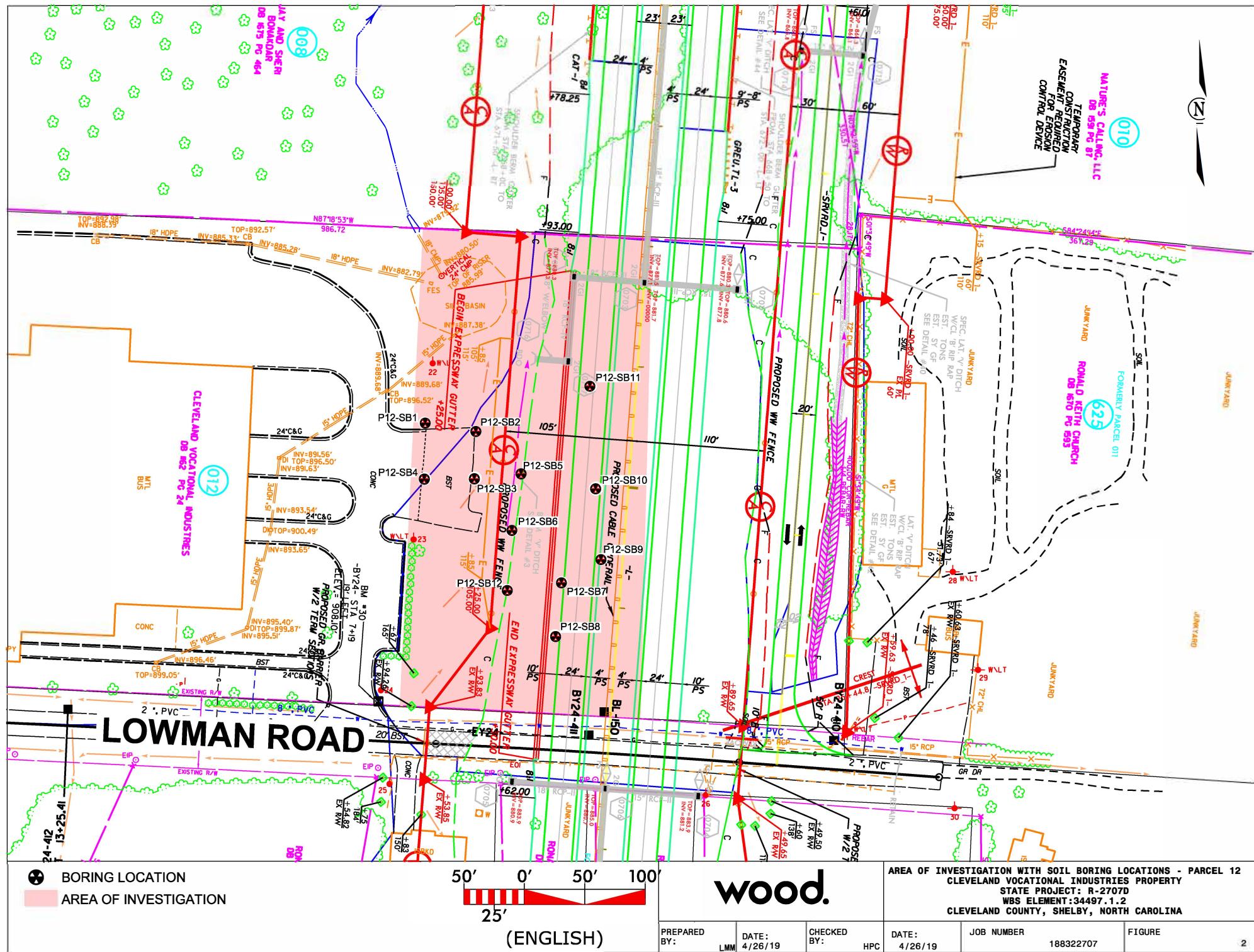
## **FIGURES**

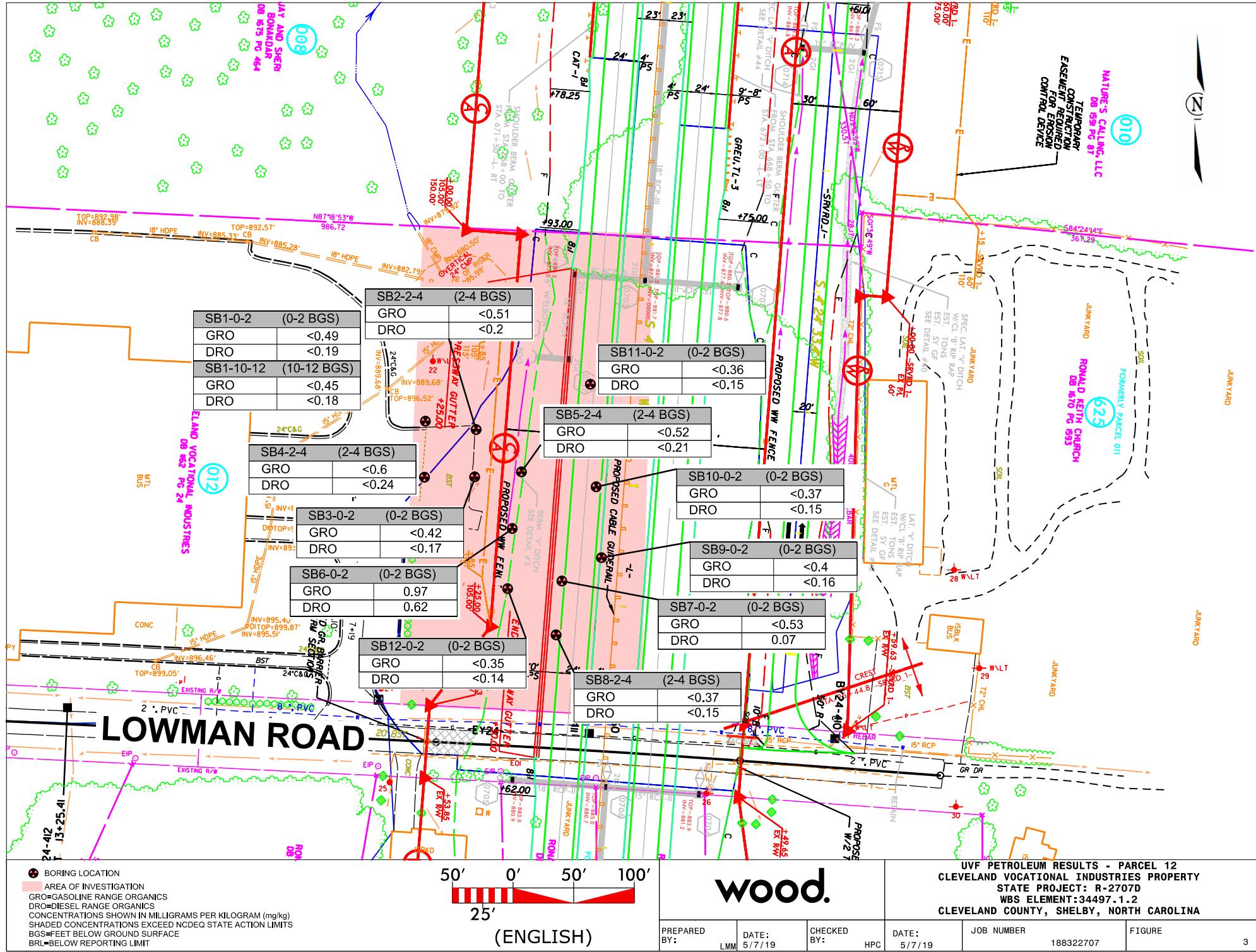


**wood.**

**SITE VICINITY**  
**R2707D - Parcel 012**  
**Cleveland Vocational Industries**  
**650 North Post Road**  
**Shelby, North Carolina 28150**

Site Boundary





**APPENDIX A**  
**PHOTOGRAPHIC LOG**



**PHOTO 1:**

View of discarded television sets on pallets, facing east.

Photo taken 8/2/2018 during Wood's Phase I activities.



**PHOTO 2:**

View of discarded television sets and pallets, facing northeast.

Photo taken 4/17/2019.



**PHOTO 3:**

View of direct-push sampling activities.

Photo taken 4/17/2019.

**APPENDIX B**  
**BORING LOGS**

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB1</b>	BORING DEPTH (ft)	<b>12</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Brown clayey SILT, moist, organics and gravel	
<b>2</b>	3.8		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	3.6		
<b>5</b>			
<b>6</b>	3.8		
<b>7</b>			
<b>8</b>	4.3	Tan, white, pale orange, sandy SILT, moist	
<b>9</b>			
<b>10</b>	4.4		
<b>11</b>			
<b>12</b>	4.8		
<b>13</b>		Boring terminated at 12ft. UVF sample taken at 0-2 and 10-12ft.	
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB2</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>			PROJECT NAME	<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>			WEATHER CONDITIONS	<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>			DRILL RIG	<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Brown clayey SILT, moist, organics and gravel	
<b>2</b>	6.3		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	6.7		
<b>5</b>			
<b>6</b>	6.7	Tan, white, pale orange, sandy SILT, moist	
<b>7</b>			
<b>8</b>	6.4		
<b>9</b>		Boring terminated at 8ft. UVF sample taken at 2-4ft.	
<b>10</b>		Sample for offsite analysis sampled at 2-4ft.	
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB3</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Brown clayey SILT, moist, organics and gravel	
<b>2</b>	<b>7.1</b>	Red brown silty CLAY, moist	
<b>3</b>			
<b>4</b>	<b>7.1</b>		
<b>5</b>			
<b>6</b>	<b>6.3</b>	Tan, white, pale orange, sandy SILT, moist	
<b>7</b>			
<b>8</b>	<b>5.8</b>		
<b>9</b>			
<b>10</b>		Boring terminated at 8ft. UVF sample taken at 0-2ft. Sample for off-site analysis sampled at 0-2ft.	
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: **JRM**Page: **1**

**SOIL BORING FIELD WORKSHEET**

BORING #	P12-SB4	BORING DEPTH (ft)	8	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/17/2019	WEATHER CONDITIONS	82°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Asphalt, gravel, SAND	
2	7.8		
3		Red brown silty CLAY, moist	
4	7.9		
5			
6	7.4	Orange tan, white, SILT, moist	
7			
8	7.5		
9		Boring terminated at 8ft. UVF sample taken at 2-4ft.	
10		Sample for offsite analysis sampled at 2-4ft.	
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB5</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Asphalt, gravel, SAND	
<b>2</b>	4.5		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	5.1		
<b>5</b>			
<b>6</b>	5.0	Orange tan, white, SILT, moist	
<b>7</b>			
<b>8</b>	4.7		
<b>9</b>			
<b>10</b>		Boring terminated at 8ft. UVF sample taken at 2-4ft. Sample for off-site analysis sampled at 2-4ft.	
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB6</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Asphalt, gravel, SAND	
<b>2</b>	6.8		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	5.6		
<b>5</b>			
<b>6</b>	5.7	Orange tan, white, SILT, moist	
<b>7</b>			
<b>8</b>	6.0		
<b>9</b>		Boring terminated at 8ft. UVF sample taken at 0-2ft.	
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB7</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Asphalt, gravel, SAND	
<b>2</b>	6.5		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	6.4		
<b>5</b>			
<b>6</b>	6.0	Orange tan, white, SILT, moist	
<b>7</b>			
<b>8</b>	5.2		
<b>9</b>		Boring terminated at 8ft. UVF sample taken at 0-2ft.	
<b>10</b>		Sample for off-site analysis sampled at 0-2ft.	
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB8</b>	BORING DEPTH (ft)	<b>8</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Asphalt, gravel, SAND	
<b>2</b>	3.2		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	3.4		
<b>5</b>			
<b>6</b>	2.8	Orange tan, white, SILT, moist	
<b>7</b>			
<b>8</b>	2.6		
<b>9</b>		Boring terminated at 8ft. UVF sample taken at 0-2ft.	
<b>10</b>		Sample for off-site analysis sampled at 0-2ft.	
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB9</b>	BORING DEPTH (ft)	<b>4</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>			
<b>2</b>	0.8		
<b>3</b>			
<b>4</b>	0.8		
<b>5</b>			
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB10</b>	BORING DEPTH (ft)	<b>4</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>			PROJECT NAME	<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>			WEATHER CONDITIONS	<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>			DRILL RIG	<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>			
<b>2</b>	1.2		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	0.3		
<b>5</b>			
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB11</b>	BORING DEPTH (ft)	<b>4</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>			
<b>2</b>	0.0		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	0.0		
<b>5</b>			
<b>6</b>		Boring terminated at 4ft. UVF sample taken at 0-2ft. Sample for off-site analysis sampled at 0-2ft.	
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P12-SB12</b>	BORING DEPTH (ft)	<b>4</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>SAEDACCO</b>	DRILL RIG			<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>			
<b>2</b>	0.1		
<b>3</b>		Red brown silty CLAY, moist	
<b>4</b>	0.0		
<b>5</b>			
<b>6</b>		Boring terminated at 4ft. UVF sample taken at 0-2ft. Sample for off-site analysis sampled at 0-2ft.	
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**APPENDIX C**

**RESULTS FROM ON-SITE UVF SOIL ANALYSES**



## Hydrocarbon Analysis Results

**Client:** Wood  
**Address:** 2801 Yorkmont Rd  
Charlotte, NC

**Samples taken** Wednesday, April 17, 2019  
**Samples extracted** Wednesday, April 17, 2019  
**Samples analysed** Wednesday, April 17, 2019

Contact: Helen Corley

**Operator** Derick Haydin

**Project:** NCDOT Shelby

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) = Modified Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only.



## Hydrocarbon Analysis Results

**Client:** Wood  
**Address:** 2801 Yorkmont Rd  
Charlotte, NC

**Samples taken** Wednesday, April 17, 2019  
**Samples extracted** Wednesday, April 17, 2019  
**Samples analysed** Wednesday, April 17, 2019

Contact: Helen Corley

**Operator** Derick Haydin

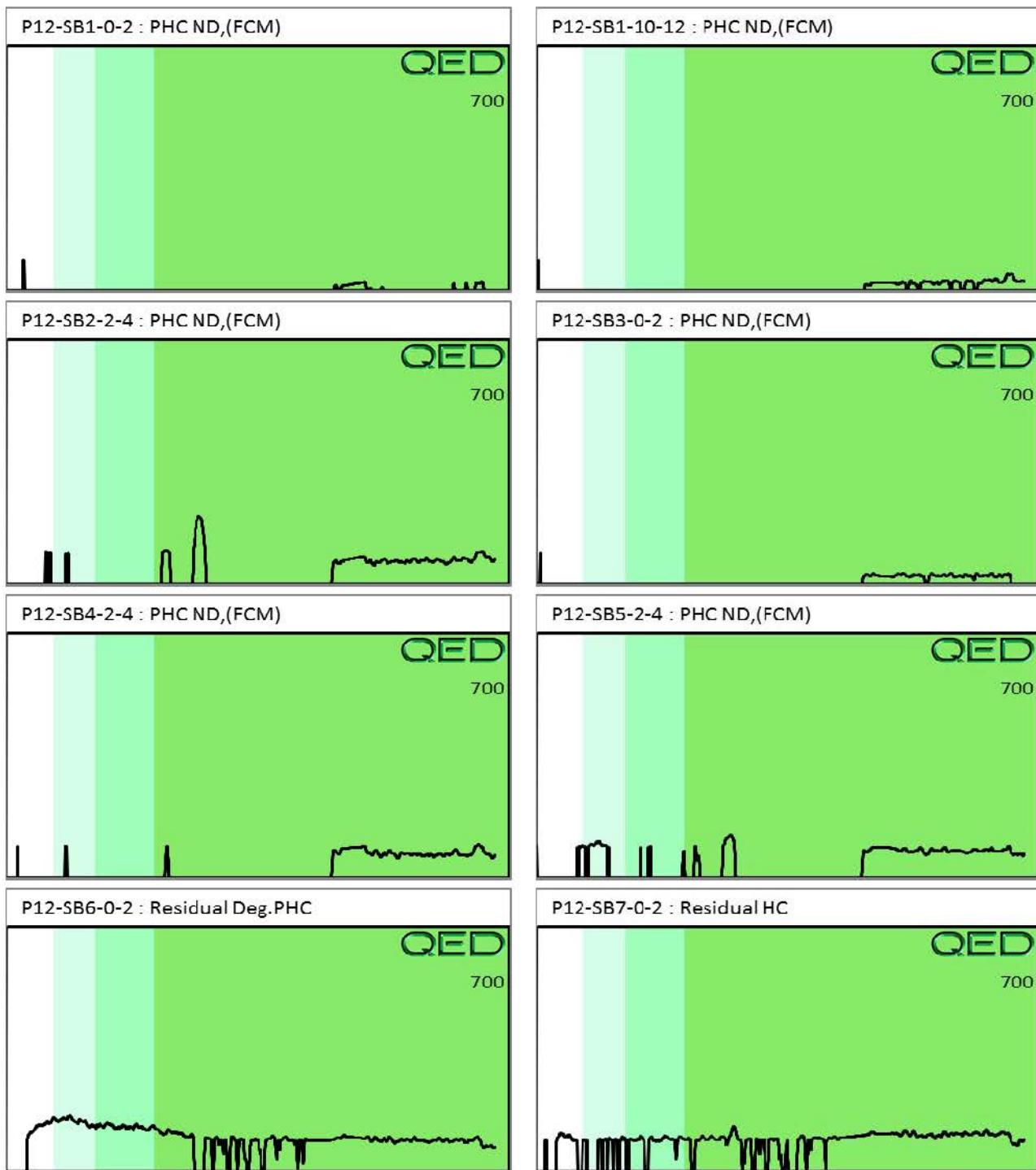
**Project:** NCDOT Shelby

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) = Modified Result.

% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only.



P12-SB8-2-4 : PHC ND,(FCM)

**QED**  
700

P12-SB9-0-2 : PHC ND,(FCM)

**QED**  
700

P12-SB10-2 : PHC ND,(FCM)

**QED**  
700

P12-SB11-0-2 : PHC ND,(FCM)

**QED**  
700

P12-SB12-0-2 : PHC ND,(FCM)

**QED**  
700

**APPENDIX D**

**LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY**

**FORM**



Full-Service Analytical &  
Environmental Solutions

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

## Case Narrative

5/1/19 14:21

Wood Environ. & Infrastructure Solutions (Charl)  
John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project: NCDOT Shelby R-2707 D&E  
Project No.: 1883R2707 Parcel 12  
Lab Submittal Date: 04/18/2019  
Prism Work Order: 9040296

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

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

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

Respectfully,

**PRISM LABORATORIES, INC.**

Robbi A. Jones  
President/Project Manager

Reviewed By Robbi A. Jones  
President/Project Manager

### Data Qualifiers Key Reference:

- DM Sample diluted and RL increased due to the matrix.  
J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
M Matrix spike outside of the control limits.  
PS Post Spike recovery is outside of the control limits.  
U Not Detected at the MDL  
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.

This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.



Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P12-SB2	9040296-01	Solid	04/17/19 9:55	04/18/19 8:55
P12-SB3	9040296-02	Solid	04/17/19 10:00	04/18/19 8:55
P12-SB4	9040296-03	Solid	04/17/19 10:10	04/18/19 8:55
P12-SB5	9040296-04	Solid	04/17/19 10:23	04/18/19 8:55
P12-SB7	9040296-05	Solid	04/17/19 10:45	04/18/19 8:55
P12-SB8	9040296-06	Solid	04/17/19 10:52	04/18/19 8:55
P12-SB9	9040296-07	Solid	04/17/19 12:30	04/18/19 8:55
P12-SB10	9040296-08	Solid	04/17/19 12:35	04/18/19 8:55
P12-SB11	9040296-09	Solid	04/17/19 12:40	04/18/19 8:55
P12-SB12	9040296-10	Solid	04/17/19 12:45	04/18/19 8:55

Samples were received in good condition at 3.4 degrees C unless otherwise noted.



Full-Service Analytical &  
Environmental Solutions

## Summary of Detections

05/01/2019

Prism Work Order: 9040296

Prism ID	Client ID	Parameter	Method	Result	Units
9040296-01	P12-SB2	Arsenic	6010D	3.8	mg/kg dry
9040296-01	P12-SB2	Barium	6010D	29	mg/kg dry
9040296-01	P12-SB2	Chromium	6010D	9.3	mg/kg dry
9040296-01	P12-SB2	Lead	6010D	41	mg/kg dry
9040296-02	P12-SB3	Arsenic	6010D	4.9	mg/kg dry
9040296-02	P12-SB3	Barium	6010D	38	mg/kg dry
9040296-02	P12-SB3	Chromium	6010D	25	mg/kg dry
9040296-02	P12-SB3	Lead	6010D	40	mg/kg dry
9040296-03	P12-SB4	Mercury	7471B	0.039	J
9040296-03	P12-SB4	Arsenic	6010D	4.6	mg/kg dry
9040296-03	P12-SB4	Barium	6010D	34	mg/kg dry
9040296-03	P12-SB4	Chromium	6010D	28	mg/kg dry
9040296-03	P12-SB4	Lead	6010D	31	mg/kg dry
9040296-04	P12-SB5	Arsenic	6010D	3.5	mg/kg dry
9040296-04	P12-SB5	Barium	6010D	85	mg/kg dry
9040296-04	P12-SB5	Chromium	6010D	33	mg/kg dry
9040296-04	P12-SB5	Lead	6010D	49	mg/kg dry
9040296-05	P12-SB7	Mercury	7471B	0.063	mg/kg dry
9040296-05	P12-SB7	Arsenic	6010D	3.4	mg/kg dry
9040296-05	P12-SB7	Barium	6010D	82	mg/kg dry
9040296-05	P12-SB7	Chromium	6010D	30	mg/kg dry
9040296-05	P12-SB7	Lead	6010D	67	mg/kg dry
9040296-06	P12-SB8	Mercury	7471B	0.054	J
9040296-06	P12-SB8	Arsenic	6010D	3.8	mg/kg dry
9040296-06	P12-SB8	Barium	6010D	49	mg/kg dry
9040296-06	P12-SB8	Chromium	6010D	31	mg/kg dry
9040296-06	P12-SB8	Lead	6010D	47	mg/kg dry
9040296-07	P12-SB9	Mercury	7471B	0.041	J
9040296-07	P12-SB9	Arsenic	6010D	6.3	mg/kg dry
9040296-07	P12-SB9	Barium	6010D	18	mg/kg dry
9040296-07	P12-SB9	Chromium	6010D	39	mg/kg dry
9040296-07	P12-SB9	Lead	6010D	24	mg/kg dry
9040296-08	P12-SB10	Mercury	7471B	0.050	J
9040296-08	P12-SB10	Arsenic	6010D	4.6	mg/kg dry
9040296-08	P12-SB10	Barium	6010D	31	mg/kg dry
9040296-08	P12-SB10	Chromium	6010D	29	mg/kg dry
9040296-08	P12-SB10	Lead	6010D	23	mg/kg dry
9040296-09	P12-SB11	Mercury	7471B	0.12	mg/kg dry
9040296-09	P12-SB11	Arsenic	6010D	8.0	DM
9040296-09	P12-SB11	Barium	6010D	51	mg/kg dry
9040296-09	P12-SB11	Cadmium	6010D	0.18	DM, J
9040296-09	P12-SB11	Chromium	6010D	46	DM

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Prism ID	Client ID	Parameter	Method	Result	Units
9040296-09	P12-SB11	Lead	6010D	42	DM mg/kg dry
9040296-10	P12-SB12	Arsenic	6010D	2.5	mg/kg dry
9040296-10	P12-SB12	Barium	6010D	15	mg/kg dry
9040296-10	P12-SB12	Chromium	6010D	26	mg/kg dry
9040296-10	P12-SB12	Lead	6010D	20	mg/kg dry

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB2  
Prism Sample ID: 9040296-01  
Prism Work Order: 9040296  
Time Collected: 04/17/19 09:55  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	86.3	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.020 U	mg/kg dry	0.058	0.020	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1221	0.046 U	mg/kg dry	0.12	0.046	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1242	0.015 U	mg/kg dry	0.058	0.015	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.058	0.012	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1254	0.014 U	mg/kg dry	0.058	0.014	1	8082A	4/18/19 21:11	ZRC	P9D0334
Aroclor 1260	0.017 U	mg/kg dry	0.058	0.017	1	8082A	4/18/19 21:11	ZRC	P9D0334
Surrogate									
Tetrachloro-m-xylene									
95 %									
Decachlorobiphenyl									
77 %									
34-182									
<b>Total Metals</b>									
Mercury	0.020 U	mg/kg dry	0.058	0.020	1	7471B	4/29/19 11:51	MMR	P9D0510
Arsenic	3.8	mg/kg dry	1.2	0.15	1	6010D	4/24/19 15:26	JAB	P9D0418
Barium	29	mg/kg dry	12	3.5	1	6010D	4/24/19 15:26	JAB	P9D0418
Cadmium	0.039 U	mg/kg dry	0.58	0.039	1	6010D	4/24/19 15:26	JAB	P9D0418
Chromium	9.3	mg/kg dry	1.2	0.088	1	6010D	4/24/19 15:26	JAB	P9D0418
Lead	41	mg/kg dry	1.2	0.19	1	6010D	4/24/19 15:26	JAB	P9D0418
Selenium	0.32 U	mg/kg dry	1.2	0.32	1	6010D	4/24/19 15:26	JAB	P9D0418
Silver	0.036 U	mg/kg dry	0.58	0.036	1	6010D	4/24/19 15:26	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB3  
Prism Sample ID: 9040296-02  
Prism Work Order: 9040296  
Time Collected: 04/17/19 10:00  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	85.0	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.021 U	mg/kg dry	0.059	0.021	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1221	0.047 U	mg/kg dry	0.12	0.047	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.059	0.016	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.059	0.012	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.059	0.015	1	8082A	4/18/19 21:23	ZRC	P9D0334
Aroclor 1260	0.017 U	mg/kg dry	0.059	0.017	1	8082A	4/18/19 21:23	ZRC	P9D0334
Surrogate									
Tetrachloro-m-xylene									
97 %									
Decachlorobiphenyl									
85 %									
36-182									
34-182									
<b>Total Metals</b>									
Mercury	0.020 U	mg/kg dry	0.059	0.020	1	7471B	4/29/19 12:04	MMR	P9D0510
Arsenic	4.9	mg/kg dry	1.2	0.16	1	6010D	4/24/19 15:53	JAB	P9D0418
Barium	38	mg/kg dry	12	3.5	1	6010D	4/24/19 15:53	JAB	P9D0418
Cadmium	0.040 U	mg/kg dry	0.59	0.040	1	6010D	4/24/19 15:53	JAB	P9D0418
Chromium	25	mg/kg dry	1.2	0.089	1	6010D	4/24/19 15:53	JAB	P9D0418
Lead	40	mg/kg dry	1.2	0.20	1	6010D	4/24/19 15:53	JAB	P9D0418
Selenium	0.32 U	mg/kg dry	1.2	0.32	1	6010D	4/24/19 15:53	JAB	P9D0418
Silver	0.036 U	mg/kg dry	0.59	0.036	1	6010D	4/24/19 15:53	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB4  
Prism Sample ID: 9040296-03  
Prism Work Order: 9040296  
Time Collected: 04/17/19 10:10  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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#### General Chemistry Parameters

% Solids	84.6	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
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#### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	0.021 U	mg/kg dry	0.059	0.021	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1221	0.047 U	mg/kg dry	0.12	0.047	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.059	0.016	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.059	0.012	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.059	0.015	1	8082A	4/18/19 21:36	ZRC	P9D0334
Aroclor 1260	0.017 U	mg/kg dry	0.059	0.017	1	8082A	4/18/19 21:36	ZRC	P9D0334

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	108 %	36-182
Decachlorobiphenyl	94 %	34-182

#### Total Metals

Mercury	0.039 J	mg/kg dry	0.059	0.020	1	7471B	4/29/19 12:13	MMR	P9D0510
Arsenic	4.6	mg/kg dry	1.2	0.16	1	6010D	4/24/19 16:01	JAB	P9D0418
Barium	34	mg/kg dry	12	3.5	1	6010D	4/24/19 16:01	JAB	P9D0418
Cadmium	0.040 U	mg/kg dry	0.59	0.040	1	6010D	4/24/19 16:01	JAB	P9D0418
Chromium	28	mg/kg dry	1.2	0.090	1	6010D	4/24/19 16:01	JAB	P9D0418
Lead	31	mg/kg dry	1.2	0.20	1	6010D	4/24/19 16:01	JAB	P9D0418
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/24/19 16:01	JAB	P9D0418
Silver	0.036 U	mg/kg dry	0.59	0.036	1	6010D	4/24/19 16:01	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB5  
Prism Sample ID: 9040296-04  
Prism Work Order: 9040296  
Time Collected: 04/17/19 10:23  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	77.7	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.023 U	mg/kg dry	0.064	0.023	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1221	0.051 U	mg/kg dry	0.13	0.051	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1232	0.017 U	mg/kg dry	0.13	0.017	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1242	0.017 U	mg/kg dry	0.064	0.017	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1248	0.013 U	mg/kg dry	0.064	0.013	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1254	0.016 U	mg/kg dry	0.064	0.016	1	8082A	4/18/19 21:49	ZRC	P9D0334
Aroclor 1260	0.019 U	mg/kg dry	0.064	0.019	1	8082A	4/18/19 21:49	ZRC	P9D0334
Surrogate									
Tetrachloro-m-xylene									
113 %									
Decachlorobiphenyl									
92 %									
36-182									
34-182									
<b>Total Metals</b>									
Mercury	0.022 U	mg/kg dry	0.064	0.022	1	7471B	4/29/19 12:18	MMR	P9D0510
Arsenic	3.5	mg/kg dry	1.3	0.17	1	6010D	4/24/19 16:10	JAB	P9D0418
Barium	85	mg/kg dry	13	3.9	1	6010D	4/24/19 16:10	JAB	P9D0418
Cadmium	0.043 U	mg/kg dry	0.64	0.043	1	6010D	4/24/19 16:10	JAB	P9D0418
Chromium	33	mg/kg dry	1.3	0.098	1	6010D	4/24/19 16:10	JAB	P9D0418
Lead	49	mg/kg dry	1.3	0.21	1	6010D	4/24/19 16:10	JAB	P9D0418
Selenium	0.35 U	mg/kg dry	1.3	0.35	1	6010D	4/24/19 16:10	JAB	P9D0418
Silver	0.039 U	mg/kg dry	0.64	0.039	1	6010D	4/24/19 16:10	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB7  
Prism Sample ID: 9040296-05  
Prism Work Order: 9040296  
Time Collected: 04/17/19 10:45  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.5	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.021 U	mg/kg dry	0.059	0.021	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1221	0.047 U	mg/kg dry	0.12	0.047	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.059	0.016	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.059	0.012	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.059	0.015	1	8082A	4/18/19 22:01	ZRC	P9D0334
Aroclor 1260	0.018 U	mg/kg dry	0.059	0.018	1	8082A	4/18/19 22:01	ZRC	P9D0334

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB8  
Prism Sample ID: 9040296-06  
Prism Work Order: 9040296  
Time Collected: 04/17/19 10:52  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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#### General Chemistry Parameters

% Solids	84.4	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
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#### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	0.021 U	mg/kg dry	0.059	0.021	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1221	0.047 U	mg/kg dry	0.12	0.047	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.059	0.016	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.059	0.012	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.059	0.015	1	8082A	4/18/19 22:14	ZRC	P9D0334
Aroclor 1260	0.018 U	mg/kg dry	0.059	0.018	1	8082A	4/18/19 22:14	ZRC	P9D0334
Surrogate						Recovery		Control Limits	
						Tetrachloro-m-xylene		106 %	
						Decachlorobiphenyl		36-182	
						94 %		34-182	

#### Total Metals

Mercury	0.054 J	mg/kg dry	0.059	0.021	1	7471B	4/29/19 12:27	MMR	P9D0510
Arsenic	3.8	mg/kg dry	1.2	0.16	1	6010D	4/24/19 16:27	JAB	P9D0418
Barium	49	mg/kg dry	12	3.6	1	6010D	4/24/19 16:27	JAB	P9D0418
Cadmium	0.040 U	mg/kg dry	0.59	0.040	1	6010D	4/24/19 16:27	JAB	P9D0418
Chromium	31	mg/kg dry	1.2	0.090	1	6010D	4/24/19 16:27	JAB	P9D0418
Lead	47	mg/kg dry	1.2	0.20	1	6010D	4/24/19 16:27	JAB	P9D0418
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/24/19 16:27	JAB	P9D0418
Silver	0.036 U	mg/kg dry	0.59	0.036	1	6010D	4/24/19 16:27	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB9  
Prism Sample ID: 9040296-07  
Prism Work Order: 9040296  
Time Collected: 04/17/19 12:30  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.2	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.021 U	mg/kg dry	0.060	0.021	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1221	0.048 U	mg/kg dry	0.12	0.048	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1232	0.016 U	mg/kg dry	0.12	0.016	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.060	0.016	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.060	0.012	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.060	0.015	1	8082A	4/18/19 22:26	ZRC	P9D0334
Aroclor 1260	0.018 U	mg/kg dry	0.060	0.018	1	8082A	4/18/19 22:26	ZRC	P9D0334
Surrogate									
Tetrachloro-m-xylene									
116 %									
Decachlorobiphenyl									
36-182									
108 %									
34-182									
<b>Total Metals</b>									
Mercury	0.041 J	mg/kg dry	0.060	0.021	1	7471B	4/29/19 12:32	MMR	P9D0510
Arsenic	6.3	mg/kg dry	1.2	0.16	1	6010D	4/24/19 16:36	JAB	P9D0418
Barium	18	mg/kg dry	12	3.6	1	6010D	4/24/19 16:36	JAB	P9D0418
Cadmium	0.041 U	mg/kg dry	0.60	0.041	1	6010D	4/24/19 16:36	JAB	P9D0418
Chromium	39	mg/kg dry	1.2	0.091	1	6010D	4/24/19 16:36	JAB	P9D0418
Lead	24	mg/kg dry	1.2	0.20	1	6010D	4/24/19 16:36	JAB	P9D0418
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/24/19 16:36	JAB	P9D0418
Silver	0.037 U	mg/kg dry	0.60	0.037	1	6010D	4/24/19 16:36	JAB	P9D0418

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Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB10  
Prism Sample ID: 9040296-08  
Prism Work Order: 9040296  
Time Collected: 04/17/19 12:35  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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#### General Chemistry Parameters

% Solids	82.2	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
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#### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	0.022 U	mg/kg dry	0.061	0.022	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1221	0.049 U	mg/kg dry	0.12	0.049	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1232	0.016 U	mg/kg dry	0.12	0.016	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.061	0.016	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.061	0.012	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.061	0.015	1	8082A	4/18/19 22:39	ZRC	P9D0334
Aroclor 1260	0.018 U	mg/kg dry	0.061	0.018	1	8082A	4/18/19 22:39	ZRC	P9D0334

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	112 %	36-182
Decachlorobiphenyl	99 %	34-182

#### Total Metals

Mercury	0.050 J	mg/kg dry	0.061	0.021	1	7471B	4/29/19 12:36	MMR	P9D0510
Arsenic	4.6	mg/kg dry	1.2	0.16	1	6010D	4/24/19 16:44	JAB	P9D0418
Barium	31	mg/kg dry	12	3.7	1	6010D	4/24/19 16:44	JAB	P9D0418
Cadmium	0.041 U	mg/kg dry	0.61	0.041	1	6010D	4/24/19 16:44	JAB	P9D0418
Chromium	29	mg/kg dry	1.2	0.092	1	6010D	4/24/19 16:44	JAB	P9D0418
Lead	23	mg/kg dry	1.2	0.20	1	6010D	4/24/19 16:44	JAB	P9D0418
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/24/19 16:44	JAB	P9D0418
Silver	0.037 U	mg/kg dry	0.61	0.037	1	6010D	4/24/19 16:44	JAB	P9D0418

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB11  
Prism Sample ID: 9040296-09  
Prism Work Order: 9040296  
Time Collected: 04/17/19 12:40  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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#### General Chemistry Parameters

% Solids	76.9	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
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#### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	0.023 U	mg/kg dry	0.065	0.023	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1221	0.052 U	mg/kg dry	0.13	0.052	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1232	0.017 U	mg/kg dry	0.13	0.017	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1242	0.017 U	mg/kg dry	0.065	0.017	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1248	0.013 U	mg/kg dry	0.065	0.013	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1254	0.016 U	mg/kg dry	0.065	0.016	1	8082A	4/22/19 13:05	ZRC	P9D0334
Aroclor 1260	0.019 U	mg/kg dry	0.065	0.019	1	8082A	4/22/19 13:05	ZRC	P9D0334

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	124 %	36-182
Decachlorobiphenyl	105 %	34-182

#### Total Metals

Mercury	0.12	mg/kg dry	0.065	0.022	1	7471B	4/29/19 12:41	MMR	P9D0510
Arsenic	8.0 DM	mg/kg dry	2.6	0.34	2	6010D	4/30/19 12:08	JAB	P9D0418
Barium	51	mg/kg dry	13	3.9	1	6010D	4/24/19 16:52	JAB	P9D0418
Cadmium	0.18 DM, J	mg/kg dry	1.3	0.088	2	6010D	4/30/19 12:08	JAB	P9D0418
Chromium	46 DM	mg/kg dry	2.6	0.20	2	6010D	4/30/19 12:08	JAB	P9D0418
Lead	42 DM	mg/kg dry	2.6	0.43	2	6010D	4/30/19 12:08	JAB	P9D0418
Selenium	0.72 UDM	mg/kg dry	2.6	0.72	2	6010D	4/30/19 12:08	JAB	P9D0418
Silver	0.040 U	mg/kg dry	0.65	0.040	1	6010D	4/24/19 16:52	JAB	P9D0418

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 12  
Sample Matrix: Solid

Client Sample ID: P12-SB12  
Prism Sample ID: 9040296-10  
Prism Work Order: 9040296  
Time Collected: 04/17/19 12:45  
Time Submitted: 04/18/19 08:55

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.6	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:13	KBS	P9D0556
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	0.021 U	mg/kg dry	0.059	0.021	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1221	0.047 U	mg/kg dry	0.12	0.047	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1232	0.015 U	mg/kg dry	0.12	0.015	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1242	0.016 U	mg/kg dry	0.059	0.016	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1248	0.012 U	mg/kg dry	0.059	0.012	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1254	0.015 U	mg/kg dry	0.059	0.015	1	8082A	4/22/19 13:18	ZRC	P9D0334
Aroclor 1260	0.018 U	mg/kg dry	0.059	0.018	1	8082A	4/22/19 13:18	ZRC	P9D0334
Surrogate									
Tetrachloro-m-xylene									
129 %									
Decachlorobiphenyl									
36-182									
106 %									
34-182									
<b>Total Metals</b>									
Mercury	0.020 U	mg/kg dry	0.059	0.020	1	7471B	4/29/19 13:13	MMR	P9D0510
Arsenic	2.5	mg/kg dry	1.2	0.16	1	6010D	4/24/19 17:17	JAB	P9D0418
Barium	15	mg/kg dry	12	3.5	1	6010D	4/24/19 17:17	JAB	P9D0418
Cadmium	0.040 U	mg/kg dry	0.59	0.040	1	6010D	4/24/19 17:17	JAB	P9D0418
Chromium	26	mg/kg dry	1.2	0.090	1	6010D	4/24/19 17:17	JAB	P9D0418
Lead	20	mg/kg dry	1.2	0.20	1	6010D	4/24/19 17:17	JAB	P9D0418
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/24/19 17:17	JAB	P9D0418
Silver	0.036 U	mg/kg dry	0.59	0.036	1	6010D	4/24/19 17:17	JAB	P9D0418

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No: 1883R2707 Parcel 12

Prism Work Order: 9040296  
Time Submitted: 4/18/2019 8:55:00AM

**Polychlorinated Biphenyls (PCBs) by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
<b>Batch P9D0334 - 3546</b>									
<b>Blank (P9D0334-BLK1)</b>									
Prepared & Analyzed: 04/18/19									
Aroclor 1016	BRL	0.050	mg/kg wet						
Aroclor 1221	BRL	0.10	mg/kg wet						
Aroclor 1232	BRL	0.10	mg/kg wet						
Aroclor 1242	BRL	0.050	mg/kg wet						
Aroclor 1248	BRL	0.050	mg/kg wet						
Aroclor 1254	BRL	0.050	mg/kg wet						
Aroclor 1260	BRL	0.050	mg/kg wet						
Surrogate: Tetrachloro-m-xylene	0.0403		mg/kg wet	0.03333		121	36-182		
Surrogate: Decachlorobiphenyl	0.0357		mg/kg wet	0.03333		107	34-182		
<b>LCS (P9D0334-BS1)</b>									
Prepared & Analyzed: 04/18/19									
Aroclor 1016	0.355	0.050	mg/kg wet	0.3333		107	64-151		
Aroclor 1260	0.333	0.050	mg/kg wet	0.3333		100	45-166		
Surrogate: Tetrachloro-m-xylene	0.0423		mg/kg wet	0.03333		127	36-182		
Surrogate: Decachlorobiphenyl	0.0363		mg/kg wet	0.03333		109	34-182		
<b>LCS Dup (P9D0334-BSD1)</b>									
Prepared & Analyzed: 04/18/19									
Aroclor 1016	0.381	0.050	mg/kg wet	0.3333		114	64-151	7	50
Aroclor 1260	0.345	0.050	mg/kg wet	0.3333		104	45-166	4	50
Surrogate: Tetrachloro-m-xylene	0.0423		mg/kg wet	0.03333		127	36-182		
Surrogate: Decachlorobiphenyl	0.0363		mg/kg wet	0.03333		109	34-182		
<b>Matrix Spike (P9D0334-MS1)</b>									
Source: 9040296-06 Prepared: 04/18/19 Analyzed: 04/22/19									
Aroclor 1016	0.432	0.059	mg/kg dry	0.3950	BRL	110	14-192		
Aroclor 1260	0.414	0.059	mg/kg dry	0.3950	BRL	105	10-192		
Surrogate: Tetrachloro-m-xylene	0.0521		mg/kg dry	0.03950		132	36-182		
Surrogate: Decachlorobiphenyl	0.0427		mg/kg dry	0.03950		108	34-182		

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel 12

Prism Work Order: 9040296  
 Time Submitted: 4/18/2019 8:55:00AM

**Polychlorinated Biphenyls (PCBs) by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0334 - 3546**

**Matrix Spike Dup (P9D0334-MSD1)**      Source: 9040296-06      Prepared: 04/18/19      Analyzed: 04/22/19

Aroclor 1016	0.419	0.059	mg/kg dry	0.3943	BRL	106	14-192	3	50
Aroclor 1260	0.383	0.059	mg/kg dry	0.3943	BRL	97	10-192	8	50
Surrogate: Tetrachloro-m-xylene	0.0461		mg/kg dry	0.03943		117	36-182		
Surrogate: Decachlorobiphenyl	0.0371		mg/kg dry	0.03943		94	34-182		

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel 12

Prism Work Order: 9040296  
 Time Submitted: 4/18/2019 8:55:00AM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0418 - 3050B**

<b>Blank (P9D0418-BLK1)</b>	Prepared & Analyzed: 04/24/19								
Arsenic	BRL	1.0	mg/kg wet						
Barium	BRL	10	mg/kg wet						
Cadmium	BRL	0.50	mg/kg wet						
Chromium	BRL	1.0	mg/kg wet						
Lead	BRL	1.0	mg/kg wet						
Selenium	BRL	1.0	mg/kg wet						
Silver	BRL	0.50	mg/kg wet						

<b>LCS (P9D0418-BS1)</b>	Prepared & Analyzed: 04/24/19								
Arsenic	11.9	1.0	mg/kg wet	12.50		95	80-120		
Barium	12.5	10	mg/kg wet	12.50		100	80-120		
Cadmium	12.1	0.50	mg/kg wet	12.50		97	80-120		
Chromium	12.4	1.0	mg/kg wet	12.50		99	80-120		
Lead	12.0	1.0	mg/kg wet	12.50		96	80-120		
Selenium	11.4	1.0	mg/kg wet	12.50		91	80-120		
Silver	4.65	0.50	mg/kg wet	5.000		93	80-120		

<b>Matrix Spike (P9D0418-MS1)</b>	<b>Source: 9040296-01</b>	Prepared & Analyzed: 04/24/19								
Arsenic	16.6	1.2	mg/kg dry	14.48	3.82	88	75-125			
Barium	50.2	12	mg/kg dry	14.48	28.7	148	75-125			M
Cadmium	12.2	0.58	mg/kg dry	14.48	BRL	84	75-125			
Chromium	26.0	1.2	mg/kg dry	14.48	9.31	115	75-125			
Lead	60.0	1.2	mg/kg dry	14.48	41.4	128	75-125			M
Selenium	10.8	1.2	mg/kg dry	14.48	BRL	75	75-125			
Silver	4.74	0.58	mg/kg dry	5.792	BRL	82	75-125			

<b>Matrix Spike Dup (P9D0418-MSD1)</b>	<b>Source: 9040296-01</b>	Prepared & Analyzed: 04/24/19								
Arsenic	16.1	1.2	mg/kg dry	14.48	3.82	85	75-125	3	20	
Barium	48.4	12	mg/kg dry	14.48	28.7	136	75-125	4	20	M
Cadmium	12.3	0.58	mg/kg dry	14.48	BRL	85	75-125	0.5	20	
Chromium	27.1	1.2	mg/kg dry	14.48	9.31	123	75-125	4	20	
Lead	58.8	1.2	mg/kg dry	14.48	41.4	120	75-125	2	20	
Selenium	10.9	1.2	mg/kg dry	14.48	BRL	75	75-125	0.5	20	
Silver	4.77	0.58	mg/kg dry	5.792	BRL	82	75-125	0.6	20	

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel 12

Prism Work Order: 9040296  
 Time Submitted: 4/18/2019 8:55:00AM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0418 - 3050B**

Post Spike (P9D0418-PS1)		Source: 9040296-01		Prepared & Analyzed: 04/24/19					
Arsenic	0.549		mg/L	0.5001	0.132	83	75-125		
Barium	1.42		mg/L	0.5000	0.992	86	75-125		
Cadmium	0.406		mg/L	0.5000	-0.00261	81	75-125		
Chromium	0.748		mg/L	0.5001	0.321	85	75-125		
Lead	1.78		mg/L	0.5001	1.43	71	75-125		PS
Selenium	0.366		mg/L	0.4999	-0.0240	73	75-125		PS
Silver	0.157		mg/L	0.2000	-0.0155	79	75-125		

**Batch P9D0510 - 7471B**

Blank (P9D0510-BLK1)		Prepared & Analyzed: 04/29/19							
Mercury	BRL	0.050	mg/kg wet						
LCS (P9D0510-BS1)		Prepared & Analyzed: 04/29/19							
Mercury	0.421	0.050	mg/kg wet	0.4167	101	80-120			
Matrix Spike (P9D0510-MS1)		Source: 9040296-01 Prepared & Analyzed: 04/29/19							
Mercury	0.469	0.058	mg/kg dry	0.4826	BRL	97	80-120		
Matrix Spike Dup (P9D0510-MSD1)		Source: 9040296-01 Prepared & Analyzed: 04/29/19							
Mercury	0.474	0.058	mg/kg dry	0.4826	BRL	98	80-120	1	20

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel 12

Prism Work Order: 9040296  
 Time Submitted: 4/18/2019 8:55:00AM

**General Chemistry Parameters - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0556 - Solids, Dry Weight**

Duplicate (P9D0556-DUP2)	Source: 9040296-01			Prepared & Analyzed: 04/30/19						
% Solids	86.4	0.100	% by Weight		86.3			0.06	20	
Duplicate (P9D0556-DUP3)	Source: 9040296-10			Prepared & Analyzed: 04/30/19						
% Solids	83.7	0.100	% by Weight		84.6			1	20	

### Sample Extraction Data

**Prep Method: Solids, Dry Weight**

Lab Number	Batch	Initial	Final	Date/Time
9040296-01	P9D0556	30 g	30 g	04/30/19 16:13
9040296-02	P9D0556	30 g	30 g	04/30/19 16:13
9040296-03	P9D0556	30 g	30 g	04/30/19 16:13
9040296-04	P9D0556	30 g	30 g	04/30/19 16:13
9040296-05	P9D0556	30 g	30 g	04/30/19 16:13
9040296-06	P9D0556	30 g	30 g	04/30/19 16:13
9040296-07	P9D0556	30 g	30 g	04/30/19 16:13
9040296-08	P9D0556	30 g	30 g	04/30/19 16:13
9040296-09	P9D0556	30 g	30 g	04/30/19 16:13
9040296-10	P9D0556	30 g	30 g	04/30/19 16:13

**Prep Method: 3546**

Lab Number	Batch	Initial	Final	Date/Time
9040296-01	P9D0334	30.18 g	10 mL	04/18/19 11:55
9040296-02	P9D0334	30.07 g	10 mL	04/18/19 11:55
9040296-03	P9D0334	30.2 g	10 mL	04/18/19 11:55
9040296-04	P9D0334	30.1 g	10 mL	04/18/19 11:55
9040296-05	P9D0334	30.18 g	10 mL	04/18/19 11:55
9040296-06	P9D0334	30.1 g	10 mL	04/18/19 11:55
9040296-07	P9D0334	30.02 g	10 mL	04/18/19 11:55
9040296-08	P9D0334	30.03 g	10 mL	04/18/19 11:55
9040296-09	P9D0334	30.2 g	10 mL	04/18/19 11:55
9040296-10	P9D0334	30.14 g	10 mL	04/18/19 11:55

**Prep Method: 3050B**

Lab Number	Batch	Initial	Final	Date/Time
9040296-01	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-02	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-03	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-04	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-05	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-06	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-07	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-08	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-09	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-09	P9D0418	2 g	50 mL	04/24/19 8:55
9040296-10	P9D0418	2 g	50 mL	04/24/19 8:55

**Prep Method: 7471B**

Lab Number	Batch	Initial	Final	Date/Time
9040296-01	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-02	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-03	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-04	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-05	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-06	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-07	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-08	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-09	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040296-10	P9D0510	0.6 g	50 mL	04/29/19 9:10

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449 Springbrook Road • Charlotte, NC 28217

Phone 704/529-6364 • Fax: 704/525-0409

**Client Company Name:** Novel E&E Solutions  
**Report To/Contact Name:** Helen Cooley/John Mees

**Reporting Address:** 2801 Hartman Rd., Suite 100  
Charlotte, NC 28208

**Phone:** 704 357 5649 **Fax (Yes)**   
**Email Address:** John.Mees@NovelEES.com

**EDD Type:**  **Excel**  **Other**

**Site Location Name:** Panel 12

**Site Location Physical Address:** Shelby, NC

# CHAIN OF CUSTODY RECORD

PAGE \_\_\_\_ OF \_\_\_\_ QUOTE # TO ENSURE PROPER BILLING: \_\_\_\_\_

 Project Name: NCDOT Shelly R2707

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: Sheriff

Address: \_\_\_\_\_

Purchase Order No./Billing Reference \_\_\_\_\_

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

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

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

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

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

 TEMP: Therm ID: 55 Observed 33 °C / Corr 34 °C

Samples INTACT upon arrival?		YES	NO	N/A
PROPER PRESERVATIVES indicated?				
Received WITHIN HOLDING TIMES?				
CUSTODY SEALS INTACT?				
VOLATILES rec'd W/OUT HEADSPACE?				
PROPER CONTAINERS used?				
TEMP: Therm ID: <u>55</u> Observed <u>33</u> °C / Corr <u>34</u> °C				

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

 Certification: NELAC DoD FL NC 

 SC                  OTHER                  N/A                 

 Water Chlorinated: YES  NO 

 Sample Iced Upon Collection: YES  NO 

SAMPLE DESCRIPTION	CLIENT	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	*TYPE SEE BELOW	NO.	SIZE	PRESERVE- TIVES TIVES	ANALYSIS REQUESTED				REMARKS	PRISM LAB ID NO.
									PCRA MTL POBS BOMA	PCRA MTL POBS BOMA	PCRA MTL POBS BOMA	PCRA MTL POBS BOMA		
P12-SB2		4/17/19	055	Soil	loose, Jur	1	4oz	None	X	X				01
P12-SB3			1000						X	X				03
P12-SB4			1010						X	X				04
P12-SB5			1023						X	X				05
P12-SB7			1045						X	X				06
P12-SB8			1052						X	X				07
P12-SB9			1230						X	X				08
P12-SB10			1235						X	X				09
P12-SB11			1240						X	X				10
P12-SB12			1245						X	X				

 Sampler's Signature: Rebekah

Sampled By (Print Name): \_\_\_\_\_

Affiliation: \_\_\_\_\_

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

 Relinquished By: (Signature): DJ

 Received By: (Signature): DJ

 Date: 4-18-19

 Military/Hours: 0830

Additional Comments: \_\_\_\_\_

Relinquished By: (Signature): DJ

 Received For Prism Laboratories By: DL

 Date: 4-18-19

Field Tech Fee: \_\_\_\_\_

Mileage: \_\_\_\_\_

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

Fed Ex  UPS  Hand-delivered  Prism Field Service  Other

 NPDES:  USF: 

 NC  SC  NC  SC

 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

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 NC  SC

 SEE REVERSE FOR  
TERMS & CONDITIONS

A = Amber

C = Clear

G = Glass

P = Plastic

TL = Teflon-Lined Cap

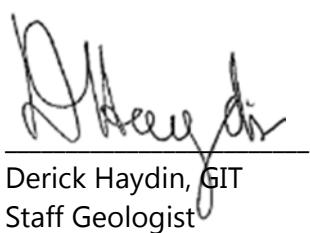
VOA = Volatile Organics Analysis (Zero Head Space)



**North Carolina Department of Transportation**  
**Preliminary Site Assessment**  
**State Project: R-2707D**  
**WBS Element: 34497.1.2**  
**Cleveland County**

**Parcel 623  
NCDOT Property  
275 Kemper Road  
Shelby, North Carolina  
May 17, 2019**

**Wood Environment & Infrastructure Solutions, Inc.  
Project: 1883R2707**

  
Derick Haydin, GIT  
Staff Geologist

  
  
John Maas, LG  
Senior Geologist

DocuSigned by:  
  
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## 1.0 INTRODUCTION

In response to the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated March 27, 2019, Wood environment & infrastructure Solutions, Inc. (Wood) has performed a Preliminary Site Assessment (PSA) for Parcel 623. The investigation was conducted in accordance with Wood's Technical and Cost proposal dated April 5, 2019 and revised April 11, 2019. NCDOT contracted Wood to perform the PSA at the parcel, within the area to be affected by future road construction activities, in order to identify potential impacts from the former use of the property.

The parcel is located at 275 Kemper Road along the northern side of Kemper Road as shown on the Vicinity Map, **Figure 1**. At the time of this PSA, the parcel was occupied by a pesticide/herbicide storage building, a pipe yard and an emulsified asphalt AST. It is identified as Parcel P623 and North Carolina State Highway and Public Works Commission property (the Site) within the NCDOT R-2707D design file. The parcel is in Shelby of Cleveland County, North Carolina. The area of investigation within the parcel is shown on **Figure 2**.

The following report describes our subsurface field investigation at the Site and presents laboratory analysis to evaluate soil contamination within the Site.

### 1.1 Site History

Based on our historical review, the on-site storage building has been present since at least 1950 and the pipe yard has been present since at least 1976. This Site was not identified on the North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Facility Database registry and no known groundwater incidents are identified at the Site. No files associated with the Site were available for review on the NCDEQ Laserfiche website. According to information provided to Wood by NCDOT, the emulsified asphalt AST area has previously been assessed and it was requested that this area not be included in the scope of this PSA.

### 1.2 Site Description

The Site is located in a mixed-use commercial and residential area of Shelby in Cleveland County and covers approximately 16.98 acres. The Site is occupied by a pesticide/herbicide

storage building, a pipe yard, an emulsified asphalt AST, and assorted road construction materials. The pesticide/ herbicide storage building is located approximately 3,208 feet east of the intersection of Kemper Road and East Marion Street. A photographic log of the property is included as **Appendix A**.

## **2.0 GEOLOGY**

### **2.1 Regional Geology**

The Site is located within the Inner Piedmont Belt of the Piedmont Physiographic Province of North Carolina. According to the 1985 State Geologic Map of North Carolina, the area is underlain by biotite, gneiss and schist.

### **2.2 Site Geology**

Site geology was observed through the advancement of seven shallow soil borings (P623-SB1 to P623-SB7). Soil borings P623-SB1 to P623-SB4 were advanced to a target depth of 12 feet below ground surface (bgs) and borings P623-SB5 to P623-SB7 were advanced to a target depth of four feet bgs. Figure 2 presents the boring locations and site layout. Soils encountered in the borings consisted mostly of red to tan to brown to orange silty clays. No petroleum odors or staining were observed in the borings and groundwater was not encountered. Based on observations of topography of the Site vicinity, the groundwater flow direction is inferred to be generally to the northeast. Boring logs are presented in **Appendix B**.

## **3.0 FIELD ACTIVITIES**

### **3.1 Preliminary Activities**

Prior to commencing field sampling activities at the Site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was created including the Site-specific health and safety information necessary for the field activities. North Carolina 811 was contacted on April 9, 2019 to report the proposed sampling

activities and subsequently notify affected utilities for the parcel. Probe Utility Locating (PUL) was retained by Wood to perform utility locating at the Site. South Atlantic Environmental Drilling and Construction Co. Inc. (SAEDACCO) from Fort Mill, South Carolina was retained by Wood to perform the direct-push sampling.

Wood understands that acquisition of the right-of-way is necessary for the construction of the US 74 – Shelby Bypass. Boring locations were strategically placed within the parcel to maximize the opportunity to encounter potential contaminated soil.

### **3.2 Site Reconnaissance**

Wood personnel performed a Site reconnaissance on April 9, 2019. During the Site reconnaissance, the area was visually examined for the presence of areas/obstructions that could potentially affect the subsurface investigation. A pesticide/herbicide storage building, a pipe yard, an emulsified asphalt AST, and assorted road construction materials were observed during the Site reconnaissance. The pesticide/herbicide storage building and pipe yard were observed in the eastern portion of the Site. The interior of the pesticide/herbicide building was not assessed during this PSA.

### **3.3 Soil Sampling**

In advance of drilling activities, PUL performed utility locating at the Site on April 10, 2019. On April 17, and April 18, 2019, Wood and SAEDACCO mobilized to the Site to advance seven shallow soil borings at the Site across the area of investigation. The borings were advanced via direct-push technology to an approximate depth of 12 feet bgs located around the storage building (P623-SB1 to P623-SB4), borings to the east of the building in the woods were advanced to an approximate depth of four feet bgs (P623-SB5 to P623-SB7). Borings were advanced in locations of preferential pathways for potential leaks and spills from the storage building and proposed drainage features.

The purpose of the soil sampling was to determine if a chemical release had impacted the Site and if so, to estimate the volume of impacted soil that might require special handling during NCDOT construction activities. To minimize potential for cross-contamination between boring locations with the direct-push rig, a new PVC liner (tube) was inserted into the sampler for each soil interval. Soil sampling was accompanied by field screening. Wood conducted field screening for volatile organic compounds (VOCs) of the soil borings with a

photoionization detector (PID). The direct-push soil borings were screened with the PID at two-foot intervals. A portion of the interval of the soil boring exhibiting the highest PID reading was retained for laboratory analysis and placed in laboratory provided containers and immediately placed on ice.

The samples were delivered under standard chain-of-custody protocol via courier to Prism Laboratories, Inc. (Prism) in Charlotte, North Carolina and analyzed for eight Resource Conservation and Recovery Act (RCRA) metals via EPA methods 6010/7471, VOCs via EPA method 8260, semi-volatile organic compounds (SVOCs) via EPA method 8270, organochlorine pesticides via EPA method 8081 and herbicides via EPA method 8151. Ten total samples were collected from the borings at the Site for laboratory analysis.

## 4.0 SOIL SAMPLING RESULTS

Based on PID field screening and laboratory analysis, evidence of impacted soil was not identified within the area of investigation.

### 4.1 PID Soil Screening

PID readings for the seven borings ranged from 1.2 parts per million (ppm) in sample P623-SB6-0-2 collected between the ground surface and two feet bgs to 12.2 ppm in sample P623-SB2-8-10 collected between eight to 10 feet bgs. The PID field screening results are summarized in **Table 1** and provided on the boring logs in Appendix B.

### 4.2 Laboratory Analyses

The laboratory analytical report and chain-of-custody form for the soil sample analyses conducted by Prism is included in **Appendix C**. The results of the 10 soil samples analyzed for eight RCRA Metals, VOCs, SVOCs, organochlorine pesticides, and herbicides by Prism are summarized in **Tables 2** through **5** and below.

- Concentrations of arsenic, barium, total chromium and lead were identified in each of the 10 soil samples collected at the Site. In addition, mercury was detected 7 of the 10 soil samples and cadmium was identified in 2 of the 10 soil samples. Furthermore, the cadmium concentrations and five of the seven mercury

concentrations were J-flagged, indicating the values were identified above the method detection limit but below the reporting limit and is considered an estimate.

- The concentrations of arsenic identified in the 10 samples ranged from 3.1 milligrams per kilogram (mg/kg) in sample P623-SB4-2-4 to 7.2 mg/kg in sample P625-SB3-2-4 and exceeded the EPA Composite Worker Soil Carcinogenic Target of  $1e^{-6}$  (TR) Regional Screening Level (RSL) for arsenic of 3.0 mg/kg.
- The concentrations of total chromium identified in the 10 samples ranged from 46 mg/kg in samples P623-SB7-0-2 and P623-SB4-2-4 to 220 mg/kg in sample P623-SB3-2-4 and exceeded the NCDEQ Soil-to-Water Maximum Soil Contaminant Concentration (MSCC) for total chromium of 5.4 mg/kg. In addition, the concentrations exceeded the EPA Composite Worker Soil Carcinogenic TR RSL for chromium (VI) of 6.3 mg/kg. Note, separate EPA RSLs are established for chromium (III) and chromium (VI) variants. Speciated chromium samples were not analyzed as part of this assessment. The EPA Composite Worker Soil Carcinogenic TR RSL for chromium (VI) of 6.3 mg/kg was conservatively compared to these samples.
- The barium, cadmium, lead and mercury concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs.
- Concentrations of 4-isopropyltoluene, acetone and methyl ethyl ketone (2-butanone) were identified in the soil analysis for VOCs. However, none of the 4-isopropyltoluene, acetone, or 2-butanone concentrations identified exceeded their respective NCDEQ MSCCs or EPA RSLs.
- Several J-flagged SVOC concentrations were identified in one (P623-SB2-2-4) of the 10 samples soil samples collected at the Site. None of the SVOC concentrations identified exceeded their respective NCDEQ MSCCs or EPA RSLs with the exception of benzo(a)pyrene which was identified at a concentration of 0.24J mg/kg and exceeds the NCDEQ Soil-to-Water MSCC of 0.096 mg/kg; however, the benzo(a)pyrene concentration does not exceed the EPA RSLs. No detectable SVOC concentrations were identified in the remaining soil samples.
- Concentrations of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, aldrin and dieldrin were identified in one or more soil samples collected at the Site. However, none of the

organochlorine pesticide concentrations identified exceeded their respective EPA RSLs.

- Detectable concentrations of herbicides were not identified in the ten soil samples collected at the Site.

## 5.0 CONCLUSIONS

The area of investigation for this PSA focused around the vicinity of the pesticide/herbicide storage building at the Site. The interior of the pesticide/herbicide building was not assessed as part of the scope of this PSA. It is possible impacted soil may exist beneath the existing building footprint. In addition, at the request of the NCDOT, the emulsified asphalt AST was not included in this PSA as it has reportedly been previously assessed.

Concentrations of total chromium identified in the 10 soil samples collected at the Site and exceeded their respective NCDEQ Soil-to-Water MSCCs and EPA Composite Worker Soil Carcinogenic TR RSLs. In addition, the concentrations of arsenic identified in the 10 soil samples exceeded the EPA Composite Worker Soil Carcinogenic TR RSL. However, the concentrations of arsenic and total chromium identified in the soil samples are within the naturally occurring trace element content of soils as identified in the EPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW874 (dated April 1983), page 273, Table 6.46.

The VOC concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs. The concentration of benzo(a)pyrene identified in sample P623-SB2-2-4 exceeded its respective Soil-to-Water MSCC of 0.096 mg/kg but not its respective EPA RSLs. In addition, the benzo(a)pyrene concentration identified was J-flagged and considered an estimated concentration. Wood considers this benzo(a)pyrene detection in sample P623-SB2-2-4to be a negligible, *de minimis* impact to Site soil. The other SVOC concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs.

The concentrations of organochlorine pesticides identified in the samples did not exceed their respective EPA RSLs. Detectable concentrations of herbicides were not in the 10 samples collected at the Site.

Based on the absence of VOC, organochlorine pesticide, and herbicide impacted soils identified at the site, the low-level benzo(a)pyrene SVOC concentration identified in sample P623-SB2-2-4, and that the concentrations of arsenic and total chromium were identified within naturally occurring background levels, Wood does not consider the concentrations detected to indicate a release has occurred at the Site.

## 6.0 RECOMMENDATIONS

Based on these PSA results, Wood does not recommend further assessment or soil sampling in the area of investigation at this time. However, Wood does recommend completing a visual reconnaissance of the interior of the pesticide/herbicide storage building after the materials inside have been removed. The purpose of the reconnaissance would be to observe the interior areas of the building for evidence of staining, floor drains, or other indications of a potential release or sub-slab soil impact. If such indications of a past release are suspected, Wood may recommend additional soil assessment activities at that time.

## **TABLES**

**Table 1: Summary of PID Screening Results**  
**Parcel 623 - North Carolina State Highway and Public Works Commission**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Boring ID	Depth of Sample Interval	PID Reading
P623-SB1	0-2	10.4
P623-SB1	6-8	11.0
P623-SB2	2-4	11.8
P623-SB2	8-10	12.2
P623-SB3	2-4	7.2
P623-SB4	2-4	9.8
P623-SB4	10-12	9.9
P623-SB5	0-2	3.4
P623-SB6	0-2	1.2
P623-SB7	0-2	8.7

**Notes:**

1. Samples collected on April 17 and 18, 2019
2. Depths shown in feet below ground surface (bgs)
3. PID = Photoionization Detector
4. PID readings shown in parts per million (ppm)

Prepared By/Date: \_\_\_\_\_ RPD 5/9/19  
 Checked By/Date: \_\_\_\_\_ DRH 5/10/19

**Table 2: Summary of RCRA Metal Analytical Results**  
**Parcel 623 - North Carolina State Highway and Public Works Commission**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P623-SB1-0-2	P623-SB1-6-8	P623-SB2-2-4	P623-SB2-8-10	P623-SB3-2-4	P623-SB4-2-4	P623-SB4-10-12	P623-SB5-0-2	P623-SB6-0-2	P623-SB7-0-2	Soil-to-Water MSCCs	Industrial/ Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non-carcinogenic HI RSLs	Trace Element Content of Soils*
Sample Depth	0-2	6-8	2-4	8-10	2-4	2-4	10-12	0-2	0-2	0-2					
Arsenic	<u>3.8</u>	<u>5.2</u>	<u>3.4</u>	<u>6.1</u>	<u>7.2</u>	<u>3.1</u>	<u>5.2</u>	<u>4.3</u>	<u>4.5</u>	<u>5.0</u>	NE	NE	3.0	48	1-50
Barium	70	16	61	38	56	48	54	43	98	49	290	81,000	NE	22,000	100-3,000
Cadmium	<0.039	<0.040	<0.046	<0.042	<0.044	<0.041	<0.043	0.050J	<0.041	0.18J	NE	NE	9,300	98	0.01-0.7
Chromium	<b>78</b>	<b>73</b>	<b>67</b>	<b>210</b>	<b>220</b>	<b>46</b>	<b>120</b>	<b>88</b>	<b>71</b>	<b>46</b>	5.4	1,226	(III) NE (VI) 6.3	(III) 180,000 (VI) 350	1-1,000
Lead	16	11	13	16	20	11	20	12	23	16	270	400	NE	800	2-200
Mercury	0.022J	0.035J	<0.023	0.20	0.11	0.021J	<0.022	0.022J	<0.021	0.030J	NE	NE	NE	4.6	0.01-0.3
Selenium	<0.31	<0.33	<0.37	<0.34	<0.36	<0.33	<0.35	<0.33	<0.34	<0.32	NE	NE	NE	580	0.1-2
Silver	<0.035	<0.037	<0.042	<0.038	<0.040	<0.037	<0.039	<0.037	<0.037	<0.036	0.25	2,044	NE	580	0.01-5

**Notes:**

1. Samples collected on April 17 and 18, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
5. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
6. Bold value indicates concentration exceeds Soil-to-Water MSCC
7. Shaded value indicates concentration exceeds Industrial/Commercial MSCC
8. Underlined value indicates concentration exceeds EPA RSL for either Carcinogenic TR or Non-carcinogenic HI
9. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
10. Separate RSLs are established for Chromium (III) and (VI) variants. Speciated chromium samples were not analyzed during this assessment
11. NE = Not established

\*Reference: USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April 1983) page 273, Table 6.46

Prepared By/Date: RPD 5/9/19

Checked By/Date: DRH 5/10/19

**Table 3: Summary of VOC Analytical Results**  
**Parcel 623 - North Carolina State Highway and Public Works Commission**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P623-SB1-0-2	P623-SB1-6-8	P623-SB2-2-4	P623-SB2-8-10	P623-SB3-2-4	P623-SB4-2-4	P623-SB4-10-12	P623-SB5-0-2	P623-SB6-0-2	P623-SB7-0-2	Soil-to-Water MSCCs	Industrial/Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non-carcinogenic HI RSLs
Sample Depth	0-2	6-8	2-4	8-10	2-4	2-4	10-12	0-2	0-2	0-2				
4-Isopropyltoluene	<0.0018	<0.0013	<0.0015	<0.0017	<0.0017	<0.0013	<0.0010	0.0063	<0.0017	<0.0017	0.12	4,000	NE	NE
Acetone	0.26	0.10	0.083	0.010J	0.056	0.079	0.0052J	0.055	0.017J	0.093	24	360,000	NE	67,000
Methyl Ethyl Ketone (2-Butanone)	0.049	0.0075J	0.0043J	<0.0016	<0.0016	0.0037J	<0.00097	<0.0013	<0.0016	0.0051J	16	245,280	NE	19,000

**Notes:**

1. Samples collected on April 17 and 18, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
5. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
6. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
7. NE = Not established

Prepared By/Date: RPD 5/9/19

Checked By/Date: DRH 5/10/19

**Table 4: Summary of SVOC Analytical Results**  
**Parcel 623 - North Carolina State Highway and Public Works Commission**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P623-SB1-0-2	P623-SB1-6-8	P623-SB2-2-4	P623-SB2-8-10	P623-SB3-2-4	P623-SB4-2-4	P623-SB4-10-12	P623-SB5-0-2	P623-SB6-0-2	P623-SB7-0-2	Soil-to-Water MSCCs	Industrial/ Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non- carcinogenic HI RSLs
Sample Depth	0-2	6-8	2-4	8-10	2-4	2-4	10-12	0-2	0-2	0-2				
Benzo(a)anthracene	<0.049	<0.051	0.31J	<0.054	<0.056	<0.052	<0.055	<0.052	<0.053	<0.051	0.35	8	21	NE
Benzo(a)pyrene	<0.041	<0.042	<b>0.24J</b>	<0.044	<0.047	<0.043	<0.046	<0.043	<0.043	<0.042	0.096	0.78	2.1	22
Benzo(b)fluoranthene	<0.044	<0.045	0.34J	<0.048	<0.050	<0.046	<0.049	<0.046	<0.047	<0.045	1.2	8	21	NE
Benzo(g,h,i)perylene	<0.041	<0.043	0.14J	<0.045	<0.047	<0.044	<0.046	<0.043	<0.044	<0.042	6,400	12,264	NE	NE
Benzo(k)fluoranthene	<0.049	<0.051	0.12J	<0.054	<0.056	<0.052	<0.055	<0.052	<0.053	<0.051	12	78	210	NE
Chrysene	<0.048	<0.049	0.27J	<0.052	<0.054	<0.050	<0.053	<0.050	<0.051	<0.049	39	780	2,100	NE
Fluoranthene	<0.048	<0.050	0.57	<0.052	<0.055	<0.051	<0.054	<0.050	<0.051	<0.049	290	16,400	NE	3,000
Indeno(1,2,3-cd)pyrene	<0.043	<0.045	0.16J	<0.047	<0.049	<0.046	<0.048	<0.045	<0.046	<0.044	3.4	8	21	NE
Phenanthrene	<0.049	<0.051	0.24J	<0.053	<0.056	<0.052	<0.055	<0.051	<0.052	<0.050	56	12,264	NE	NE
Pyrene	<0.050	<0.052	0.43J	<0.054	<0.057	<0.053	<0.056	<0.052	<0.053	<0.051	270	12,264	NE	2,300

**Notes:**

1. Samples collected on April 17 and 18, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. Bold value indicates concentration exceeds Soil-to-Water MSCC
5. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
6. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
7. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
8. NE = Not established

Prepared By/Date: RPD 5/9/19

Checked By/Date: DRH 5/10/19

**Table 5: Summary of Organochlorine Pesticides Analytical Results**  
**Parcel 623 - North Carolina State Highway and Public Works Commission**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P623-SB1-0-2	P623-SB1-6-8	P623-SB2-2-4	P623-SB2-8-10	P623-SB3-2-4	P623-SB4-2-4	P623-SB4-10-12	P623-SB5-0-2	P623-SB6-0-2	P623-SB7-0-2	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non-carcinogenic HI RSLs
Sample Depth	0-2	6-8	2-4	8-10	2-4	2-4	10-12	0-2	0-2	0-2		
4,4'-DDD	<0.0022	0.017	<0.0025	<0.0023	<0.0025	<0.0023	<0.0024	<0.0023	<0.0023	<0.0022	9.6	2.5
4,4'-DDE	<0.0024	0.038	<0.0028	<0.0026	<0.0027	<0.0025	<0.0026	<0.0025	<0.0025	<0.0024	9.3	35
4,4'-DDT	<0.0018	0.0091	<0.0021	<0.0019	<0.0020	<0.0018	<0.0020	<0.0018	<0.0019	<0.0018	8.5	52
Aldrin	0.033	<0.0022	<0.0025	<0.0023	<0.0024	<0.0022	<0.0023	<0.0022	<0.0022	<0.0022	0.18	3.5
Dieldrin	0.095	<0.0025	<0.0028	<0.0026	<0.0027	<0.0025	<0.0027	<0.0025	<0.0025	0.089	0.14	4.1

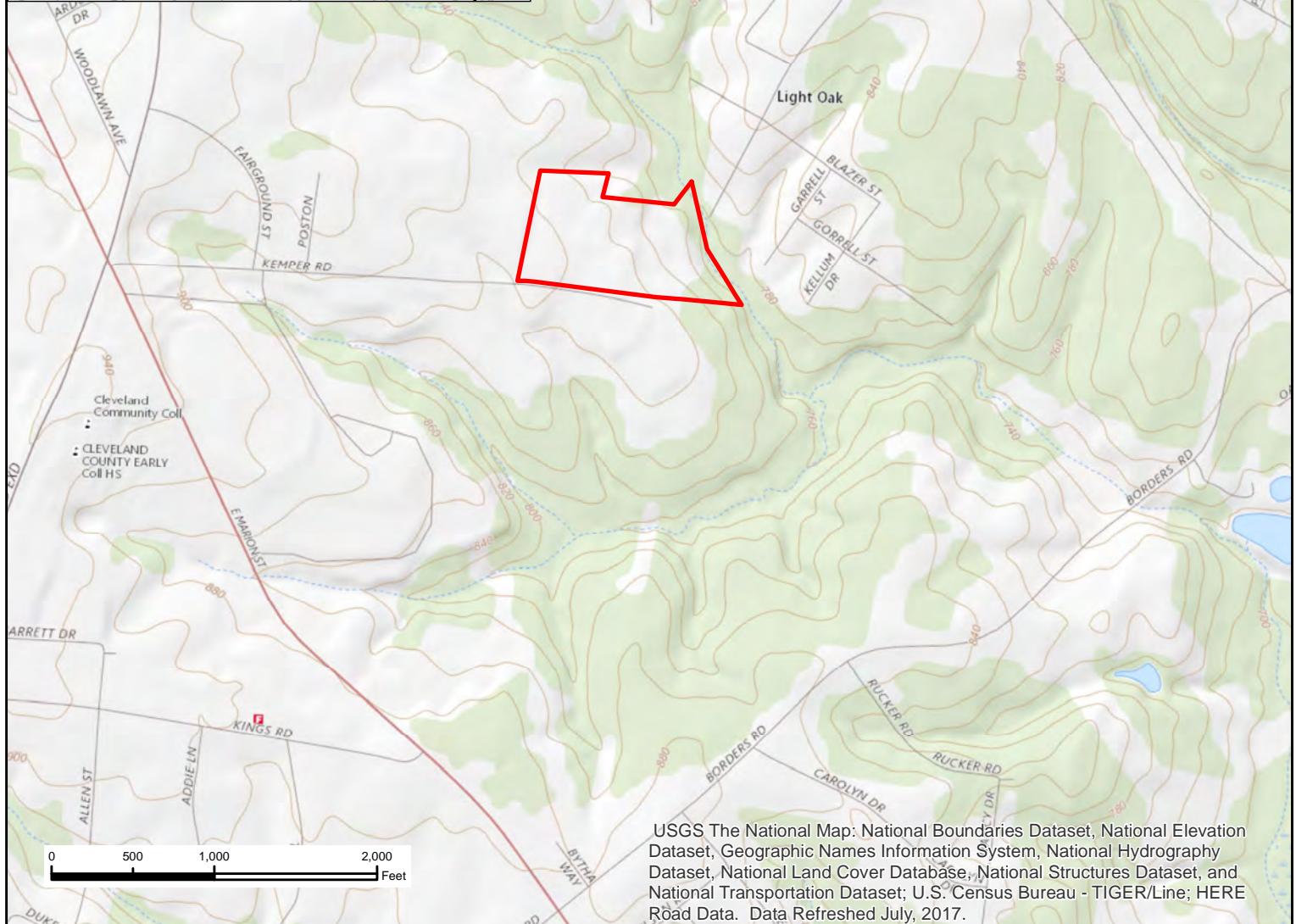
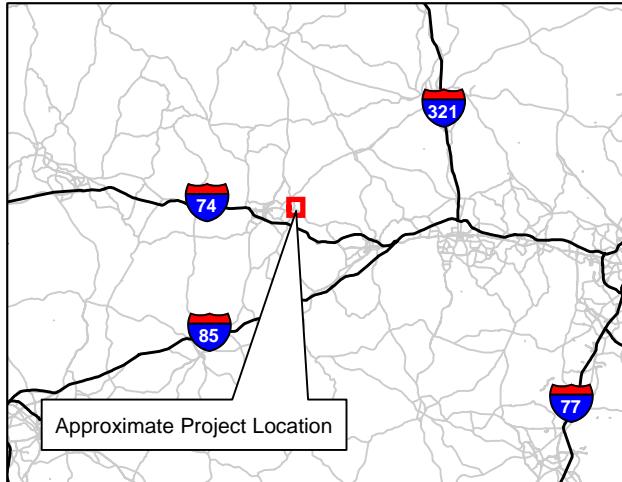
**Notes:**

1. Samples collected on April 17 and 18, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
5. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
6. NE = Not established

Prepared By/Date: RPD 5/9/19

Checked By/Date: DRH 5/10/19

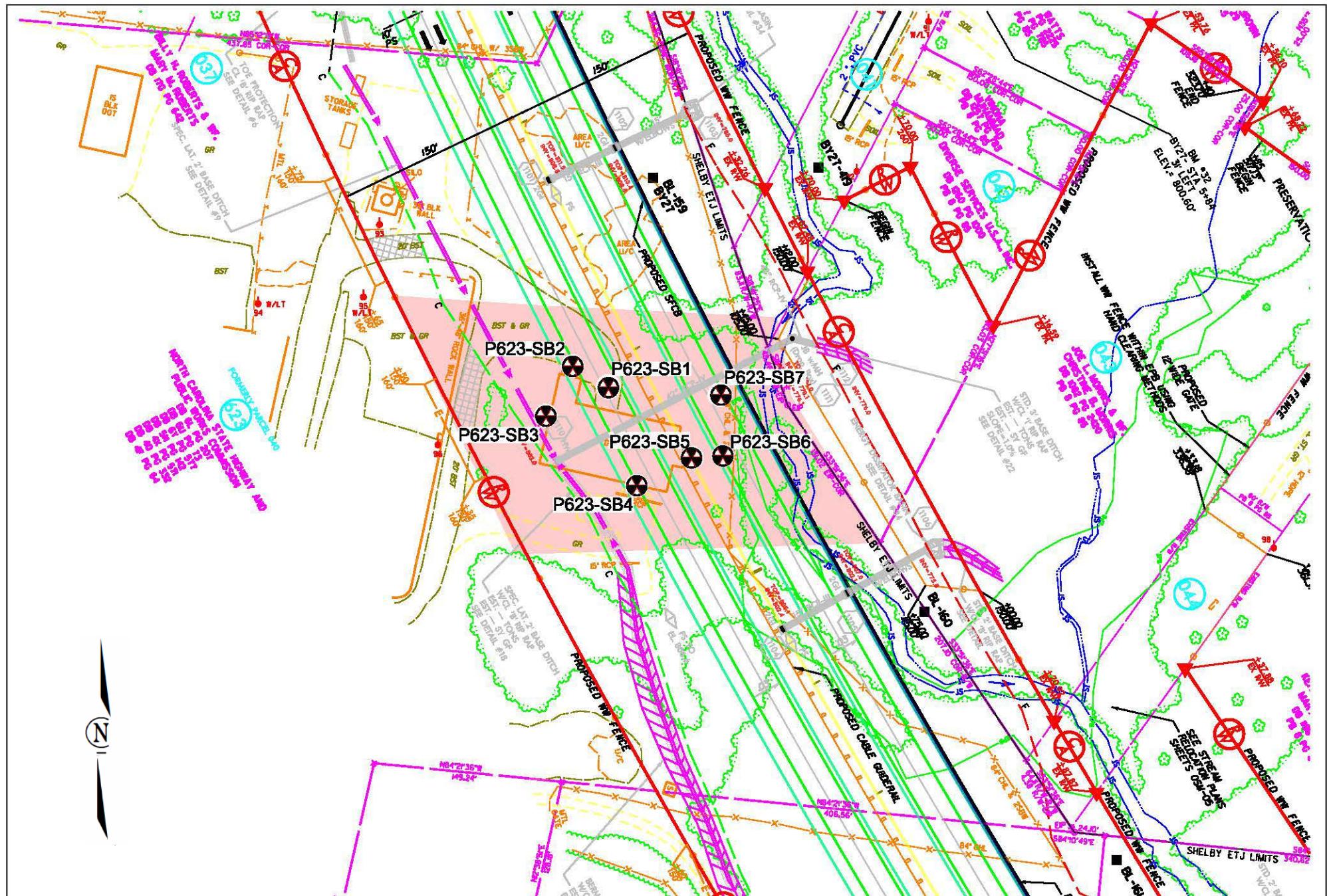
## **FIGURES**



**wood.**

**SITE VICINITY**  
**R2707D - Parcel 623**  
**North Carolina State Highway and Public Works**  
**Commission**  
**275 Kemper Road**  
**Shelby, North Carolina 28150**

Site Boundary



● BORING LOCATION

■ AREA OF INVESTIGATION

100' 0' 50' 100'

25'

(ENGLISH)

**WOOD.**

AREA OF INVESTIGATION WITH SOIL BORING LOCATIONS - PARCEL 623  
NORTH CAROLINA STATE HIGHWAY AND PUBLIC WORKS COMMISSION  
STATE PROJECT: R-2707D  
WB ELEMENT: 34497.1-F86  
CLEVELAND COUNTY, SHELBY, NORTH CAROLINA

PREPARED BY:	DATE:	CHECKED BY:	DATE:	JOB NUMBER	FIGURE
LHM	5/9/19	HPC	5/9/19	188322707	2

**APPENDIX A**

**PHOTOGRAPHIC LOG**



**PHOTO 1:**

View south of the northern side of the pesticide/herbicide storage building on the North Carolina State Highway and Public Works Commission Site.

Photo taken 4/17/19.



**PHOTO 2:**

View east of the western and southern sides of the pesticide/herbicide storage building.

Photo taken 4/18/19.

**APPENDIX B**  
**BORING LOGS**

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P623-SB1</b>	BORING DEPTH (ft)	<b>12</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/17/2019</b>	WEATHER CONDITIONS			<b>82°F Sunny</b>
DRILLING SUB-CONTRACTOR		<b>SAEDACCO</b>	DRILL RIG		<b>Geoprobe 54DT</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>		Gravel	
		Dark brown fine-grained sandy SILT w/gravel	
<b>2</b>	10.4		
<b>3</b>		Brown fine-grained sandy SILT	
<b>4</b>	9.0		
<b>5</b>			
<b>6</b>	10.6	Red silty CLAY	
<b>7</b>			
<b>8</b>	11.0		
<b>9</b>			
<b>10</b>	8.3	Tan brown fine-grained sandy SILT w/quartz grains	
<b>11</b>			
<b>12</b>	8.8		
<b>13</b>		Boring terminated at 12ft. Samples for off-site analysis taken at 0-2 and 6-8ft. Initially attempted SB1 closer to concrete pad, hit refusal at 1.5ft.	
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: DRHPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<u>P623-SB2</u>	BORING DEPTH (ft)	<u>12</u>	NUMBER OF PAGES	<u>1</u>
PROJECT #	<u>1883R2707</u>	PROJECT NAME			<u>NCDOT Shelby R-2707D</u>
DATE DRILLED	<u>4/17/2019</u>	WEATHER CONDITIONS			<u>82°F Sunny</u>
DRILLING SUB-CONTRACTOR	<u>SAEDACCO</u>	DRILL RIG			<u>Geoprobe 54DT</u>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<u>1</u>		Concrete	
<u>2</u>	<u>7.5</u>		
<u>3</u>		Brown and red silty CLAY	
<u>4</u>	<u>11.8</u>		
<u>5</u>			
<u>6</u>	<u>10.1</u>		
<u>7</u>			
<u>8</u>	<u>7.8</u>	Red silty CLAY	
<u>9</u>			
<u>10</u>	<u>12.2</u>		
<u>11</u>		Tan and orange silty CLAY	
<u>12</u>	<u>9.5</u>		
<u>13</u>		Boring terminated at 12ft. Samples taken for off-site analysis taken at 2-4 and 8-10ft.	
<u>14</u>			
<u>15</u>			
<u>16</u>			
<u>17</u>			
<u>18</u>			
<u>19</u>			
<u>20</u>			
<u>21</u>			

Log Completed By: DRHPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P623-SB3	BORING DEPTH (ft)	12	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/17/2019	WEATHER CONDITIONS	82°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Dark brown fine-grained sandy SILT w/clay	
2	6.8		
3		Red silty CLAY	
4	7.2		
5			
6	8.3	Red and orange silty CLAY	
7			
8	10.0		
9			
10	9.5	Tan brown silty CLAY	
11			
12	9.9		
13		Boring terminated at 12ft. Sample for off-site analysis taken at 2-4ft.	
14			
15			
16			
17			
18			
19			
20			
21			

Log Completed By: DRH

Page: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P623-SB4	BORING DEPTH (ft)	12	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/17/2019	WEATHER CONDITIONS	82°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Asphalt/concrete	
2	6.8		
3		Brown silty CLAY	
4	9.8		
5			
6	8.3		
7			
8	10.3	Red silty CLAY	
9			
10	10.0		
11			
12	9.9	Red silty CLAY w/gravel	
13		Boring terminated at 12ft. Samples for off-site analysis taken at 2-4 and 10-12ft.	
14			
15			
16			
17			
18			
19			
20			
21			

Log Completed By: DRH

Page: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P623-SB5	BORING DEPTH (ft)	4	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/18/2019	WEATHER CONDITIONS	79°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Dark brown silty CLAY	
2	3.4		
3		Red orange silty CLAY	
4	0.8		
5		Boring terminated at 4ft. Samples for off-site analysis taken at 0-2ft.	
6			
7			
8			
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21			

Log Completed By: DRH

Page: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P623-SB6	BORING DEPTH (ft)	4	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/18/2019	WEATHER CONDITIONS	79°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Dark brown silty CLAY	
2	1.2	White and orange PARTIALLY WEATHERED ROCK	
3		Red and orange silty CLAY	
4	1.1		
5		Boring terminated at 4ft. Samples for off-site analysis taken at 0-2ft.	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

Log Completed By: DRH

Page: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P623-SB7	BORING DEPTH (ft)	4	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/18/2019	WEATHER CONDITIONS	79°F Sunny		
DRILLING SUB-CONTRACTOR	SAEDACCO	DRILL RIG	Geoprobe 54DT		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1		Dark brown silty CLAY	
2	8.7		
3		Tan brown silty CLAY	
4	1.2		
5		Boring terminated at 4ft. Samples for off-site analysis taken at 0-2ft.	
6			
7			
8			
9			
10			
11			
12			
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14			
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20			
21			

Log Completed By: DRH

Page: 1

**APPENDIX C**  
**LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY**  
**FORM**



Full-Service Analytical &  
Environmental Solutions

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

## Case Narrative

5/7/19 15:20

Wood Environ. & Infrastructure Solutions (Charl)  
John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project: NCDOT Shelby R-2707 D&E  
Project No.: 1883R2707 Parcel 623  
Lab Submittal Date: 04/22/2019  
Prism Work Order: 9040348

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.

### Narrative Notes:

Herbicide analysis was subcontracted to AES. Laboratory report is attached.

Prism Summary of Detections does not include subcontracted data.

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

Respectfully,

**PRISM LABORATORIES, INC.**

Robbi A. Jones  
President/Project Manager

Reviewed By Robbi A. Jones  
President/Project Manager

**Data Qualifiers Key Reference:**

- D       RPD value outside of the control limits.
- J       Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- M       Matrix spike outside of the control limits.
- MC      Sample concentration too high for recovery evaluation.
- U       Not Detected at the MDL
- 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.

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Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P623-SB1-0-2	9040348-01	Solid	04/17/19 16:05	04/22/19 9:30
P623-SB1-6-8	9040348-02	Solid	04/17/19 16:25	04/22/19 9:30
P623-SB2-2-4	9040348-03	Solid	04/17/19 17:10	04/22/19 9:30
P623-SB2-8-10	9040348-04	Solid	04/17/19 17:20	04/22/19 9:30
P623-SB3-2-4	9040348-05	Solid	04/17/19 17:30	04/22/19 9:30
P623-SB4-2-4	9040348-06	Solid	04/17/19 17:45	04/22/19 9:30
P623-SB4-10-12	9040348-07	Solid	04/17/19 18:00	04/22/19 9:30
P623-SB5-0-2	9040348-08	Solid	04/18/19 9:40	04/22/19 9:30
P623-SB6-0-2	9040348-09	Solid	04/18/19 9:50	04/22/19 9:30
P623-SB7-0-2	9040348-10	Solid	04/18/19 10:00	04/22/19 9:30

Samples were received in good condition at 3.1 degrees C unless otherwise noted.



Full-Service Analytical &  
Environmental Solutions

## Summary of Detections

05/07/2019

Prism Work Order: 9040348

Prism ID	Client ID	Parameter	Method	Result	Units
9040348-01	P623-SB1-0-2	Aldrin	8081B	0.033	mg/kg dry
9040348-01	P623-SB1-0-2	Dieldrin	8081B	0.095	mg/kg dry
9040348-01	P623-SB1-0-2	Mercury	7471B	0.022	J mg/kg dry
9040348-01	P623-SB1-0-2	Arsenic	6010D	3.8	mg/kg dry
9040348-01	P623-SB1-0-2	Barium	6010D	70	mg/kg dry
9040348-01	P623-SB1-0-2	Chromium	6010D	78	mg/kg dry
9040348-01	P623-SB1-0-2	Lead	6010D	16	mg/kg dry
9040348-01	P623-SB1-0-2	Acetone	8260B	0.26	mg/kg dry
9040348-01	P623-SB1-0-2	Methyl Ethyl Ketone (2-Butanone)	8260B	0.049	mg/kg dry
9040348-02	P623-SB1-6-8	4,4'-DDD	8081B	0.017	mg/kg dry
9040348-02	P623-SB1-6-8	4,4'-DDE	8081B	0.038	mg/kg dry
9040348-02	P623-SB1-6-8	4,4'-DDT	8081B	0.0091	mg/kg dry
9040348-02	P623-SB1-6-8	Mercury	7471B	0.035	J mg/kg dry
9040348-02	P623-SB1-6-8	Arsenic	6010D	5.2	mg/kg dry
9040348-02	P623-SB1-6-8	Barium	6010D	16	mg/kg dry
9040348-02	P623-SB1-6-8	Chromium	6010D	73	mg/kg dry
9040348-02	P623-SB1-6-8	Lead	6010D	11	mg/kg dry
9040348-02	P623-SB1-6-8	Acetone	8260B	0.10	mg/kg dry
9040348-02	P623-SB1-6-8	Methyl Ethyl Ketone (2-Butanone)	8260B	0.0075	J mg/kg dry
9040348-03	P623-SB2-2-4	Benzo(a)anthracene	8270D	0.31	J mg/kg dry
9040348-03	P623-SB2-2-4	Benzo(a)pyrene	8270D	0.24	J mg/kg dry
9040348-03	P623-SB2-2-4	Benzo(b)fluoranthene	8270D	0.34	J mg/kg dry
9040348-03	P623-SB2-2-4	Benzo(g,h,i)perylene	8270D	0.14	J mg/kg dry
9040348-03	P623-SB2-2-4	Benzo(k)fluoranthene	8270D	0.12	J mg/kg dry
9040348-03	P623-SB2-2-4	Chrysene	8270D	0.27	J mg/kg dry
9040348-03	P623-SB2-2-4	Fluoranthene	8270D	0.57	mg/kg dry
9040348-03	P623-SB2-2-4	Indeno(1,2,3-cd)pyrene	8270D	0.16	J mg/kg dry
9040348-03	P623-SB2-2-4	Phenanthrene	8270D	0.24	J mg/kg dry
9040348-03	P623-SB2-2-4	Pyrene	8270D	0.43	J mg/kg dry
9040348-03	P623-SB2-2-4	Arsenic	6010D	3.4	mg/kg dry
9040348-03	P623-SB2-2-4	Barium	6010D	61	mg/kg dry
9040348-03	P623-SB2-2-4	Chromium	6010D	67	mg/kg dry
9040348-03	P623-SB2-2-4	Lead	6010D	13	mg/kg dry
9040348-03	P623-SB2-2-4	Acetone	8260B	0.083	mg/kg dry
9040348-03	P623-SB2-2-4	Methyl Ethyl Ketone (2-Butanone)	8260B	0.0043	J mg/kg dry
9040348-04	P623-SB2-8-10	Mercury	7471B	0.20	mg/kg dry
9040348-04	P623-SB2-8-10	Arsenic	6010D	6.1	mg/kg dry
9040348-04	P623-SB2-8-10	Barium	6010D	38	mg/kg dry
9040348-04	P623-SB2-8-10	Chromium	6010D	210	mg/kg dry
9040348-04	P623-SB2-8-10	Lead	6010D	16	mg/kg dry
9040348-04	P623-SB2-8-10	Acetone	8260B	0.010	J mg/kg dry
9040348-05	P623-SB3-2-4	Mercury	7471B	0.11	mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result	Units	
9040348-05	P623-SB3-2-4	Arsenic	6010D	7.2	mg/kg dry	
9040348-05	P623-SB3-2-4	Barium	6010D	56	mg/kg dry	
9040348-05	P623-SB3-2-4	Chromium	6010D	220	mg/kg dry	
9040348-05	P623-SB3-2-4	Lead	6010D	20	mg/kg dry	
9040348-05	P623-SB3-2-4	Acetone	8260B	0.056	mg/kg dry	
9040348-06	P623-SB4-2-4	Mercury	7471B	0.021	J	mg/kg dry
9040348-06	P623-SB4-2-4	Arsenic	6010D	3.1	mg/kg dry	
9040348-06	P623-SB4-2-4	Barium	6010D	48	mg/kg dry	
9040348-06	P623-SB4-2-4	Chromium	6010D	46	mg/kg dry	
9040348-06	P623-SB4-2-4	Lead	6010D	11	mg/kg dry	
9040348-06	P623-SB4-2-4	Acetone	8260B	0.079	mg/kg dry	
9040348-06	P623-SB4-2-4	Methyl Ethyl Ketone (2-Butanone)	8260B	0.0037	J	mg/kg dry
9040348-07	P623-SB4-10-12	Arsenic	6010D	5.2	mg/kg dry	
9040348-07	P623-SB4-10-12	Barium	6010D	54	mg/kg dry	
9040348-07	P623-SB4-10-12	Chromium	6010D	120	mg/kg dry	
9040348-07	P623-SB4-10-12	Lead	6010D	20	mg/kg dry	
9040348-07	P623-SB4-10-12	Acetone	8260B	0.0052	J	mg/kg dry
9040348-08	P623-SB5-0-2	Mercury	7471B	0.022	J	mg/kg dry
9040348-08	P623-SB5-0-2	Arsenic	6010D	4.3	mg/kg dry	
9040348-08	P623-SB5-0-2	Barium	6010D	43	mg/kg dry	
9040348-08	P623-SB5-0-2	Cadmium	6010D	0.050	J	mg/kg dry
9040348-08	P623-SB5-0-2	Chromium	6010D	88	mg/kg dry	
9040348-08	P623-SB5-0-2	Lead	6010D	12	mg/kg dry	
9040348-08	P623-SB5-0-2	4-Isopropyltoluene	8260B	0.0063	mg/kg dry	
9040348-08	P623-SB5-0-2	Acetone	8260B	0.055	mg/kg dry	
9040348-09	P623-SB6-0-2	Arsenic	6010D	4.5	mg/kg dry	
9040348-09	P623-SB6-0-2	Barium	6010D	98	mg/kg dry	
9040348-09	P623-SB6-0-2	Chromium	6010D	71	mg/kg dry	
9040348-09	P623-SB6-0-2	Lead	6010D	23	mg/kg dry	
9040348-09	P623-SB6-0-2	Acetone	8260B	0.017	J	mg/kg dry
9040348-10	P623-SB7-0-2	Dieldrin	8081B	0.089	mg/kg dry	
9040348-10	P623-SB7-0-2	Mercury	7471B	0.030	J	mg/kg dry
9040348-10	P623-SB7-0-2	Arsenic	6010D	5.0	mg/kg dry	
9040348-10	P623-SB7-0-2	Barium	6010D	49	mg/kg dry	
9040348-10	P623-SB7-0-2	Cadmium	6010D	0.18	J	mg/kg dry
9040348-10	P623-SB7-0-2	Chromium	6010D	46	mg/kg dry	
9040348-10	P623-SB7-0-2	Lead	6010D	16	mg/kg dry	
9040348-10	P623-SB7-0-2	Acetone	8260B	0.093	mg/kg dry	
9040348-10	P623-SB7-0-2	Methyl Ethyl Ketone (2-Butanone)	8260B	0.0051	J	mg/kg dry

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-0-2  
Prism Sample ID: 9040348-01  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:05  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	87.4	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0022 U	mg/kg dry	0.0057	0.0022	1	8081B	4/25/19 15:13	ZRC	P9D0422
4,4'-DDE	0.0024 U	mg/kg dry	0.0057	0.0024	1	8081B	4/25/19 15:13	ZRC	P9D0422
4,4'-DDT	0.0018 U	mg/kg dry	0.0057	0.0018	1	8081B	4/25/19 15:13	ZRC	P9D0422
Aldrin	0.033	mg/kg dry	0.0057	0.0021	1	8081B	4/25/19 15:13	ZRC	P9D0422
alpha-BHC	0.0014 U	mg/kg dry	0.0057	0.0014	1	8081B	4/25/19 15:13	ZRC	P9D0422
cis-Chlordane	0.0021 U	mg/kg dry	0.0057	0.0021	1	8081B	4/25/19 15:13	ZRC	P9D0422
beta-BHC	0.0023 U	mg/kg dry	0.0057	0.0023	1	8081B	4/25/19 15:13	ZRC	P9D0422
Chlordane	0.011 U	mg/kg dry	0.057	0.011	1	8081B	4/25/19 15:13	ZRC	P9D0422
delta-BHC	0.0014 U	mg/kg dry	0.0057	0.0014	1	8081B	4/25/19 15:13	ZRC	P9D0422
Dieldrin	0.095	mg/kg dry	0.0057	0.0024	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endosulfan I	0.0020 U	mg/kg dry	0.0057	0.0020	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endosulfan II	0.0020 U	mg/kg dry	0.0057	0.0020	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endosulfan Sulfate	0.0021 U	mg/kg dry	0.0057	0.0021	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endrin	0.0022 U	mg/kg dry	0.0057	0.0022	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endrin Aldehyde	0.0024 U	mg/kg dry	0.0057	0.0024	1	8081B	4/25/19 15:13	ZRC	P9D0422
Endrin Ketone	0.0021 U	mg/kg dry	0.0057	0.0021	1	8081B	4/25/19 15:13	ZRC	P9D0422
gamma-BHC	0.0014 U	mg/kg dry	0.0057	0.0014	1	8081B	4/25/19 15:13	ZRC	P9D0422
trans-Chlordane	0.0019 U	mg/kg dry	0.0057	0.0019	1	8081B	4/25/19 15:13	ZRC	P9D0422
Heptachlor	0.0016 U	mg/kg dry	0.0057	0.0016	1	8081B	4/25/19 15:13	ZRC	P9D0422
Heptachlor Epoxide	0.0020 U	mg/kg dry	0.0057	0.0020	1	8081B	4/25/19 15:13	ZRC	P9D0422
Methoxychlor	0.0030 U	mg/kg dry	0.0057	0.0030	1	8081B	4/25/19 15:13	ZRC	P9D0422
Toxaphene	0.011 U	mg/kg dry	0.057	0.011	1	8081B	4/25/19 15:13	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
66 %									
Tetrachloro-m-xylene									
57 %									
Control Limits									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.059 U	mg/kg dry	0.38	0.059	1	8270D	4/24/19 19:36	JMV	P9D0401
1,2-Dichlorobenzene	0.057 U	mg/kg dry	0.38	0.057	1	8270D	4/24/19 19:36	JMV	P9D0401
1,3-Dichlorobenzene	0.053 U	mg/kg dry	0.38	0.053	1	8270D	4/24/19 19:36	JMV	P9D0401
1,4-Dichlorobenzene	0.055 U	mg/kg dry	0.38	0.055	1	8270D	4/24/19 19:36	JMV	P9D0401
1-Methylnaphthalene	0.073 U	mg/kg dry	0.38	0.073	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4,5-Trichlorophenol	0.061 U	mg/kg dry	0.38	0.061	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4,6-Trichlorophenol	0.071 U	mg/kg dry	0.38	0.071	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4-Dichlorophenol	0.073 U	mg/kg dry	0.38	0.073	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4-Dimethylphenol	0.058 U	mg/kg dry	0.38	0.058	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4-Dinitrophenol	0.053 U	mg/kg dry	0.38	0.053	1	8270D	4/24/19 19:36	JMV	P9D0401
2,4-Dinitrotoluene	0.046 U	mg/kg dry	0.38	0.046	1	8270D	4/24/19 19:36	JMV	P9D0401
2,6-Dinitrotoluene	0.050 U	mg/kg dry	0.38	0.050	1	8270D	4/24/19 19:36	JMV	P9D0401
2-Chloronaphthalene	0.055 U	mg/kg dry	0.38	0.055	1	8270D	4/24/19 19:36	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-0-2  
Prism Sample ID: 9040348-01  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:05  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.053 U	mg/kg dry	0.38	0.053	1	8270D	4/24/19 19:36	JMV	P9D0401
2-Methylnaphthalene	0.060 U	mg/kg dry	0.38	0.060	1	8270D	4/24/19 19:36	JMV	P9D0401
2-Methylphenol	0.048 U	mg/kg dry	0.38	0.048	1	8270D	4/24/19 19:36	JMV	P9D0401
2-Nitrophenol	0.069 U	mg/kg dry	0.38	0.069	1	8270D	4/24/19 19:36	JMV	P9D0401
3,3'-Dichlorobenzidine	0.074 U	mg/kg dry	0.38	0.074	1	8270D	4/24/19 19:36	JMV	P9D0401
3/4-Methylphenol	0.047 U	mg/kg dry	0.38	0.047	1	8270D	4/24/19 19:36	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.057 U	mg/kg dry	0.38	0.057	1	8270D	4/24/19 19:36	JMV	P9D0401
4-Bromophenyl phenyl ether	0.065 U	mg/kg dry	0.38	0.065	1	8270D	4/24/19 19:36	JMV	P9D0401
4-Chloro-3-methylphenol	0.053 U	mg/kg dry	0.38	0.053	1	8270D	4/24/19 19:36	JMV	P9D0401
4-Chloroaniline	0.045 U	mg/kg dry	0.38	0.045	1	8270D	4/24/19 19:36	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.049 U	mg/kg dry	0.38	0.049	1	8270D	4/24/19 19:36	JMV	P9D0401
4-Nitrophenol	0.058 U	mg/kg dry	0.38	0.058	1	8270D	4/24/19 19:36	JMV	P9D0401
Acenaphthene	0.051 U	mg/kg dry	0.38	0.051	1	8270D	4/24/19 19:36	JMV	P9D0401
Acenaphthylene	0.055 U	mg/kg dry	0.38	0.055	1	8270D	4/24/19 19:36	JMV	P9D0401
Anthracene	0.061 U	mg/kg dry	0.38	0.061	1	8270D	4/24/19 19:36	JMV	P9D0401
Azobenzene	0.050 U	mg/kg dry	0.38	0.050	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzo(a)anthracene	0.049 U	mg/kg dry	0.38	0.049	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzo(a)pyrene	0.041 U	mg/kg dry	0.38	0.041	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzo(b)fluoranthene	0.044 U	mg/kg dry	0.38	0.044	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzo(g,h,i)perylene	0.041 U	mg/kg dry	0.38	0.041	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzo(k)fluoranthene	0.049 U	mg/kg dry	0.38	0.049	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzoic Acid	0.032 U	mg/kg dry	0.38	0.032	1	8270D	4/24/19 19:36	JMV	P9D0401
Benzyl alcohol	0.050 U	mg/kg dry	0.38	0.050	1	8270D	4/24/19 19:36	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.065 U	mg/kg dry	0.38	0.065	1	8270D	4/24/19 19:36	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.053 U	mg/kg dry	0.38	0.053	1	8270D	4/24/19 19:36	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.064 U	mg/kg dry	0.38	0.064	1	8270D	4/24/19 19:36	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.056 U	mg/kg dry	0.38	0.056	1	8270D	4/24/19 19:36	JMV	P9D0401
Butyl benzyl phthalate	0.054 U	mg/kg dry	0.38	0.054	1	8270D	4/24/19 19:36	JMV	P9D0401
Chrysene	0.048 U	mg/kg dry	0.38	0.048	1	8270D	4/24/19 19:36	JMV	P9D0401
Dibenzo(a,h)anthracene	0.046 U	mg/kg dry	0.38	0.046	1	8270D	4/24/19 19:36	JMV	P9D0401
Dibenzofuran	0.057 U	mg/kg dry	0.38	0.057	1	8270D	4/24/19 19:36	JMV	P9D0401
Diethyl phthalate	0.052 U	mg/kg dry	0.38	0.052	1	8270D	4/24/19 19:36	JMV	P9D0401
Dimethyl phthalate	0.050 U	mg/kg dry	0.38	0.050	1	8270D	4/24/19 19:36	JMV	P9D0401
Di-n-butyl phthalate	0.054 U	mg/kg dry	0.38	0.054	1	8270D	4/24/19 19:36	JMV	P9D0401
Di-n-octyl phthalate	0.046 U	mg/kg dry	0.38	0.046	1	8270D	4/24/19 19:36	JMV	P9D0401
Fluoranthene	0.048 U	mg/kg dry	0.38	0.048	1	8270D	4/24/19 19:36	JMV	P9D0401
Fluorene	0.054 U	mg/kg dry	0.38	0.054	1	8270D	4/24/19 19:36	JMV	P9D0401
Hexachlorobenzene	0.060 U	mg/kg dry	0.38	0.060	1	8270D	4/24/19 19:36	JMV	P9D0401
Hexachlorobutadiene	0.068 U	mg/kg dry	0.38	0.068	1	8270D	4/24/19 19:36	JMV	P9D0401
Hexachlorocyclopentadiene	0.067 U	mg/kg dry	0.38	0.067	1	8270D	4/24/19 19:36	JMV	P9D0401
Hexachloroethane	0.063 U	mg/kg dry	0.38	0.063	1	8270D	4/24/19 19:36	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.043 U	mg/kg dry	0.38	0.043	1	8270D	4/24/19 19:36	JMV	P9D0401
Isophorone	0.051 U	mg/kg dry	0.38	0.051	1	8270D	4/24/19 19:36	JMV	P9D0401
Naphthalene	0.061 U	mg/kg dry	0.38	0.061	1	8270D	4/24/19 19:36	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-0-2  
Prism Sample ID: 9040348-01  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:05  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID																					
Nitrobenzene	0.054 U	mg/kg dry	0.38	0.054	1	8270D	4/24/19 19:36	JMV	P9D0401																					
N-Nitroso-di-n-propylamine	0.059 U	mg/kg dry	0.38	0.059	1	8270D	4/24/19 19:36	JMV	P9D0401																					
N-Nitrosodiphenylamine	0.057 U	mg/kg dry	0.38	0.057	1	8270D	4/24/19 19:36	JMV	P9D0401																					
Pentachlorophenol	0.045 U	mg/kg dry	0.38	0.045	1	8270D	4/24/19 19:36	JMV	P9D0401																					
Phenanthrene	0.049 U	mg/kg dry	0.38	0.049	1	8270D	4/24/19 19:36	JMV	P9D0401																					
Phenol	0.056 U	mg/kg dry	0.38	0.056	1	8270D	4/24/19 19:36	JMV	P9D0401																					
Pyrene	0.050 U	mg/kg dry	0.38	0.050	1	8270D	4/24/19 19:36	JMV	P9D0401																					
Pyridine	0.066 U	mg/kg dry	0.38	0.066	1	8270D	4/24/19 19:36	JMV	P9D0401																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Surrogate</th> <th style="width: 30%;">Recovery</th> <th style="width: 40%;">Control Limits</th> </tr> <tr> <td>2,4,6-Tribromophenol</td> <td>92 %</td> <td>39-132</td> </tr> <tr> <td>2-Fluorobiphenyl</td> <td>86 %</td> <td>44-115</td> </tr> <tr> <td>2-Fluorophenol</td> <td>80 %</td> <td>35-115</td> </tr> <tr> <td>Nitrobenzene-d5</td> <td>74 %</td> <td>37-122</td> </tr> <tr> <td>Phenol-d5</td> <td>80 %</td> <td>34-121</td> </tr> <tr> <td>Terphenyl-d14</td> <td>86 %</td> <td>54-127</td> </tr> </table>										Surrogate	Recovery	Control Limits	2,4,6-Tribromophenol	92 %	39-132	2-Fluorobiphenyl	86 %	44-115	2-Fluorophenol	80 %	35-115	Nitrobenzene-d5	74 %	37-122	Phenol-d5	80 %	34-121	Terphenyl-d14	86 %	54-127
Surrogate	Recovery	Control Limits																												
2,4,6-Tribromophenol	92 %	39-132																												
2-Fluorobiphenyl	86 %	44-115																												
2-Fluorophenol	80 %	35-115																												
Nitrobenzene-d5	74 %	37-122																												
Phenol-d5	80 %	34-121																												
Terphenyl-d14	86 %	54-127																												

### Total Metals

Mercury	0.022 J	mg/kg dry	0.057	0.020	1	7471B	4/29/19 13:22	MMR	P9D0510
Arsenic	3.8	mg/kg dry	1.1	0.15	1	6010D	4/26/19 13:43	JAB	P9D0478
Barium	70	mg/kg dry	11	3.4	1	6010D	4/26/19 13:43	JAB	P9D0478
Cadmium	0.039 U	mg/kg dry	0.57	0.039	1	6010D	4/26/19 13:43	JAB	P9D0478
Chromium	78	mg/kg dry	1.1	0.087	1	6010D	4/26/19 13:43	JAB	P9D0478
Lead	16	mg/kg dry	1.1	0.19	1	6010D	4/26/19 13:43	JAB	P9D0478
Selenium	0.31 U	mg/kg dry	1.1	0.31	1	6010D	4/26/19 13:43	JAB	P9D0478
Silver	0.035 U	mg/kg dry	0.57	0.035	1	6010D	4/26/19 13:43	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00088 U	mg/kg dry	0.0072	0.00088	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1,1-Trichloroethane	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00052 U	mg/kg dry	0.0072	0.00052	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1,2-Trichloroethane	0.00077 U	mg/kg dry	0.0072	0.00077	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1-Dichloroethane	0.0013 U	mg/kg dry	0.0072	0.0013	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1-Dichloroethylene	0.0013 U	mg/kg dry	0.0072	0.0013	1	8260B	4/26/19 21:37	JLB	P9D0530
1,1-Dichloropropylene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2,3-Trichlorobenzene	0.0010 U	mg/kg dry	0.014	0.0010	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2,3-Trichloropropane	0.00081 U	mg/kg dry	0.0072	0.00081	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00068 U	mg/kg dry	0.014	0.00068	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00076 U	mg/kg dry	0.0072	0.00076	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2-Dibromoethane	0.00064 U	mg/kg dry	0.0072	0.00064	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2-Dichlorobenzene	0.00080 U	mg/kg dry	0.0072	0.00080	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2-Dichloroethane	0.00085 U	mg/kg dry	0.0072	0.00085	1	8260B	4/26/19 21:37	JLB	P9D0530
1,2-Dichloropropane	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00090 U	mg/kg dry	0.0072	0.00090	1	8260B	4/26/19 21:37	JLB	P9D0530
1,3-Dichlorobenzene	0.00089 U	mg/kg dry	0.0072	0.00089	1	8260B	4/26/19 21:37	JLB	P9D0530
1,3-Dichloropropane	0.00060 U	mg/kg dry	0.0072	0.00060	1	8260B	4/26/19 21:37	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-0-2  
Prism Sample ID: 9040348-01  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:05  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00091 U	mg/kg dry	0.0072	0.00091	1	8260B	4/26/19 21:37	JLB	P9D0530
2,2-Dichloropropane	0.00089 U	mg/kg dry	0.0072	0.00089	1	8260B	4/26/19 21:37	JLB	P9D0530
2-Chlorotoluene	0.00096 U	mg/kg dry	0.0072	0.00096	1	8260B	4/26/19 21:37	JLB	P9D0530
4-Chlorotoluene	0.00082 U	mg/kg dry	0.0072	0.00082	1	8260B	4/26/19 21:37	JLB	P9D0530
4-Isopropyltoluene	0.0018 U	mg/kg dry	0.0072	0.0018	1	8260B	4/26/19 21:37	JLB	P9D0530
<b>Acetone</b>	<b>0.26</b>	<b>mg/kg dry</b>	<b>0.029</b>	<b>0.0018</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 21:37</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
Bromobenzene	0.0010 U	mg/kg dry	0.0072	0.0010	1	8260B	4/26/19 21:37	JLB	P9D0530
Bromochloromethane	0.0012 U	mg/kg dry	0.0072	0.0012	1	8260B	4/26/19 21:37	JLB	P9D0530
Bromodichloromethane	0.00068 U	mg/kg dry	0.0072	0.00068	1	8260B	4/26/19 21:37	JLB	P9D0530
Bromoform	0.00056 U	mg/kg dry	0.0072	0.00056	1	8260B	4/26/19 21:37	JLB	P9D0530
Bromomethane	0.0035 U	mg/kg dry	0.014	0.0035	1	8260B	4/26/19 21:37	JLB	P9D0530
Carbon Tetrachloride	0.0014 U	mg/kg dry	0.0072	0.0014	1	8260B	4/26/19 21:37	JLB	P9D0530
Chlorobenzene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
Chloroethane	0.0014 U	mg/kg dry	0.014	0.0014	1	8260B	4/26/19 21:37	JLB	P9D0530
Chloroform	0.00088 U	mg/kg dry	0.0072	0.00088	1	8260B	4/26/19 21:37	JLB	P9D0530
Chloromethane	0.0022 U	mg/kg dry	0.014	0.0022	1	8260B	4/26/19 21:37	JLB	P9D0530
cis-1,2-Dichloroethylene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00071 U	mg/kg dry	0.0072	0.00071	1	8260B	4/26/19 21:37	JLB	P9D0530
Dibromochloromethane	0.00048 U	mg/kg dry	0.0072	0.00048	1	8260B	4/26/19 21:37	JLB	P9D0530
Dichlorodifluoromethane	0.0020 U	mg/kg dry	0.014	0.0020	1	8260B	4/26/19 21:37	JLB	P9D0530
Ethylbenzene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
Isopropyl Ether	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00083 U	mg/kg dry	0.0072	0.00083	1	8260B	4/26/19 21:37	JLB	P9D0530
m,p-Xylenes	0.0018 U	mg/kg dry	0.014	0.0018	1	8260B	4/26/19 21:37	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00050 U	mg/kg dry	0.029	0.00050	1	8260B	4/26/19 21:37	JLB	P9D0530
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.049</b>	<b>mg/kg dry</b>	<b>0.029</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 21:37</b>	<b>JLB</b>	<b>P9D0530</b>
Methyl Isobutyl Ketone	0.00059 U	mg/kg dry	0.029	0.00059	1	8260B	4/26/19 21:37	JLB	P9D0530
Methylene Chloride	0.0012 U	mg/kg dry	0.0072	0.0012	1	8260B	4/26/19 21:37	JLB	P9D0530
Methyl-tert-Butyl Ether	0.0010 U	mg/kg dry	0.0072	0.0010	1	8260B	4/26/19 21:37	JLB	P9D0530
Naphthalene	0.00072 U	mg/kg dry	0.014	0.00072	1	8260B	4/26/19 21:37	JLB	P9D0530
n-Butylbenzene	0.00067 U	mg/kg dry	0.0072	0.00067	1	8260B	4/26/19 21:37	JLB	P9D0530
n-Propylbenzene	0.0010 U	mg/kg dry	0.0072	0.0010	1	8260B	4/26/19 21:37	JLB	P9D0530
o-Xylene	0.00076 U	mg/kg dry	0.0072	0.00076	1	8260B	4/26/19 21:37	JLB	P9D0530
sec-Butylbenzene	0.00077 U	mg/kg dry	0.0072	0.00077	1	8260B	4/26/19 21:37	JLB	P9D0530
Styrene	0.00070 U	mg/kg dry	0.0072	0.00070	1	8260B	4/26/19 21:37	JLB	P9D0530
tert-Butylbenzene	0.00085 U	mg/kg dry	0.0072	0.00085	1	8260B	4/26/19 21:37	JLB	P9D0530
Tetrachloroethylene	0.0013 U	mg/kg dry	0.0072	0.0013	1	8260B	4/26/19 21:37	JLB	P9D0530
Toluene	0.0011 U	mg/kg dry	0.0072	0.0011	1	8260B	4/26/19 21:37	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0014 U	mg/kg dry	0.0072	0.0014	1	8260B	4/26/19 21:37	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00061 U	mg/kg dry	0.0072	0.00061	1	8260B	4/26/19 21:37	JLB	P9D0530
Trichloroethylene	0.0014 U	mg/kg dry	0.0072	0.0014	1	8260B	4/26/19 21:37	JLB	P9D0530
Trichlorofluoromethane	0.0019 U	mg/kg dry	0.014	0.0019	1	8260B	4/26/19 21:37	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-0-2  
Prism Sample ID: 9040348-01  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:05  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl acetate	0.00078 U	mg/kg dry	0.014	0.00078	1	8260B	4/26/19 21:37	JLB	P9D0530
Vinyl chloride	0.0014 U	mg/kg dry	0.014	0.0014	1	8260B	4/26/19 21:37	JLB	P9D0530
Xylenes, total	0.0026 U	mg/kg dry	0.022	0.0026	1	8260B	4/26/19 21:37	JLB	P9D0530
Surrogate							Recovery	Control Limits	
4-Bromofluorobenzene							108 %	70-130	
Dibromofluoromethane							118 %	84-123	
Toluene-d8							107 %	76-129	

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
 Sample Matrix: Solid

Client Sample ID: P623-SB1-6-8  
 Prism Sample ID: 9040348-02  
 Prism Work Order: 9040348  
 Time Collected: 04/17/19 16:25  
 Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.0	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.017	mg/kg dry	0.0059	0.0022	1	8081B	4/24/19 20:20	ZRC	P9D0422
4,4'-DDE	0.038	mg/kg dry	0.0059	0.0024	1	8081B	4/24/19 20:20	ZRC	P9D0422
4,4'-DDT	0.0091	mg/kg dry	0.0059	0.0018	1	8081B	4/24/19 20:20	ZRC	P9D0422
Aldrin	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/24/19 20:20	ZRC	P9D0422
alpha-BHC	0.0014 U	mg/kg dry	0.0059	0.0014	1	8081B	4/24/19 20:20	ZRC	P9D0422
cis-Chlordane	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/24/19 20:20	ZRC	P9D0422
beta-BHC	0.0024 U	mg/kg dry	0.0059	0.0024	1	8081B	4/24/19 20:20	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.059	0.012	1	8081B	4/24/19 20:20	ZRC	P9D0422
delta-BHC	0.0015 U	mg/kg dry	0.0059	0.0015	1	8081B	4/24/19 20:20	ZRC	P9D0422
Dieldrin	0.0025 U	mg/kg dry	0.0059	0.0025	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endosulfan I	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endosulfan II	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endosulfan Sulfate	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endrin	0.0023 U	mg/kg dry	0.0059	0.0023	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endrin Aldehyde	0.0025 U	mg/kg dry	0.0059	0.0025	1	8081B	4/24/19 20:20	ZRC	P9D0422
Endrin Ketone	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/24/19 20:20	ZRC	P9D0422
gamma-BHC	0.0015 U	mg/kg dry	0.0059	0.0015	1	8081B	4/24/19 20:20	ZRC	P9D0422
trans-Chlordane	0.0020 U	mg/kg dry	0.0059	0.0020	1	8081B	4/24/19 20:20	ZRC	P9D0422
Heptachlor	0.0016 U	mg/kg dry	0.0059	0.0016	1	8081B	4/24/19 20:20	ZRC	P9D0422
Heptachlor Epoxide	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/24/19 20:20	ZRC	P9D0422
Methoxychlor	0.0031 U	mg/kg dry	0.0059	0.0031	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.012 U	mg/kg dry	0.059	0.012	1	8081B	4/24/19 20:20	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
58 %									
Tetrachloro-m-xylene									
71 %									
Control Limits									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.061 U	mg/kg dry	0.39	0.061	1	8270D	4/24/19 14:25	JMV	P9D0401
1,2-Dichlorobenzene	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 14:25	JMV	P9D0401
1,3-Dichlorobenzene	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 14:25	JMV	P9D0401
1,4-Dichlorobenzene	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 14:25	JMV	P9D0401
1-Methylnaphthalene	0.076 U	mg/kg dry	0.39	0.076	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4,5-Trichlorophenol	0.063 U	mg/kg dry	0.39	0.063	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4,6-Trichlorophenol	0.074 U	mg/kg dry	0.39	0.074	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4-Dichlorophenol	0.076 U	mg/kg dry	0.39	0.076	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4-Dimethylphenol	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4-Dinitrophenol	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 14:25	JMV	P9D0401
2,4-Dinitrotoluene	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 14:25	JMV	P9D0401
2,6-Dinitrotoluene	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 14:25	JMV	P9D0401
2-Chloronaphthalene	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 14:25	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-6-8  
Prism Sample ID: 9040348-02  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:25  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 14:25	JMV	P9D0401
2-Methylnaphthalene	0.063 U	mg/kg dry	0.39	0.063	1	8270D	4/24/19 14:25	JMV	P9D0401
2-Methylphenol	0.050 U	mg/kg dry	0.39	0.050	1	8270D	4/24/19 14:25	JMV	P9D0401
2-Nitrophenol	0.071 U	mg/kg dry	0.39	0.071	1	8270D	4/24/19 14:25	JMV	P9D0401
3,3'-Dichlorobenzidine	0.077 U	mg/kg dry	0.39	0.077	1	8270D	4/24/19 14:25	JMV	P9D0401
3/4-Methylphenol	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 14:25	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.059 U	mg/kg dry	0.39	0.059	1	8270D	4/24/19 14:25	JMV	P9D0401
4-Bromophenyl phenyl ether	0.067 U	mg/kg dry	0.39	0.067	1	8270D	4/24/19 14:25	JMV	P9D0401
4-Chloro-3-methylphenol	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 14:25	JMV	P9D0401
4-Chloroaniline	0.047 U	mg/kg dry	0.39	0.047	1	8270D	4/24/19 14:25	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 14:25	JMV	P9D0401
4-Nitrophenol	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 14:25	JMV	P9D0401
Acenaphthene	0.053 U	mg/kg dry	0.39	0.053	1	8270D	4/24/19 14:25	JMV	P9D0401
Acenaphthylene	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 14:25	JMV	P9D0401
Anthracene	0.063 U	mg/kg dry	0.39	0.063	1	8270D	4/24/19 14:25	JMV	P9D0401
Azobenzene	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzo(a)anthracene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzo(a)pyrene	0.042 U	mg/kg dry	0.39	0.042	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzo(b)fluoranthene	0.045 U	mg/kg dry	0.39	0.045	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzo(g,h,i)perylene	0.043 U	mg/kg dry	0.39	0.043	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzo(k)fluoranthene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzoic Acid	0.033 U	mg/kg dry	0.39	0.033	1	8270D	4/24/19 14:25	JMV	P9D0401
Benzyl alcohol	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 14:25	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.068 U	mg/kg dry	0.39	0.068	1	8270D	4/24/19 14:25	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 14:25	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.067 U	mg/kg dry	0.39	0.067	1	8270D	4/24/19 14:25	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.058 U	mg/kg dry	0.39	0.058	1	8270D	4/24/19 14:25	JMV	P9D0401
Butyl benzyl phthalate	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 14:25	JMV	P9D0401
Chrysene	0.049 U	mg/kg dry	0.39	0.049	1	8270D	4/24/19 14:25	JMV	P9D0401
Dibenzo(a,h)anthracene	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 14:25	JMV	P9D0401
Dibenzofuran	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 14:25	JMV	P9D0401
Diethyl phthalate	0.054 U	mg/kg dry	0.39	0.054	1	8270D	4/24/19 14:25	JMV	P9D0401
Dimethyl phthalate	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 14:25	JMV	P9D0401
Di-n-butyl phthalate	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 14:25	JMV	P9D0401
Di-n-octyl phthalate	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 14:25	JMV	P9D0401
Fluoranthene	0.050 U	mg/kg dry	0.39	0.050	1	8270D	4/24/19 14:25	JMV	P9D0401
Fluorene	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 14:25	JMV	P9D0401
Hexachlorobenzene	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 14:25	JMV	P9D0401
Hexachlorobutadiene	0.070 U	mg/kg dry	0.39	0.070	1	8270D	4/24/19 14:25	JMV	P9D0401
Hexachlorocyclopentadiene	0.070 U	mg/kg dry	0.39	0.070	1	8270D	4/24/19 14:25	JMV	P9D0401
Hexachloroethane	0.066 U	mg/kg dry	0.39	0.066	1	8270D	4/24/19 14:25	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.045 U	mg/kg dry	0.39	0.045	1	8270D	4/24/19 14:25	JMV	P9D0401
Isophorone	0.053 U	mg/kg dry	0.39	0.053	1	8270D	4/24/19 14:25	JMV	P9D0401
Naphthalene	0.063 U	mg/kg dry	0.39	0.063	1	8270D	4/24/19 14:25	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-6-8  
Prism Sample ID: 9040348-02  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:25  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID																					
Nitrobenzene	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 14:25	JMV	P9D0401																					
N-Nitroso-di-n-propylamine	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 14:25	JMV	P9D0401																					
N-Nitrosodiphenylamine	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 14:25	JMV	P9D0401																					
Pentachlorophenol	0.046 U	mg/kg dry	0.39	0.046	1	8270D	4/24/19 14:25	JMV	P9D0401																					
Phenanthrene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 14:25	JMV	P9D0401																					
Phenol	0.058 U	mg/kg dry	0.39	0.058	1	8270D	4/24/19 14:25	JMV	P9D0401																					
Pyrene	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 14:25	JMV	P9D0401																					
Pyridine	0.068 U	mg/kg dry	0.39	0.068	1	8270D	4/24/19 14:25	JMV	P9D0401																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Surrogate</th> <th style="width: 30%;">Recovery</th> <th style="width: 40%;">Control Limits</th> </tr> <tr> <td>2,4,6-Tribromophenol</td> <td>88 %</td> <td>39-132</td> </tr> <tr> <td>2-Fluorobiphenyl</td> <td>81 %</td> <td>44-115</td> </tr> <tr> <td>2-Fluorophenol</td> <td>80 %</td> <td>35-115</td> </tr> <tr> <td>Nitrobenzene-d5</td> <td>74 %</td> <td>37-122</td> </tr> <tr> <td>Phenol-d5</td> <td>79 %</td> <td>34-121</td> </tr> <tr> <td>Terphenyl-d14</td> <td>84 %</td> <td>54-127</td> </tr> </table>										Surrogate	Recovery	Control Limits	2,4,6-Tribromophenol	88 %	39-132	2-Fluorobiphenyl	81 %	44-115	2-Fluorophenol	80 %	35-115	Nitrobenzene-d5	74 %	37-122	Phenol-d5	79 %	34-121	Terphenyl-d14	84 %	54-127
Surrogate	Recovery	Control Limits																												
2,4,6-Tribromophenol	88 %	39-132																												
2-Fluorobiphenyl	81 %	44-115																												
2-Fluorophenol	80 %	35-115																												
Nitrobenzene-d5	74 %	37-122																												
Phenol-d5	79 %	34-121																												
Terphenyl-d14	84 %	54-127																												

### Total Metals

Mercury	0.035 J	mg/kg dry	0.060	0.021	1	7471B	4/29/19 13:26	MMR	P9D0510
Arsenic	5.2	mg/kg dry	1.2	0.16	1	6010D	4/26/19 14:07	JAB	P9D0478
Barium	16	mg/kg dry	12	3.6	1	6010D	4/26/19 14:07	JAB	P9D0478
Cadmium	0.040 U	mg/kg dry	0.60	0.040	1	6010D	4/26/19 14:07	JAB	P9D0478
Chromium	73	mg/kg dry	1.2	0.090	1	6010D	4/26/19 14:07	JAB	P9D0478
Lead	11	mg/kg dry	1.2	0.20	1	6010D	4/26/19 14:07	JAB	P9D0478
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/26/19 14:07	JAB	P9D0478
Silver	0.037 U	mg/kg dry	0.60	0.037	1	6010D	4/26/19 14:07	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00065 U	mg/kg dry	0.0053	0.00065	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1,1-Trichloroethane	0.00078 U	mg/kg dry	0.0053	0.00078	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00039 U	mg/kg dry	0.0053	0.00039	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1,2-Trichloroethane	0.00057 U	mg/kg dry	0.0053	0.00057	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1-Dichloroethane	0.00096 U	mg/kg dry	0.0053	0.00096	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1-Dichloroethylene	0.00097 U	mg/kg dry	0.0053	0.00097	1	8260B	4/26/19 15:38	JLB	P9D0530
1,1-Dichloropropylene	0.00082 U	mg/kg dry	0.0053	0.00082	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00076 U	mg/kg dry	0.011	0.00076	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2,3-Trichloropropane	0.00060 U	mg/kg dry	0.0053	0.00060	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00051 U	mg/kg dry	0.011	0.00051	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00056 U	mg/kg dry	0.0053	0.00056	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2-Dibromoethane	0.00047 U	mg/kg dry	0.0053	0.00047	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2-Dichlorobenzene	0.00059 U	mg/kg dry	0.0053	0.00059	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2-Dichloroethane	0.00063 U	mg/kg dry	0.0053	0.00063	1	8260B	4/26/19 15:38	JLB	P9D0530
1,2-Dichloropropane	0.00080 U	mg/kg dry	0.0053	0.00080	1	8260B	4/26/19 15:38	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00067 U	mg/kg dry	0.0053	0.00067	1	8260B	4/26/19 15:38	JLB	P9D0530
1,3-Dichlorobenzene	0.00066 U	mg/kg dry	0.0053	0.00066	1	8260B	4/26/19 15:38	JLB	P9D0530
1,3-Dichloropropane	0.00044 U	mg/kg dry	0.0053	0.00044	1	8260B	4/26/19 15:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-6-8  
Prism Sample ID: 9040348-02  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:25  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00067 U	mg/kg dry	0.0053	0.00067	1	8260B	4/26/19 15:38	JLB	P9D0530
2,2-Dichloropropane	0.00066 U	mg/kg dry	0.0053	0.00066	1	8260B	4/26/19 15:38	JLB	P9D0530
2-Chlorotoluene	0.00071 U	mg/kg dry	0.0053	0.00071	1	8260B	4/26/19 15:38	JLB	P9D0530
4-Chlorotoluene	0.00060 U	mg/kg dry	0.0053	0.00060	1	8260B	4/26/19 15:38	JLB	P9D0530
4-Isopropyltoluene	0.0013 U	mg/kg dry	0.0053	0.0013	1	8260B	4/26/19 15:38	JLB	P9D0530
<b>Acetone</b>	<b>0.10</b>	<b>mg/kg dry</b>	<b>0.021</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 15:38</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.00083 U	mg/kg dry	0.0053	0.00083	1	8260B	4/26/19 15:38	JLB	P9D0530
Bromobenzene	0.00073 U	mg/kg dry	0.0053	0.00073	1	8260B	4/26/19 15:38	JLB	P9D0530
Bromochloromethane	0.00087 U	mg/kg dry	0.0053	0.00087	1	8260B	4/26/19 15:38	JLB	P9D0530
Bromodichloromethane	0.00050 U	mg/kg dry	0.0053	0.00050	1	8260B	4/26/19 15:38	JLB	P9D0530
Bromoform	0.00041 U	mg/kg dry	0.0053	0.00041	1	8260B	4/26/19 15:38	JLB	P9D0530
Bromomethane	0.0026 U	mg/kg dry	0.011	0.0026	1	8260B	4/26/19 15:38	JLB	P9D0530
Carbon Tetrachloride	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 15:38	JLB	P9D0530
Chlorobenzene	0.00083 U	mg/kg dry	0.0053	0.00083	1	8260B	4/26/19 15:38	JLB	P9D0530
Chloroethane	0.0010 U	mg/kg dry	0.011	0.0010	1	8260B	4/26/19 15:38	JLB	P9D0530
Chloroform	0.00065 U	mg/kg dry	0.0053	0.00065	1	8260B	4/26/19 15:38	JLB	P9D0530
Chloromethane	0.0016 U	mg/kg dry	0.011	0.0016	1	8260B	4/26/19 15:38	JLB	P9D0530
cis-1,2-Dichloroethylene	0.00083 U	mg/kg dry	0.0053	0.00083	1	8260B	4/26/19 15:38	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00052 U	mg/kg dry	0.0053	0.00052	1	8260B	4/26/19 15:38	JLB	P9D0530
Dibromochloromethane	0.00035 U	mg/kg dry	0.0053	0.00035	1	8260B	4/26/19 15:38	JLB	P9D0530
Dichlorodifluoromethane	0.0015 U	mg/kg dry	0.011	0.0015	1	8260B	4/26/19 15:38	JLB	P9D0530
Ethylbenzene	0.00080 U	mg/kg dry	0.0053	0.00080	1	8260B	4/26/19 15:38	JLB	P9D0530
Isopropyl Ether	0.00078 U	mg/kg dry	0.0053	0.00078	1	8260B	4/26/19 15:38	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00062 U	mg/kg dry	0.0053	0.00062	1	8260B	4/26/19 15:38	JLB	P9D0530
m,p-Xylenes	0.0014 U	mg/kg dry	0.011	0.0014	1	8260B	4/26/19 15:38	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00037 U	mg/kg dry	0.021	0.00037	1	8260B	4/26/19 15:38	JLB	P9D0530
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.0075 J</b>	<b>mg/kg dry</b>	<b>0.021</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 15:38</b>	<b>JLB</b>	<b>P9D0530</b>
Methyl Isobutyl Ketone	0.00043 U	mg/kg dry	0.021	0.00043	1	8260B	4/26/19 15:38	JLB	P9D0530
Methylene Chloride	0.00086 U	mg/kg dry	0.0053	0.00086	1	8260B	4/26/19 15:38	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00074 U	mg/kg dry	0.0053	0.00074	1	8260B	4/26/19 15:38	JLB	P9D0530
Naphthalene	0.00053 U	mg/kg dry	0.011	0.00053	1	8260B	4/26/19 15:38	JLB	P9D0530
n-Butylbenzene	0.00050 U	mg/kg dry	0.0053	0.00050	1	8260B	4/26/19 15:38	JLB	P9D0530
n-Propylbenzene	0.00077 U	mg/kg dry	0.0053	0.00077	1	8260B	4/26/19 15:38	JLB	P9D0530
o-Xylene	0.00056 U	mg/kg dry	0.0053	0.00056	1	8260B	4/26/19 15:38	JLB	P9D0530
sec-Butylbenzene	0.00057 U	mg/kg dry	0.0053	0.00057	1	8260B	4/26/19 15:38	JLB	P9D0530
Styrene	0.00051 U	mg/kg dry	0.0053	0.00051	1	8260B	4/26/19 15:38	JLB	P9D0530
tert-Butylbenzene	0.00063 U	mg/kg dry	0.0053	0.00063	1	8260B	4/26/19 15:38	JLB	P9D0530
Tetrachloroethylene	0.00096 U	mg/kg dry	0.0053	0.00096	1	8260B	4/26/19 15:38	JLB	P9D0530
Toluene	0.00084 U	mg/kg dry	0.0053	0.00084	1	8260B	4/26/19 15:38	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 15:38	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00045 U	mg/kg dry	0.0053	0.00045	1	8260B	4/26/19 15:38	JLB	P9D0530
Trichloroethylene	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 15:38	JLB	P9D0530
Trichlorofluoromethane	0.0014 U	mg/kg dry	0.011	0.0014	1	8260B	4/26/19 15:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB1-6-8  
Prism Sample ID: 9040348-02  
Prism Work Order: 9040348  
Time Collected: 04/17/19 16:25  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl acetate	0.00057 U	mg/kg dry	0.011	0.00057	1	8260B	4/26/19 15:38	JLB	P9D0530
Vinyl chloride	0.0010 U	mg/kg dry	0.011	0.0010	1	8260B	4/26/19 15:38	JLB	P9D0530
Xylenes, total	0.0019 U	mg/kg dry	0.016	0.0019	1	8260B	4/26/19 15:38	JLB	P9D0530
Surrogate							Recovery	Control Limits	
4-Bromofluorobenzene							108 %	70-130	
Dibromofluoromethane							111 %	84-123	
Toluene-d8							106 %	76-129	

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Attn: John Maas  
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Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-2-4  
Prism Sample ID: 9040348-03  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:10  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	74.0	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0025 U	mg/kg dry	0.0067	0.0025	1	8081B	4/24/19 20:32	ZRC	P9D0422
4,4'-DDE	0.0028 U	mg/kg dry	0.0067	0.0028	1	8081B	4/24/19 20:32	ZRC	P9D0422
4,4'-DDT	0.0021 U	mg/kg dry	0.0067	0.0021	1	8081B	4/24/19 20:32	ZRC	P9D0422
Aldrin	0.0025 U	mg/kg dry	0.0067	0.0025	1	8081B	4/24/19 20:32	ZRC	P9D0422
alpha-BHC	0.0016 U	mg/kg dry	0.0067	0.0016	1	8081B	4/24/19 20:32	ZRC	P9D0422
cis-Chlordane	0.0025 U	mg/kg dry	0.0067	0.0025	1	8081B	4/24/19 20:32	ZRC	P9D0422
beta-BHC	0.0027 U	mg/kg dry	0.0067	0.0027	1	8081B	4/24/19 20:32	ZRC	P9D0422
Chlordane	0.013 U	mg/kg dry	0.067	0.013	1	8081B	4/24/19 20:32	ZRC	P9D0422
delta-BHC	0.0017 U	mg/kg dry	0.0067	0.0017	1	8081B	4/24/19 20:32	ZRC	P9D0422
Dieldrin	0.0028 U	mg/kg dry	0.0067	0.0028	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endosulfan I	0.0024 U	mg/kg dry	0.0067	0.0024	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endosulfan II	0.0024 U	mg/kg dry	0.0067	0.0024	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endosulfan Sulfate	0.0024 U	mg/kg dry	0.0067	0.0024	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endrin	0.0026 U	mg/kg dry	0.0067	0.0026	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endrin Aldehyde	0.0028 U	mg/kg dry	0.0067	0.0028	1	8081B	4/24/19 20:32	ZRC	P9D0422
Endrin Ketone	0.0025 U	mg/kg dry	0.0067	0.0025	1	8081B	4/24/19 20:32	ZRC	P9D0422
gamma-BHC	0.0017 U	mg/kg dry	0.0067	0.0017	1	8081B	4/24/19 20:32	ZRC	P9D0422
trans-Chlordane	0.0023 U	mg/kg dry	0.0067	0.0023	1	8081B	4/24/19 20:32	ZRC	P9D0422
Heptachlor	0.0018 U	mg/kg dry	0.0067	0.0018	1	8081B	4/24/19 20:32	ZRC	P9D0422
Heptachlor Epoxide	0.0024 U	mg/kg dry	0.0067	0.0024	1	8081B	4/24/19 20:32	ZRC	P9D0422
Methoxychlor	0.0036 U	mg/kg dry	0.0067	0.0036	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.013 U	mg/kg dry	0.067	0.013	1	8081B	4/24/19 20:32	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
69 %									
Tetrachloro-m-xylene									
66 %									
Control Limits									
26-204									
40-162									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.070 U	mg/kg dry	0.45	0.070	1	8270D	4/24/19 19:14	JMV	P9D0401
1,2-Dichlorobenzene	0.068 U	mg/kg dry	0.45	0.068	1	8270D	4/24/19 19:14	JMV	P9D0401
1,3-Dichlorobenzene	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
1,4-Dichlorobenzene	0.065 U	mg/kg dry	0.45	0.065	1	8270D	4/24/19 19:14	JMV	P9D0401
1-Methylnaphthalene	0.086 U	mg/kg dry	0.45	0.086	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4,5-Trichlorophenol	0.072 U	mg/kg dry	0.45	0.072	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4,6-Trichlorophenol	0.084 U	mg/kg dry	0.45	0.084	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4-Dichlorophenol	0.086 U	mg/kg dry	0.45	0.086	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4-Dimethylphenol	0.068 U	mg/kg dry	0.45	0.068	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4-Dinitrophenol	0.062 U	mg/kg dry	0.45	0.062	1	8270D	4/24/19 19:14	JMV	P9D0401
2,4-Dinitrotoluene	0.054 U	mg/kg dry	0.45	0.054	1	8270D	4/24/19 19:14	JMV	P9D0401
2,6-Dinitrotoluene	0.059 U	mg/kg dry	0.45	0.059	1	8270D	4/24/19 19:14	JMV	P9D0401
2-Chloronaphthalene	0.065 U	mg/kg dry	0.45	0.065	1	8270D	4/24/19 19:14	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-2-4  
Prism Sample ID: 9040348-03  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:10  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
2-Methylnaphthalene	0.071 U	mg/kg dry	0.45	0.071	1	8270D	4/24/19 19:14	JMV	P9D0401
2-Methylphenol	0.057 U	mg/kg dry	0.45	0.057	1	8270D	4/24/19 19:14	JMV	P9D0401
2-Nitrophenol	0.081 U	mg/kg dry	0.45	0.081	1	8270D	4/24/19 19:14	JMV	P9D0401
3,3'-Dichlorobenzidine	0.088 U	mg/kg dry	0.45	0.088	1	8270D	4/24/19 19:14	JMV	P9D0401
3/4-Methylphenol	0.055 U	mg/kg dry	0.45	0.055	1	8270D	4/24/19 19:14	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.067 U	mg/kg dry	0.45	0.067	1	8270D	4/24/19 19:14	JMV	P9D0401
4-Bromophenyl phenyl ether	0.077 U	mg/kg dry	0.45	0.077	1	8270D	4/24/19 19:14	JMV	P9D0401
4-Chloro-3-methylphenol	0.062 U	mg/kg dry	0.45	0.062	1	8270D	4/24/19 19:14	JMV	P9D0401
4-Chloroaniline	0.054 U	mg/kg dry	0.45	0.054	1	8270D	4/24/19 19:14	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.058 U	mg/kg dry	0.45	0.058	1	8270D	4/24/19 19:14	JMV	P9D0401
4-Nitrophenol	0.069 U	mg/kg dry	0.45	0.069	1	8270D	4/24/19 19:14	JMV	P9D0401
Acenaphthene	0.061 U	mg/kg dry	0.45	0.061	1	8270D	4/24/19 19:14	JMV	P9D0401
Acenaphthylene	0.065 U	mg/kg dry	0.45	0.065	1	8270D	4/24/19 19:14	JMV	P9D0401
Anthracene	0.072 U	mg/kg dry	0.45	0.072	1	8270D	4/24/19 19:14	JMV	P9D0401
Azobenzene	0.059 U	mg/kg dry	0.45	0.059	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Benzo(a)anthracene</b>	<b>0.31 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
<b>Benzo(a)pyrene</b>	<b>0.24 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.048</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
<b>Benzo(b)fluoranthene</b>	<b>0.34 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.052</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
<b>Benzo(g,h,i)perylene</b>	<b>0.14 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.049</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
<b>Benzo(k)fluoranthene</b>	<b>0.12 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Benzoic Acid	0.038 U	mg/kg dry	0.45	0.038	1	8270D	4/24/19 19:14	JMV	P9D0401
Benzyl alcohol	0.059 U	mg/kg dry	0.45	0.059	1	8270D	4/24/19 19:14	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.077 U	mg/kg dry	0.45	0.077	1	8270D	4/24/19 19:14	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.076 U	mg/kg dry	0.45	0.076	1	8270D	4/24/19 19:14	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.066 U	mg/kg dry	0.45	0.066	1	8270D	4/24/19 19:14	JMV	P9D0401
Butyl benzyl phthalate	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Chrysene</b>	<b>0.27 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.056</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Dibenzo(a,h)anthracene	0.054 U	mg/kg dry	0.45	0.054	1	8270D	4/24/19 19:14	JMV	P9D0401
Dibenzofuran	0.068 U	mg/kg dry	0.45	0.068	1	8270D	4/24/19 19:14	JMV	P9D0401
Diethyl phthalate	0.061 U	mg/kg dry	0.45	0.061	1	8270D	4/24/19 19:14	JMV	P9D0401
Dimethyl phthalate	0.059 U	mg/kg dry	0.45	0.059	1	8270D	4/24/19 19:14	JMV	P9D0401
Di-n-butyl phthalate	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
Di-n-octyl phthalate	0.055 U	mg/kg dry	0.45	0.055	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Fluoranthene</b>	<b>0.57</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.057</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Fluorene	0.064 U	mg/kg dry	0.45	0.064	1	8270D	4/24/19 19:14	JMV	P9D0401
Hexachlorobenzene	0.071 U	mg/kg dry	0.45	0.071	1	8270D	4/24/19 19:14	JMV	P9D0401
Hexachlorobutadiene	0.080 U	mg/kg dry	0.45	0.080	1	8270D	4/24/19 19:14	JMV	P9D0401
Hexachlorocyclopentadiene	0.079 U	mg/kg dry	0.45	0.079	1	8270D	4/24/19 19:14	JMV	P9D0401
Hexachloroethane	0.075 U	mg/kg dry	0.45	0.075	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Indeno(1,2,3-cd)pyrene</b>	<b>0.16 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Isophorone	0.060 U	mg/kg dry	0.45	0.060	1	8270D	4/24/19 19:14	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-2-4  
Prism Sample ID: 9040348-03  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:10  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Naphthalene	0.072 U	mg/kg dry	0.45	0.072	1	8270D	4/24/19 19:14	JMV	P9D0401
Nitrobenzene	0.063 U	mg/kg dry	0.45	0.063	1	8270D	4/24/19 19:14	JMV	P9D0401
N-Nitroso-di-n-propylamine	0.070 U	mg/kg dry	0.45	0.070	1	8270D	4/24/19 19:14	JMV	P9D0401
N-Nitrosodiphenylamine	0.068 U	mg/kg dry	0.45	0.068	1	8270D	4/24/19 19:14	JMV	P9D0401
Pentachlorophenol	0.053 U	mg/kg dry	0.45	0.053	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Phenanthrene</b>	<b>0.24 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Phenol	0.066 U	mg/kg dry	0.45	0.066	1	8270D	4/24/19 19:14	JMV	P9D0401
<b>Pyrene</b>	<b>0.43 J</b>	<b>mg/kg dry</b>	<b>0.45</b>	<b>0.059</b>	<b>1</b>	<b>8270D</b>	<b>4/24/19 19:14</b>	<b>JMV</b>	<b>P9D0401</b>
Pyridine	0.078 U	mg/kg dry	0.45	0.078	1	8270D	4/24/19 19:14	JMV	P9D0401
<hr/>									
Surrogate									
Recovery									
Control Limits									
2,4,6-Tribromophenol									
74 %									
2-Fluorobiphenyl									
91 %									
2-Fluorophenol									
87 %									
Nitrobenzene-d5									
83 %									
Phenol-d5									
86 %									
Terphenyl-d14									
88 %									
54-127									

#### Total Metals

Mercury	0.023 U	mg/kg dry	0.068	0.023	1	7471B	4/29/19 13:31	MMR	P9D0510
<b>Arsenic</b>	<b>3.4</b>	<b>mg/kg dry</b>	<b>1.4</b>	<b>0.18</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:14</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Barium</b>	<b>61</b>	<b>mg/kg dry</b>	<b>14</b>	<b>4.1</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:14</b>	<b>JAB</b>	<b>P9D0478</b>
Cadmium	0.046 U	mg/kg dry	0.68	0.046	1	6010D	4/26/19 14:14	JAB	P9D0478
<b>Chromium</b>	<b>67</b>	<b>mg/kg dry</b>	<b>1.4</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:14</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Lead</b>	<b>13</b>	<b>mg/kg dry</b>	<b>1.4</b>	<b>0.23</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:14</b>	<b>JAB</b>	<b>P9D0478</b>
Selenium	0.37 U	mg/kg dry	1.4	0.37	1	6010D	4/26/19 14:14	JAB	P9D0478
Silver	0.042 U	mg/kg dry	0.68	0.042	1	6010D	4/26/19 14:14	JAB	P9D0478

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00071 U	mg/kg dry	0.0058	0.00071	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1,1-Trichloroethane	0.00086 U	mg/kg dry	0.0058	0.00086	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00042 U	mg/kg dry	0.0058	0.00042	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1,2-Trichloroethane	0.00063 U	mg/kg dry	0.0058	0.00063	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1-Dichloroethane	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1-Dichloroethylene	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
1,1-Dichloropropylene	0.00090 U	mg/kg dry	0.0058	0.00090	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00084 U	mg/kg dry	0.012	0.00084	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2,3-Trichloropropane	0.00066 U	mg/kg dry	0.0058	0.00066	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00056 U	mg/kg dry	0.012	0.00056	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00062 U	mg/kg dry	0.0058	0.00062	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2-Dibromoethane	0.00052 U	mg/kg dry	0.0058	0.00052	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2-Dichlorobenzene	0.00065 U	mg/kg dry	0.0058	0.00065	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2-Dichloroethane	0.00069 U	mg/kg dry	0.0058	0.00069	1	8260B	4/26/19 16:08	JLB	P9D0530
1,2-Dichloropropane	0.00088 U	mg/kg dry	0.0058	0.00088	1	8260B	4/26/19 16:08	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00073 U	mg/kg dry	0.0058	0.00073	1	8260B	4/26/19 16:08	JLB	P9D0530
1,3-Dichlorobenzene	0.00073 U	mg/kg dry	0.0058	0.00073	1	8260B	4/26/19 16:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-2-4  
Prism Sample ID: 9040348-03  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:10  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,3-Dichloropropane	0.00049 U	mg/kg dry	0.0058	0.00049	1	8260B	4/26/19 16:08	JLB	P9D0530
1,4-Dichlorobenzene	0.00074 U	mg/kg dry	0.0058	0.00074	1	8260B	4/26/19 16:08	JLB	P9D0530
2,2-Dichloropropane	0.00073 U	mg/kg dry	0.0058	0.00073	1	8260B	4/26/19 16:08	JLB	P9D0530
2-Chlorotoluene	0.00078 U	mg/kg dry	0.0058	0.00078	1	8260B	4/26/19 16:08	JLB	P9D0530
4-Chlorotoluene	0.00066 U	mg/kg dry	0.0058	0.00066	1	8260B	4/26/19 16:08	JLB	P9D0530
4-Isopropyltoluene	0.0015 U	mg/kg dry	0.0058	0.0015	1	8260B	4/26/19 16:08	JLB	P9D0530
<b>Acetone</b>	<b>0.083</b>	<b>mg/kg dry</b>	<b>0.023</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 16:08</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.00091 U	mg/kg dry	0.0058	0.00091	1	8260B	4/26/19 16:08	JLB	P9D0530
Bromobenzene	0.00081 U	mg/kg dry	0.0058	0.00081	1	8260B	4/26/19 16:08	JLB	P9D0530
Bromochloromethane	0.00096 U	mg/kg dry	0.0058	0.00096	1	8260B	4/26/19 16:08	JLB	P9D0530
Bromodichloromethane	0.00055 U	mg/kg dry	0.0058	0.00055	1	8260B	4/26/19 16:08	JLB	P9D0530
Bromoform	0.00045 U	mg/kg dry	0.0058	0.00045	1	8260B	4/26/19 16:08	JLB	P9D0530
Bromomethane	0.0029 U	mg/kg dry	0.012	0.0029	1	8260B	4/26/19 16:08	JLB	P9D0530
Carbon Tetrachloride	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
Chlorobenzene	0.00091 U	mg/kg dry	0.0058	0.00091	1	8260B	4/26/19 16:08	JLB	P9D0530
Chloroethane	0.0011 U	mg/kg dry	0.012	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
Chloroform	0.00071 U	mg/kg dry	0.0058	0.00071	1	8260B	4/26/19 16:08	JLB	P9D0530
Chloromethane	0.0018 U	mg/kg dry	0.012	0.0018	1	8260B	4/26/19 16:08	JLB	P9D0530
cis-1,2-Dichloroethylene	0.00092 U	mg/kg dry	0.0058	0.00092	1	8260B	4/26/19 16:08	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00058 U	mg/kg dry	0.0058	0.00058	1	8260B	4/26/19 16:08	JLB	P9D0530
Dibromochloromethane	0.00039 U	mg/kg dry	0.0058	0.00039	1	8260B	4/26/19 16:08	JLB	P9D0530
Dichlorodifluoromethane	0.0016 U	mg/kg dry	0.012	0.0016	1	8260B	4/26/19 16:08	JLB	P9D0530
Ethylbenzene	0.00088 U	mg/kg dry	0.0058	0.00088	1	8260B	4/26/19 16:08	JLB	P9D0530
Isopropyl Ether	0.00086 U	mg/kg dry	0.0058	0.00086	1	8260B	4/26/19 16:08	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00068 U	mg/kg dry	0.0058	0.00068	1	8260B	4/26/19 16:08	JLB	P9D0530
m,p-Xylenes	0.0015 U	mg/kg dry	0.012	0.0015	1	8260B	4/26/19 16:08	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00040 U	mg/kg dry	0.023	0.00040	1	8260B	4/26/19 16:08	JLB	P9D0530
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.0043 J</b>	<b>mg/kg dry</b>	<b>0.023</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 16:08</b>	<b>JLB</b>	<b>P9D0530</b>
Methyl Isobutyl Ketone	0.00048 U	mg/kg dry	0.023	0.00048	1	8260B	4/26/19 16:08	JLB	P9D0530
Methylene Chloride	0.00094 U	mg/kg dry	0.0058	0.00094	1	8260B	4/26/19 16:08	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00082 U	mg/kg dry	0.0058	0.00082	1	8260B	4/26/19 16:08	JLB	P9D0530
Naphthalene	0.00059 U	mg/kg dry	0.012	0.00059	1	8260B	4/26/19 16:08	JLB	P9D0530
n-Butylbenzene	0.00055 U	mg/kg dry	0.0058	0.00055	1	8260B	4/26/19 16:08	JLB	P9D0530
n-Propylbenzene	0.00085 U	mg/kg dry	0.0058	0.00085	1	8260B	4/26/19 16:08	JLB	P9D0530
o-Xylene	0.00062 U	mg/kg dry	0.0058	0.00062	1	8260B	4/26/19 16:08	JLB	P9D0530
sec-Butylbenzene	0.00063 U	mg/kg dry	0.0058	0.00063	1	8260B	4/26/19 16:08	JLB	P9D0530
Styrene	0.00057 U	mg/kg dry	0.0058	0.00057	1	8260B	4/26/19 16:08	JLB	P9D0530
tert-Butylbenzene	0.00069 U	mg/kg dry	0.0058	0.00069	1	8260B	4/26/19 16:08	JLB	P9D0530
Tetrachloroethylene	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
Toluene	0.00093 U	mg/kg dry	0.0058	0.00093	1	8260B	4/26/19 16:08	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00050 U	mg/kg dry	0.0058	0.00050	1	8260B	4/26/19 16:08	JLB	P9D0530
Trichloroethylene	0.0011 U	mg/kg dry	0.0058	0.0011	1	8260B	4/26/19 16:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-2-4  
Prism Sample ID: 9040348-03  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:10  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Trichlorofluoromethane	0.0016 U	mg/kg dry	0.012	0.0016	1	8260B	4/26/19 16:08	JLB	P9D0530
Vinyl acetate	0.00063 U	mg/kg dry	0.012	0.00063	1	8260B	4/26/19 16:08	JLB	P9D0530
Vinyl chloride	0.0012 U	mg/kg dry	0.012	0.0012	1	8260B	4/26/19 16:08	JLB	P9D0530
Xylenes, total	0.0021 U	mg/kg dry	0.018	0.0021	1	8260B	4/26/19 16:08	JLB	P9D0530

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	109 %	70-130
Dibromofluoromethane	112 %	84-123
Toluene-d8	108 %	76-129

Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-8-10  
Prism Sample ID: 9040348-04  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:20  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.1	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0023 U	mg/kg dry	0.0062	0.0023	1	8081B	4/24/19 20:45	ZRC	P9D0422
4,4'-DDE	0.0026 U	mg/kg dry	0.0062	0.0026	1	8081B	4/24/19 20:45	ZRC	P9D0422
4,4'-DDT	0.0019 U	mg/kg dry	0.0062	0.0019	1	8081B	4/24/19 20:45	ZRC	P9D0422
Aldrin	0.0023 U	mg/kg dry	0.0062	0.0023	1	8081B	4/24/19 20:45	ZRC	P9D0422
alpha-BHC	0.0015 U	mg/kg dry	0.0062	0.0015	1	8081B	4/24/19 20:45	ZRC	P9D0422
cis-Chlordane	0.0023 U	mg/kg dry	0.0062	0.0023	1	8081B	4/24/19 20:45	ZRC	P9D0422
beta-BHC	0.0025 U	mg/kg dry	0.0062	0.0025	1	8081B	4/24/19 20:45	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.062	0.012	1	8081B	4/24/19 20:45	ZRC	P9D0422
delta-BHC	0.0016 U	mg/kg dry	0.0062	0.0016	1	8081B	4/24/19 20:45	ZRC	P9D0422
Dieldrin	0.0026 U	mg/kg dry	0.0062	0.0026	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endosulfan I	0.0022 U	mg/kg dry	0.0062	0.0022	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endosulfan II	0.0022 U	mg/kg dry	0.0062	0.0022	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endosulfan Sulfate	0.0023 U	mg/kg dry	0.0062	0.0023	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endrin	0.0024 U	mg/kg dry	0.0062	0.0024	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endrin Aldehyde	0.0026 U	mg/kg dry	0.0062	0.0026	1	8081B	4/24/19 20:45	ZRC	P9D0422
Endrin Ketone	0.0023 U	mg/kg dry	0.0062	0.0023	1	8081B	4/24/19 20:45	ZRC	P9D0422
gamma-BHC	0.0016 U	mg/kg dry	0.0062	0.0016	1	8081B	4/24/19 20:45	ZRC	P9D0422
trans-Chlordane	0.0021 U	mg/kg dry	0.0062	0.0021	1	8081B	4/24/19 20:45	ZRC	P9D0422
Heptachlor	0.0017 U	mg/kg dry	0.0062	0.0017	1	8081B	4/24/19 20:45	ZRC	P9D0422
Heptachlor Epoxide	0.0022 U	mg/kg dry	0.0062	0.0022	1	8081B	4/24/19 20:45	ZRC	P9D0422
Methoxychlor	0.0033 U	mg/kg dry	0.0062	0.0033	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.012 U	mg/kg dry	0.062	0.012	1	8081B	4/24/19 20:45	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
								54 %	26-204
Tetrachloro-m-xylene									
								53 %	40-162
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.064 U	mg/kg dry	0.41	0.064	1	8270D	4/24/19 14:47	JMV	P9D0401
1,2-Dichlorobenzene	0.062 U	mg/kg dry	0.41	0.062	1	8270D	4/24/19 14:47	JMV	P9D0401
1,3-Dichlorobenzene	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401
1,4-Dichlorobenzene	0.060 U	mg/kg dry	0.41	0.060	1	8270D	4/24/19 14:47	JMV	P9D0401
1-Methylnaphthalene	0.079 U	mg/kg dry	0.41	0.079	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4,5-Trichlorophenol	0.066 U	mg/kg dry	0.41	0.066	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4,6-Trichlorophenol	0.077 U	mg/kg dry	0.41	0.077	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4-Dichlorophenol	0.079 U	mg/kg dry	0.41	0.079	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4-Dimethylphenol	0.063 U	mg/kg dry	0.41	0.063	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4-Dinitrophenol	0.057 U	mg/kg dry	0.41	0.057	1	8270D	4/24/19 14:47	JMV	P9D0401
2,4-Dinitrotoluene	0.050 U	mg/kg dry	0.41	0.050	1	8270D	4/24/19 14:47	JMV	P9D0401
2,6-Dinitrotoluene	0.055 U	mg/kg dry	0.41	0.055	1	8270D	4/24/19 14:47	JMV	P9D0401
2-Chloronaphthalene	0.059 U	mg/kg dry	0.41	0.059	1	8270D	4/24/19 14:47	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-8-10  
Prism Sample ID: 9040348-04  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:20  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401
2-Methylnaphthalene	0.066 U	mg/kg dry	0.41	0.066	1	8270D	4/24/19 14:47	JMV	P9D0401
2-Methylphenol	0.053 U	mg/kg dry	0.41	0.053	1	8270D	4/24/19 14:47	JMV	P9D0401
2-Nitrophenol	0.075 U	mg/kg dry	0.41	0.075	1	8270D	4/24/19 14:47	JMV	P9D0401
3,3'-Dichlorobenzidine	0.081 U	mg/kg dry	0.41	0.081	1	8270D	4/24/19 14:47	JMV	P9D0401
3/4-Methylphenol	0.051 U	mg/kg dry	0.41	0.051	1	8270D	4/24/19 14:47	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.062 U	mg/kg dry	0.41	0.062	1	8270D	4/24/19 14:47	JMV	P9D0401
4-Bromophenyl phenyl ether	0.071 U	mg/kg dry	0.41	0.071	1	8270D	4/24/19 14:47	JMV	P9D0401
4-Chloro-3-methylphenol	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401
4-Chloroaniline	0.049 U	mg/kg dry	0.41	0.049	1	8270D	4/24/19 14:47	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.053 U	mg/kg dry	0.41	0.053	1	8270D	4/24/19 14:47	JMV	P9D0401
4-Nitrophenol	0.063 U	mg/kg dry	0.41	0.063	1	8270D	4/24/19 14:47	JMV	P9D0401
Acenaphthene	0.056 U	mg/kg dry	0.41	0.056	1	8270D	4/24/19 14:47	JMV	P9D0401
Acenaphthylene	0.059 U	mg/kg dry	0.41	0.059	1	8270D	4/24/19 14:47	JMV	P9D0401
Anthracene	0.066 U	mg/kg dry	0.41	0.066	1	8270D	4/24/19 14:47	JMV	P9D0401
Azobenzene	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzo(a)anthracene	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzo(a)pyrene	0.044 U	mg/kg dry	0.41	0.044	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzo(b)fluoranthene	0.048 U	mg/kg dry	0.41	0.048	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzo(g,h,i)perylene	0.045 U	mg/kg dry	0.41	0.045	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzo(k)fluoranthene	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzoic Acid	0.035 U	mg/kg dry	0.41	0.035	1	8270D	4/24/19 14:47	JMV	P9D0401
Benzyl alcohol	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.071 U	mg/kg dry	0.41	0.071	1	8270D	4/24/19 14:47	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.070 U	mg/kg dry	0.41	0.070	1	8270D	4/24/19 14:47	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.061 U	mg/kg dry	0.41	0.061	1	8270D	4/24/19 14:47	JMV	P9D0401
Butyl benzyl phthalate	0.059 U	mg/kg dry	0.41	0.059	1	8270D	4/24/19 14:47	JMV	P9D0401
Chrysene	0.052 U	mg/kg dry	0.41	0.052	1	8270D	4/24/19 14:47	JMV	P9D0401
Dibenzo(a,h)anthracene	0.050 U	mg/kg dry	0.41	0.050	1	8270D	4/24/19 14:47	JMV	P9D0401
Dibenzofuran	0.062 U	mg/kg dry	0.41	0.062	1	8270D	4/24/19 14:47	JMV	P9D0401
Diethyl phthalate	0.057 U	mg/kg dry	0.41	0.057	1	8270D	4/24/19 14:47	JMV	P9D0401
Dimethyl phthalate	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401
Di-n-butyl phthalate	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401
Di-n-octyl phthalate	0.051 U	mg/kg dry	0.41	0.051	1	8270D	4/24/19 14:47	JMV	P9D0401
Fluoranthene	0.052 U	mg/kg dry	0.41	0.052	1	8270D	4/24/19 14:47	JMV	P9D0401
Fluorene	0.059 U	mg/kg dry	0.41	0.059	1	8270D	4/24/19 14:47	JMV	P9D0401
Hexachlorobenzene	0.065 U	mg/kg dry	0.41	0.065	1	8270D	4/24/19 14:47	JMV	P9D0401
Hexachlorobutadiene	0.074 U	mg/kg dry	0.41	0.074	1	8270D	4/24/19 14:47	JMV	P9D0401
Hexachlorocyclopentadiene	0.073 U	mg/kg dry	0.41	0.073	1	8270D	4/24/19 14:47	JMV	P9D0401
Hexachloroethane	0.069 U	mg/kg dry	0.41	0.069	1	8270D	4/24/19 14:47	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.047 U	mg/kg dry	0.41	0.047	1	8270D	4/24/19 14:47	JMV	P9D0401
Isophorone	0.056 U	mg/kg dry	0.41	0.056	1	8270D	4/24/19 14:47	JMV	P9D0401
Naphthalene	0.066 U	mg/kg dry	0.41	0.066	1	8270D	4/24/19 14:47	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-8-10  
Prism Sample ID: 9040348-04  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:20  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID																					
Nitrobenzene	0.058 U	mg/kg dry	0.41	0.058	1	8270D	4/24/19 14:47	JMV	P9D0401																					
N-Nitroso-di-n-propylamine	0.065 U	mg/kg dry	0.41	0.065	1	8270D	4/24/19 14:47	JMV	P9D0401																					
N-Nitrosodiphenylamine	0.062 U	mg/kg dry	0.41	0.062	1	8270D	4/24/19 14:47	JMV	P9D0401																					
Pentachlorophenol	0.049 U	mg/kg dry	0.41	0.049	1	8270D	4/24/19 14:47	JMV	P9D0401																					
Phenanthrene	0.053 U	mg/kg dry	0.41	0.053	1	8270D	4/24/19 14:47	JMV	P9D0401																					
Phenol	0.061 U	mg/kg dry	0.41	0.061	1	8270D	4/24/19 14:47	JMV	P9D0401																					
Pyrene	0.054 U	mg/kg dry	0.41	0.054	1	8270D	4/24/19 14:47	JMV	P9D0401																					
Pyridine	0.072 U	mg/kg dry	0.41	0.072	1	8270D	4/24/19 14:47	JMV	P9D0401																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Surrogate</th> <th style="width: 30%;">Recovery</th> <th style="width: 40%;">Control Limits</th> </tr> <tr> <td>2,4,6-Tribromophenol</td> <td>77 %</td> <td>39-132</td> </tr> <tr> <td>2-Fluorobiphenyl</td> <td>67 %</td> <td>44-115</td> </tr> <tr> <td>2-Fluorophenol</td> <td>65 %</td> <td>35-115</td> </tr> <tr> <td>Nitrobenzene-d5</td> <td>59 %</td> <td>37-122</td> </tr> <tr> <td>Phenol-d5</td> <td>65 %</td> <td>34-121</td> </tr> <tr> <td>Terphenyl-d14</td> <td>75 %</td> <td>54-127</td> </tr> </table>										Surrogate	Recovery	Control Limits	2,4,6-Tribromophenol	77 %	39-132	2-Fluorobiphenyl	67 %	44-115	2-Fluorophenol	65 %	35-115	Nitrobenzene-d5	59 %	37-122	Phenol-d5	65 %	34-121	Terphenyl-d14	75 %	54-127
Surrogate	Recovery	Control Limits																												
2,4,6-Tribromophenol	77 %	39-132																												
2-Fluorobiphenyl	67 %	44-115																												
2-Fluorophenol	65 %	35-115																												
Nitrobenzene-d5	59 %	37-122																												
Phenol-d5	65 %	34-121																												
Terphenyl-d14	75 %	54-127																												

### Total Metals

Mercury	0.20	mg/kg dry	0.062	0.022	1	7471B	4/29/19 13:35	MMR	P9D0510
Arsenic	6.1	mg/kg dry	1.2	0.16	1	6010D	4/26/19 14:21	JAB	P9D0478
Barium	38	mg/kg dry	12	3.7	1	6010D	4/26/19 14:21	JAB	P9D0478
Cadmium	0.042 U	mg/kg dry	0.62	0.042	1	6010D	4/26/19 14:21	JAB	P9D0478
Chromium	210	mg/kg dry	12	0.95	10	6010D	4/30/19 12:30	JAB	P9D0478
Lead	16	mg/kg dry	1.2	0.21	1	6010D	4/26/19 14:21	JAB	P9D0478
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/26/19 14:21	JAB	P9D0478
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/26/19 14:21	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00083 U	mg/kg dry	0.0068	0.00083	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1,1-Trichloroethane	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00050 U	mg/kg dry	0.0068	0.00050	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1,2-Trichloroethane	0.00074 U	mg/kg dry	0.0068	0.00074	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1-Dichloroethane	0.0012 U	mg/kg dry	0.0068	0.0012	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1-Dichloroethylene	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 16:38	JLB	P9D0530
1,1-Dichloropropylene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00098 U	mg/kg dry	0.014	0.00098	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2,3-Trichloropropane	0.00078 U	mg/kg dry	0.0068	0.00078	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00065 U	mg/kg dry	0.014	0.00065	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00072 U	mg/kg dry	0.0068	0.00072	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2-Dibromoethane	0.00061 U	mg/kg dry	0.0068	0.00061	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2-Dichlorobenzene	0.00076 U	mg/kg dry	0.0068	0.00076	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2-Dichloroethane	0.00081 U	mg/kg dry	0.0068	0.00081	1	8260B	4/26/19 16:38	JLB	P9D0530
1,2-Dichloropropane	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 16:38	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00086 U	mg/kg dry	0.0068	0.00086	1	8260B	4/26/19 16:38	JLB	P9D0530
1,3-Dichlorobenzene	0.00085 U	mg/kg dry	0.0068	0.00085	1	8260B	4/26/19 16:38	JLB	P9D0530
1,3-Dichloropropane	0.00057 U	mg/kg dry	0.0068	0.00057	1	8260B	4/26/19 16:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-8-10  
Prism Sample ID: 9040348-04  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:20  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00087 U	mg/kg dry	0.0068	0.00087	1	8260B	4/26/19 16:38	JLB	P9D0530
2,2-Dichloropropane	0.00085 U	mg/kg dry	0.0068	0.00085	1	8260B	4/26/19 16:38	JLB	P9D0530
2-Chlorotoluene	0.00092 U	mg/kg dry	0.0068	0.00092	1	8260B	4/26/19 16:38	JLB	P9D0530
4-Chlorotoluene	0.00078 U	mg/kg dry	0.0068	0.00078	1	8260B	4/26/19 16:38	JLB	P9D0530
4-Isopropyltoluene	0.0017 U	mg/kg dry	0.0068	0.0017	1	8260B	4/26/19 16:38	JLB	P9D0530
<b>Acetone</b>	<b>0.010 J</b>	<b>mg/kg dry</b>	<b>0.027</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 16:38</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
Bromobenzene	0.00095 U	mg/kg dry	0.0068	0.00095	1	8260B	4/26/19 16:38	JLB	P9D0530
Bromochloromethane	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
Bromodichloromethane	0.00065 U	mg/kg dry	0.0068	0.00065	1	8260B	4/26/19 16:38	JLB	P9D0530
Bromoform	0.00053 U	mg/kg dry	0.0068	0.00053	1	8260B	4/26/19 16:38	JLB	P9D0530
Bromomethane	0.0033 U	mg/kg dry	0.014	0.0033	1	8260B	4/26/19 16:38	JLB	P9D0530
Carbon Tetrachloride	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 16:38	JLB	P9D0530
Chlorobenzene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
Chloroethane	0.0013 U	mg/kg dry	0.014	0.0013	1	8260B	4/26/19 16:38	JLB	P9D0530
Chloroform	0.00084 U	mg/kg dry	0.0068	0.00084	1	8260B	4/26/19 16:38	JLB	P9D0530
Chloromethane	0.0021 U	mg/kg dry	0.014	0.0021	1	8260B	4/26/19 16:38	JLB	P9D0530
cis-1,2-Dichloroethylene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00067 U	mg/kg dry	0.0068	0.00067	1	8260B	4/26/19 16:38	JLB	P9D0530
Dibromochloromethane	0.00046 U	mg/kg dry	0.0068	0.00046	1	8260B	4/26/19 16:38	JLB	P9D0530
Dichlorodifluoromethane	0.0019 U	mg/kg dry	0.014	0.0019	1	8260B	4/26/19 16:38	JLB	P9D0530
Ethylbenzene	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 16:38	JLB	P9D0530
Isopropyl Ether	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 16:38	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00079 U	mg/kg dry	0.0068	0.00079	1	8260B	4/26/19 16:38	JLB	P9D0530
m,p-Xylenes	0.0017 U	mg/kg dry	0.014	0.0017	1	8260B	4/26/19 16:38	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00047 U	mg/kg dry	0.027	0.00047	1	8260B	4/26/19 16:38	JLB	P9D0530
Methyl Ethyl Ketone (2-Butanone)	0.0016 U	mg/kg dry	0.027	0.0016	1	8260B	4/26/19 16:38	JLB	P9D0530
Methyl Isobutyl Ketone	0.00056 U	mg/kg dry	0.027	0.00056	1	8260B	4/26/19 16:38	JLB	P9D0530
Methylene Chloride	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00096 U	mg/kg dry	0.0068	0.00096	1	8260B	4/26/19 16:38	JLB	P9D0530
Naphthalene	0.00069 U	mg/kg dry	0.014	0.00069	1	8260B	4/26/19 16:38	JLB	P9D0530
n-Butylbenzene	0.00064 U	mg/kg dry	0.0068	0.00064	1	8260B	4/26/19 16:38	JLB	P9D0530
n-Propylbenzene	0.00099 U	mg/kg dry	0.0068	0.00099	1	8260B	4/26/19 16:38	JLB	P9D0530
o-Xylene	0.00073 U	mg/kg dry	0.0068	0.00073	1	8260B	4/26/19 16:38	JLB	P9D0530
sec-Butylbenzene	0.00074 U	mg/kg dry	0.0068	0.00074	1	8260B	4/26/19 16:38	JLB	P9D0530
Styrene	0.00066 U	mg/kg dry	0.0068	0.00066	1	8260B	4/26/19 16:38	JLB	P9D0530
tert-Butylbenzene	0.00081 U	mg/kg dry	0.0068	0.00081	1	8260B	4/26/19 16:38	JLB	P9D0530
Tetrachloroethylene	0.0012 U	mg/kg dry	0.0068	0.0012	1	8260B	4/26/19 16:38	JLB	P9D0530
Toluene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 16:38	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 16:38	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00058 U	mg/kg dry	0.0068	0.00058	1	8260B	4/26/19 16:38	JLB	P9D0530
Trichloroethylene	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 16:38	JLB	P9D0530
Trichlorofluoromethane	0.0018 U	mg/kg dry	0.014	0.0018	1	8260B	4/26/19 16:38	JLB	P9D0530
Vinyl acetate	0.00074 U	mg/kg dry	0.014	0.00074	1	8260B	4/26/19 16:38	JLB	P9D0530

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Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB2-8-10  
Prism Sample ID: 9040348-04  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:20  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl chloride	0.0014 U	mg/kg dry	0.014	0.0014	1	8260B	4/26/19 16:38	JLB	P9D0530
Xylenes, total	0.0025 U	mg/kg dry	0.020	0.0025	1	8260B	4/26/19 16:38	JLB	P9D0530
Surrogate							Recovery	Control Limits	
							106 %	70-130	
							109 %	84-123	
							106 %	76-129	



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Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB3-2-4  
Prism Sample ID: 9040348-05  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:30  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	76.5	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0025 U	mg/kg dry	0.0065	0.0025	1	8081B	4/24/19 20:57	ZRC	P9D0422
4,4'-DDE	0.0027 U	mg/kg dry	0.0065	0.0027	1	8081B	4/24/19 20:57	ZRC	P9D0422
4,4'-DDT	0.0020 U	mg/kg dry	0.0065	0.0020	1	8081B	4/24/19 20:57	ZRC	P9D0422
Aldrin	0.0024 U	mg/kg dry	0.0065	0.0024	1	8081B	4/24/19 20:57	ZRC	P9D0422
alpha-BHC	0.0015 U	mg/kg dry	0.0065	0.0015	1	8081B	4/24/19 20:57	ZRC	P9D0422
cis-Chlordane	0.0024 U	mg/kg dry	0.0065	0.0024	1	8081B	4/24/19 20:57	ZRC	P9D0422
beta-BHC	0.0026 U	mg/kg dry	0.0065	0.0026	1	8081B	4/24/19 20:57	ZRC	P9D0422
Chlordane	0.013 U	mg/kg dry	0.065	0.013	1	8081B	4/24/19 20:57	ZRC	P9D0422
delta-BHC	0.0016 U	mg/kg dry	0.0065	0.0016	1	8081B	4/24/19 20:57	ZRC	P9D0422
Dieldrin	0.0027 U	mg/kg dry	0.0065	0.0027	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endosulfan I	0.0023 U	mg/kg dry	0.0065	0.0023	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endosulfan II	0.0023 U	mg/kg dry	0.0065	0.0023	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endosulfan Sulfate	0.0024 U	mg/kg dry	0.0065	0.0024	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endrin	0.0025 U	mg/kg dry	0.0065	0.0025	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endrin Aldehyde	0.0028 U	mg/kg dry	0.0065	0.0028	1	8081B	4/24/19 20:57	ZRC	P9D0422
Endrin Ketone	0.0024 U	mg/kg dry	0.0065	0.0024	1	8081B	4/24/19 20:57	ZRC	P9D0422
gamma-BHC	0.0016 U	mg/kg dry	0.0065	0.0016	1	8081B	4/24/19 20:57	ZRC	P9D0422
trans-Chlordane	0.0022 U	mg/kg dry	0.0065	0.0022	1	8081B	4/24/19 20:57	ZRC	P9D0422
Heptachlor	0.0018 U	mg/kg dry	0.0065	0.0018	1	8081B	4/24/19 20:57	ZRC	P9D0422
Heptachlor Epoxide	0.0023 U	mg/kg dry	0.0065	0.0023	1	8081B	4/24/19 20:57	ZRC	P9D0422
Methoxychlor	0.0034 U	mg/kg dry	0.0065	0.0034	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.013 U	mg/kg dry	0.065	0.013	1	8081B	4/24/19 20:57	ZRC	P9D0422
<b>Surrogate</b>									
Decachlorobiphenyl									
67 %									
Tetrachloro-m-xylene									
64 %									
Control Limits									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.067 U	mg/kg dry	0.43	0.067	1	8270D	4/24/19 15:09	JMV	P9D0401
1,2-Dichlorobenzene	0.065 U	mg/kg dry	0.43	0.065	1	8270D	4/24/19 15:09	JMV	P9D0401
1,3-Dichlorobenzene	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401
1,4-Dichlorobenzene	0.063 U	mg/kg dry	0.43	0.063	1	8270D	4/24/19 15:09	JMV	P9D0401
1-Methylnaphthalene	0.083 U	mg/kg dry	0.43	0.083	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4,5-Trichlorophenol	0.070 U	mg/kg dry	0.43	0.070	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4,6-Trichlorophenol	0.081 U	mg/kg dry	0.43	0.081	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4-Dichlorophenol	0.083 U	mg/kg dry	0.43	0.083	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4-Dimethylphenol	0.066 U	mg/kg dry	0.43	0.066	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4-Dinitrophenol	0.060 U	mg/kg dry	0.43	0.060	1	8270D	4/24/19 15:09	JMV	P9D0401
2,4-Dinitrotoluene	0.052 U	mg/kg dry	0.43	0.052	1	8270D	4/24/19 15:09	JMV	P9D0401
2,6-Dinitrotoluene	0.057 U	mg/kg dry	0.43	0.057	1	8270D	4/24/19 15:09	JMV	P9D0401
2-Chloronaphthalene	0.062 U	mg/kg dry	0.43	0.062	1	8270D	4/24/19 15:09	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB3-2-4  
Prism Sample ID: 9040348-05  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:30  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401
2-Methylnaphthalene	0.069 U	mg/kg dry	0.43	0.069	1	8270D	4/24/19 15:09	JMV	P9D0401
2-Methylphenol	0.055 U	mg/kg dry	0.43	0.055	1	8270D	4/24/19 15:09	JMV	P9D0401
2-Nitrophenol	0.078 U	mg/kg dry	0.43	0.078	1	8270D	4/24/19 15:09	JMV	P9D0401
3,3'-Dichlorobenzidine	0.085 U	mg/kg dry	0.43	0.085	1	8270D	4/24/19 15:09	JMV	P9D0401
3/4-Methylphenol	0.053 U	mg/kg dry	0.43	0.053	1	8270D	4/24/19 15:09	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.065 U	mg/kg dry	0.43	0.065	1	8270D	4/24/19 15:09	JMV	P9D0401
4-Bromophenyl phenyl ether	0.074 U	mg/kg dry	0.43	0.074	1	8270D	4/24/19 15:09	JMV	P9D0401
4-Chloro-3-methylphenol	0.060 U	mg/kg dry	0.43	0.060	1	8270D	4/24/19 15:09	JMV	P9D0401
4-Chloroaniline	0.052 U	mg/kg dry	0.43	0.052	1	8270D	4/24/19 15:09	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.056 U	mg/kg dry	0.43	0.056	1	8270D	4/24/19 15:09	JMV	P9D0401
4-Nitrophenol	0.066 U	mg/kg dry	0.43	0.066	1	8270D	4/24/19 15:09	JMV	P9D0401
Acenaphthene	0.059 U	mg/kg dry	0.43	0.059	1	8270D	4/24/19 15:09	JMV	P9D0401
Acenaphthylene	0.062 U	mg/kg dry	0.43	0.062	1	8270D	4/24/19 15:09	JMV	P9D0401
Anthracene	0.069 U	mg/kg dry	0.43	0.069	1	8270D	4/24/19 15:09	JMV	P9D0401
Azobenzene	0.057 U	mg/kg dry	0.43	0.057	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzo(a)anthracene	0.056 U	mg/kg dry	0.43	0.056	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzo(a)pyrene	0.047 U	mg/kg dry	0.43	0.047	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzo(b)fluoranthene	0.050 U	mg/kg dry	0.43	0.050	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzo(g,h,i)perylene	0.047 U	mg/kg dry	0.43	0.047	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzo(k)fluoranthene	0.056 U	mg/kg dry	0.43	0.056	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzoic Acid	0.036 U	mg/kg dry	0.43	0.036	1	8270D	4/24/19 15:09	JMV	P9D0401
Benzyl alcohol	0.057 U	mg/kg dry	0.43	0.057	1	8270D	4/24/19 15:09	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.075 U	mg/kg dry	0.43	0.075	1	8270D	4/24/19 15:09	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.074 U	mg/kg dry	0.43	0.074	1	8270D	4/24/19 15:09	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.064 U	mg/kg dry	0.43	0.064	1	8270D	4/24/19 15:09	JMV	P9D0401
Butyl benzyl phthalate	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401
Chrysene	0.054 U	mg/kg dry	0.43	0.054	1	8270D	4/24/19 15:09	JMV	P9D0401
Dibenzo(a,h)anthracene	0.052 U	mg/kg dry	0.43	0.052	1	8270D	4/24/19 15:09	JMV	P9D0401
Dibenzofuran	0.065 U	mg/kg dry	0.43	0.065	1	8270D	4/24/19 15:09	JMV	P9D0401
Diethyl phthalate	0.059 U	mg/kg dry	0.43	0.059	1	8270D	4/24/19 15:09	JMV	P9D0401
Dimethyl phthalate	0.057 U	mg/kg dry	0.43	0.057	1	8270D	4/24/19 15:09	JMV	P9D0401
Di-n-butyl phthalate	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401
Di-n-octyl phthalate	0.053 U	mg/kg dry	0.43	0.053	1	8270D	4/24/19 15:09	JMV	P9D0401
Fluoranthene	0.055 U	mg/kg dry	0.43	0.055	1	8270D	4/24/19 15:09	JMV	P9D0401
Fluorene	0.062 U	mg/kg dry	0.43	0.062	1	8270D	4/24/19 15:09	JMV	P9D0401
Hexachlorobenzene	0.068 U	mg/kg dry	0.43	0.068	1	8270D	4/24/19 15:09	JMV	P9D0401
Hexachlorobutadiene	0.077 U	mg/kg dry	0.43	0.077	1	8270D	4/24/19 15:09	JMV	P9D0401
Hexachlorocyclopentadiene	0.077 U	mg/kg dry	0.43	0.077	1	8270D	4/24/19 15:09	JMV	P9D0401
Hexachloroethane	0.072 U	mg/kg dry	0.43	0.072	1	8270D	4/24/19 15:09	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.049 U	mg/kg dry	0.43	0.049	1	8270D	4/24/19 15:09	JMV	P9D0401
Isophorone	0.058 U	mg/kg dry	0.43	0.058	1	8270D	4/24/19 15:09	JMV	P9D0401
Naphthalene	0.069 U	mg/kg dry	0.43	0.069	1	8270D	4/24/19 15:09	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB3-2-4  
Prism Sample ID: 9040348-05  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:30  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID																					
Nitrobenzene	0.061 U	mg/kg dry	0.43	0.061	1	8270D	4/24/19 15:09	JMV	P9D0401																					
N-Nitroso-di-n-propylamine	0.068 U	mg/kg dry	0.43	0.068	1	8270D	4/24/19 15:09	JMV	P9D0401																					
N-Nitrosodiphenylamine	0.065 U	mg/kg dry	0.43	0.065	1	8270D	4/24/19 15:09	JMV	P9D0401																					
Pentachlorophenol	0.051 U	mg/kg dry	0.43	0.051	1	8270D	4/24/19 15:09	JMV	P9D0401																					
Phenanthrene	0.056 U	mg/kg dry	0.43	0.056	1	8270D	4/24/19 15:09	JMV	P9D0401																					
Phenol	0.064 U	mg/kg dry	0.43	0.064	1	8270D	4/24/19 15:09	JMV	P9D0401																					
Pyrene	0.057 U	mg/kg dry	0.43	0.057	1	8270D	4/24/19 15:09	JMV	P9D0401																					
Pyridine	0.075 U	mg/kg dry	0.43	0.075	1	8270D	4/24/19 15:09	JMV	P9D0401																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Surrogate</th> <th style="width: 30%;">Recovery</th> <th style="width: 40%;">Control Limits</th> </tr> <tr> <td>2,4,6-Tribromophenol</td> <td>99 %</td> <td>39-132</td> </tr> <tr> <td>2-Fluorobiphenyl</td> <td>91 %</td> <td>44-115</td> </tr> <tr> <td>2-Fluorophenol</td> <td>92 %</td> <td>35-115</td> </tr> <tr> <td>Nitrobenzene-d5</td> <td>83 %</td> <td>37-122</td> </tr> <tr> <td>Phenol-d5</td> <td>90 %</td> <td>34-121</td> </tr> <tr> <td>Terphenyl-d14</td> <td>94 %</td> <td>54-127</td> </tr> </table>										Surrogate	Recovery	Control Limits	2,4,6-Tribromophenol	99 %	39-132	2-Fluorobiphenyl	91 %	44-115	2-Fluorophenol	92 %	35-115	Nitrobenzene-d5	83 %	37-122	Phenol-d5	90 %	34-121	Terphenyl-d14	94 %	54-127
Surrogate	Recovery	Control Limits																												
2,4,6-Tribromophenol	99 %	39-132																												
2-Fluorobiphenyl	91 %	44-115																												
2-Fluorophenol	92 %	35-115																												
Nitrobenzene-d5	83 %	37-122																												
Phenol-d5	90 %	34-121																												
Terphenyl-d14	94 %	54-127																												

### Total Metals

Mercury	0.11	mg/kg dry	0.065	0.023	1	7471B	4/29/19 13:40	MMR	P9D0510
Arsenic	7.2	mg/kg dry	1.3	0.17	1	6010D	4/26/19 14:28	JAB	P9D0478
Barium	56	mg/kg dry	13	3.9	1	6010D	4/26/19 14:28	JAB	P9D0478
Cadmium	0.044 U	mg/kg dry	0.65	0.044	1	6010D	4/26/19 14:28	JAB	P9D0478
Chromium	220	mg/kg dry	13	0.99	10	6010D	4/30/19 12:22	JAB	P9D0478
Lead	20	mg/kg dry	1.3	0.22	1	6010D	4/26/19 14:28	JAB	P9D0478
Selenium	0.36 U	mg/kg dry	1.3	0.36	1	6010D	4/26/19 14:28	JAB	P9D0478
Silver	0.040 U	mg/kg dry	0.65	0.040	1	6010D	4/26/19 14:28	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00081 U	mg/kg dry	0.0067	0.00081	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1,1-Trichloroethane	0.00098 U	mg/kg dry	0.0067	0.00098	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00048 U	mg/kg dry	0.0067	0.00048	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1,2-Trichloroethane	0.00072 U	mg/kg dry	0.0067	0.00072	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1-Dichloroethane	0.0012 U	mg/kg dry	0.0067	0.0012	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1-Dichloroethylene	0.0012 U	mg/kg dry	0.0067	0.0012	1	8260B	4/26/19 17:08	JLB	P9D0530
1,1-Dichloropropylene	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00095 U	mg/kg dry	0.013	0.00095	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2,3-Trichloropropane	0.00076 U	mg/kg dry	0.0067	0.00076	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00063 U	mg/kg dry	0.013	0.00063	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00071 U	mg/kg dry	0.0067	0.00071	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2-Dibromoethane	0.00060 U	mg/kg dry	0.0067	0.00060	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2-Dichlorobenzene	0.00074 U	mg/kg dry	0.0067	0.00074	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2-Dichloroethane	0.00079 U	mg/kg dry	0.0067	0.00079	1	8260B	4/26/19 17:08	JLB	P9D0530
1,2-Dichloropropane	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00084 U	mg/kg dry	0.0067	0.00084	1	8260B	4/26/19 17:08	JLB	P9D0530
1,3-Dichlorobenzene	0.00083 U	mg/kg dry	0.0067	0.00083	1	8260B	4/26/19 17:08	JLB	P9D0530
1,3-Dichloropropane	0.00056 U	mg/kg dry	0.0067	0.00056	1	8260B	4/26/19 17:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB3-2-4  
Prism Sample ID: 9040348-05  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:30  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00084 U	mg/kg dry	0.0067	0.00084	1	8260B	4/26/19 17:08	JLB	P9D0530
2,2-Dichloropropane	0.00083 U	mg/kg dry	0.0067	0.00083	1	8260B	4/26/19 17:08	JLB	P9D0530
2-Chlorotoluene	0.00089 U	mg/kg dry	0.0067	0.00089	1	8260B	4/26/19 17:08	JLB	P9D0530
4-Chlorotoluene	0.00076 U	mg/kg dry	0.0067	0.00076	1	8260B	4/26/19 17:08	JLB	P9D0530
4-Isopropyltoluene	0.0017 U	mg/kg dry	0.0067	0.0017	1	8260B	4/26/19 17:08	JLB	P9D0530
<b>Acetone</b>	<b>0.056</b>	<b>mg/kg dry</b>	<b>0.027</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 17:08</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
Bromobenzene	0.00092 U	mg/kg dry	0.0067	0.00092	1	8260B	4/26/19 17:08	JLB	P9D0530
Bromochloromethane	0.0011 U	mg/kg dry	0.0067	0.0011	1	8260B	4/26/19 17:08	JLB	P9D0530
Bromodichloromethane	0.00063 U	mg/kg dry	0.0067	0.00063	1	8260B	4/26/19 17:08	JLB	P9D0530
Bromoform	0.00052 U	mg/kg dry	0.0067	0.00052	1	8260B	4/26/19 17:08	JLB	P9D0530
Bromomethane	0.0033 U	mg/kg dry	0.013	0.0033	1	8260B	4/26/19 17:08	JLB	P9D0530
Carbon Tetrachloride	0.0013 U	mg/kg dry	0.0067	0.0013	1	8260B	4/26/19 17:08	JLB	P9D0530
Chlorobenzene	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
Chloroethane	0.0013 U	mg/kg dry	0.013	0.0013	1	8260B	4/26/19 17:08	JLB	P9D0530
Chloroform	0.00081 U	mg/kg dry	0.0067	0.00081	1	8260B	4/26/19 17:08	JLB	P9D0530
Chloromethane	0.0020 U	mg/kg dry	0.013	0.0020	1	8260B	4/26/19 17:08	JLB	P9D0530
cis-1,2-Dichloroethylene	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00066 U	mg/kg dry	0.0067	0.00066	1	8260B	4/26/19 17:08	JLB	P9D0530
Dibromochloromethane	0.00045 U	mg/kg dry	0.0067	0.00045	1	8260B	4/26/19 17:08	JLB	P9D0530
Dichlorodifluoromethane	0.0019 U	mg/kg dry	0.013	0.0019	1	8260B	4/26/19 17:08	JLB	P9D0530
Ethylbenzene	0.0010 U	mg/kg dry	0.0067	0.0010	1	8260B	4/26/19 17:08	JLB	P9D0530
Isopropyl Ether	0.00098 U	mg/kg dry	0.0067	0.00098	1	8260B	4/26/19 17:08	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00077 U	mg/kg dry	0.0067	0.00077	1	8260B	4/26/19 17:08	JLB	P9D0530
m,p-Xylenes	0.0017 U	mg/kg dry	0.013	0.0017	1	8260B	4/26/19 17:08	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00046 U	mg/kg dry	0.027	0.00046	1	8260B	4/26/19 17:08	JLB	P9D0530
Methyl Ethyl Ketone (2-Butanone)	0.0016 U	mg/kg dry	0.027	0.0016	1	8260B	4/26/19 17:08	JLB	P9D0530
Methyl Isobutyl Ketone	0.00054 U	mg/kg dry	0.027	0.00054	1	8260B	4/26/19 17:08	JLB	P9D0530
Methylene Chloride	0.0011 U	mg/kg dry	0.0067	0.0011	1	8260B	4/26/19 17:08	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00093 U	mg/kg dry	0.0067	0.00093	1	8260B	4/26/19 17:08	JLB	P9D0530
Naphthalene	0.00067 U	mg/kg dry	0.013	0.00067	1	8260B	4/26/19 17:08	JLB	P9D0530
n-Butylbenzene	0.00062 U	mg/kg dry	0.0067	0.00062	1	8260B	4/26/19 17:08	JLB	P9D0530
n-Propylbenzene	0.00096 U	mg/kg dry	0.0067	0.00096	1	8260B	4/26/19 17:08	JLB	P9D0530
o-Xylene	0.00071 U	mg/kg dry	0.0067	0.00071	1	8260B	4/26/19 17:08	JLB	P9D0530
sec-Butylbenzene	0.00072 U	mg/kg dry	0.0067	0.00072	1	8260B	4/26/19 17:08	JLB	P9D0530
Styrene	0.00065 U	mg/kg dry	0.0067	0.00065	1	8260B	4/26/19 17:08	JLB	P9D0530
tert-Butylbenzene	0.00079 U	mg/kg dry	0.0067	0.00079	1	8260B	4/26/19 17:08	JLB	P9D0530
Tetrachloroethylene	0.0012 U	mg/kg dry	0.0067	0.0012	1	8260B	4/26/19 17:08	JLB	P9D0530
Toluene	0.0011 U	mg/kg dry	0.0067	0.0011	1	8260B	4/26/19 17:08	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0013 U	mg/kg dry	0.0067	0.0013	1	8260B	4/26/19 17:08	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00057 U	mg/kg dry	0.0067	0.00057	1	8260B	4/26/19 17:08	JLB	P9D0530
Trichloroethylene	0.0013 U	mg/kg dry	0.0067	0.0013	1	8260B	4/26/19 17:08	JLB	P9D0530
Trichlorofluoromethane	0.0018 U	mg/kg dry	0.013	0.0018	1	8260B	4/26/19 17:08	JLB	P9D0530
Vinyl acetate	0.00072 U	mg/kg dry	0.013	0.00072	1	8260B	4/26/19 17:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB3-2-4  
Prism Sample ID: 9040348-05  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:30  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl chloride	0.0013 U	mg/kg dry	0.013	0.0013	1	8260B	4/26/19 17:08	JLB	P9D0530
Xylenes, total	0.0024 U	mg/kg dry	0.020	0.0024	1	8260B	4/26/19 17:08	JLB	P9D0530
Surrogate							Recovery	Control Limits	
							4-Bromofluorobenzene	107 %	70-130
							Dibromofluoromethane	110 %	84-123
							Toluene-d8	107 %	76-129

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-2-4  
Prism Sample ID: 9040348-06  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:45  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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**General Chemistry Parameters**

% Solids	82.8	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
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**Organochlorine Pesticides by GC/ECD**

4,4'-DDD	0.0023 U	mg/kg dry	0.0060	0.0023	1	8081B	4/24/19 21:10	ZRC	P9D0422
4,4'-DDE	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:10	ZRC	P9D0422
4,4'-DDT	0.0018 U	mg/kg dry	0.0060	0.0018	1	8081B	4/24/19 21:10	ZRC	P9D0422
Aldrin	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
alpha-BHC	0.0014 U	mg/kg dry	0.0060	0.0014	1	8081B	4/24/19 21:10	ZRC	P9D0422
cis-Chlordane	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
beta-BHC	0.0024 U	mg/kg dry	0.0060	0.0024	1	8081B	4/24/19 21:10	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.060	0.012	1	8081B	4/24/19 21:10	ZRC	P9D0422
delta-BHC	0.0015 U	mg/kg dry	0.0060	0.0015	1	8081B	4/24/19 21:10	ZRC	P9D0422
Dieldrin	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endosulfan I	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endosulfan II	0.0021 U	mg/kg dry	0.0060	0.0021	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endosulfan Sulfate	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endrin	0.0023 U	mg/kg dry	0.0060	0.0023	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endrin Aldehyde	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:10	ZRC	P9D0422
Endrin Ketone	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
gamma-BHC	0.0015 U	mg/kg dry	0.0060	0.0015	1	8081B	4/24/19 21:10	ZRC	P9D0422
trans-Chlordane	0.0020 U	mg/kg dry	0.0060	0.0020	1	8081B	4/24/19 21:10	ZRC	P9D0422
Heptachlor	0.0016 U	mg/kg dry	0.0060	0.0016	1	8081B	4/24/19 21:10	ZRC	P9D0422
Heptachlor Epoxide	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:10	ZRC	P9D0422
Methoxychlor	0.0032 U	mg/kg dry	0.0060	0.0032	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.012 U	mg/kg dry	0.060	0.012	1	8081B	4/24/19 21:10	ZRC	P9D0422

Surrogate	Recovery	Control Limits
Decachlorobiphenyl	71 %	26-204
Tetrachloro-m-xylene	68 %	40-162

**Semivolatile Organic Compounds by GC/MS**

1,2,4-Trichlorobenzene	0.062 U	mg/kg dry	0.40	0.062	1	8270D	4/24/19 15:32	JMV	P9D0401
1,2-Dichlorobenzene	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 15:32	JMV	P9D0401
1,3-Dichlorobenzene	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 15:32	JMV	P9D0401
1,4-Dichlorobenzene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 15:32	JMV	P9D0401
1-Methylnaphthalene	0.077 U	mg/kg dry	0.40	0.077	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4,5-Trichlorophenol	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4,6-Trichlorophenol	0.075 U	mg/kg dry	0.40	0.075	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4-Dichlorophenol	0.077 U	mg/kg dry	0.40	0.077	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4-Dimethylphenol	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4-Dinitrophenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 15:32	JMV	P9D0401
2,4-Dinitrotoluene	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 15:32	JMV	P9D0401
2,6-Dinitrotoluene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 15:32	JMV	P9D0401
2-Chloronaphthalene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 15:32	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-2-4  
Prism Sample ID: 9040348-06  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:45  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 15:32	JMV	P9D0401
2-Methylnaphthalene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 15:32	JMV	P9D0401
2-Methylphenol	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 15:32	JMV	P9D0401
2-Nitrophenol	0.072 U	mg/kg dry	0.40	0.072	1	8270D	4/24/19 15:32	JMV	P9D0401
3,3'-Dichlorobenzidine	0.079 U	mg/kg dry	0.40	0.079	1	8270D	4/24/19 15:32	JMV	P9D0401
3/4-Methylphenol	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 15:32	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 15:32	JMV	P9D0401
4-Bromophenyl phenyl ether	0.068 U	mg/kg dry	0.40	0.068	1	8270D	4/24/19 15:32	JMV	P9D0401
4-Chloro-3-methylphenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 15:32	JMV	P9D0401
4-Chloroaniline	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 15:32	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 15:32	JMV	P9D0401
4-Nitrophenol	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 15:32	JMV	P9D0401
Acenaphthene	0.054 U	mg/kg dry	0.40	0.054	1	8270D	4/24/19 15:32	JMV	P9D0401
Acenaphthylene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 15:32	JMV	P9D0401
Anthracene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 15:32	JMV	P9D0401
Azobenzene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzo(a)anthracene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzo(a)pyrene	0.043 U	mg/kg dry	0.40	0.043	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzo(b)fluoranthene	0.046 U	mg/kg dry	0.40	0.046	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzo(g,h,i)perylene	0.044 U	mg/kg dry	0.40	0.044	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzo(k)fluoranthene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzoic Acid	0.033 U	mg/kg dry	0.40	0.033	1	8270D	4/24/19 15:32	JMV	P9D0401
Benzyl alcohol	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 15:32	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 15:32	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 15:32	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.068 U	mg/kg dry	0.40	0.068	1	8270D	4/24/19 15:32	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 15:32	JMV	P9D0401
Butyl benzyl phthalate	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 15:32	JMV	P9D0401
Chrysene	0.050 U	mg/kg dry	0.40	0.050	1	8270D	4/24/19 15:32	JMV	P9D0401
Dibenzo(a,h)anthracene	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 15:32	JMV	P9D0401
Dibenzofuran	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 15:32	JMV	P9D0401
Diethyl phthalate	0.055 U	mg/kg dry	0.40	0.055	1	8270D	4/24/19 15:32	JMV	P9D0401
Dimethyl phthalate	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 15:32	JMV	P9D0401
Di-n-butyl phthalate	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 15:32	JMV	P9D0401
Di-n-octyl phthalate	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 15:32	JMV	P9D0401
Fluoranthene	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 15:32	JMV	P9D0401
Fluorene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 15:32	JMV	P9D0401
Hexachlorobenzene	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 15:32	JMV	P9D0401
Hexachlorobutadiene	0.071 U	mg/kg dry	0.40	0.071	1	8270D	4/24/19 15:32	JMV	P9D0401
Hexachlorocyclopentadiene	0.071 U	mg/kg dry	0.40	0.071	1	8270D	4/24/19 15:32	JMV	P9D0401
Hexachloroethane	0.067 U	mg/kg dry	0.40	0.067	1	8270D	4/24/19 15:32	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.046 U	mg/kg dry	0.40	0.046	1	8270D	4/24/19 15:32	JMV	P9D0401
Isophorone	0.054 U	mg/kg dry	0.40	0.054	1	8270D	4/24/19 15:32	JMV	P9D0401
Naphthalene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 15:32	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-2-4  
Prism Sample ID: 9040348-06  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:45  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Nitrobenzene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 15:32	JMV	P9D0401
N-Nitroso-di-n-propylamine	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 15:32	JMV	P9D0401
N-Nitrosodiphenylamine	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 15:32	JMV	P9D0401
Pentachlorophenol	0.047 U	mg/kg dry	0.40	0.047	1	8270D	4/24/19 15:32	JMV	P9D0401
Phenanthrene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 15:32	JMV	P9D0401
Phenol	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 15:32	JMV	P9D0401
Pyrene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 15:32	JMV	P9D0401
Pyridine	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 15:32	JMV	P9D0401
						Surrogate	Recovery		Control Limits
						2,4,6-Tribromophenol	89 %		39-132
						2-Fluorobiphenyl	77 %		44-115
						2-Fluorophenol	73 %		35-115
						Nitrobenzene-d5	65 %		37-122
						Phenol-d5	73 %		34-121
						Terphenyl-d14	87 %		54-127

### Total Metals

Mercury	0.021 J	mg/kg dry	0.060	0.021	1	7471B	4/29/19 13:45	MMR	P9D0510
Arsenic	3.1	mg/kg dry	1.2	0.16	1	6010D	4/26/19 14:36	JAB	P9D0478
Barium	48	mg/kg dry	12	3.6	1	6010D	4/26/19 14:36	JAB	P9D0478
Cadmium	0.041 U	mg/kg dry	0.60	0.041	1	6010D	4/26/19 14:36	JAB	P9D0478
Chromium	46	mg/kg dry	1.2	0.092	1	6010D	4/26/19 14:36	JAB	P9D0478
Lead	11	mg/kg dry	1.2	0.20	1	6010D	4/26/19 14:36	JAB	P9D0478
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/26/19 14:36	JAB	P9D0478
Silver	0.037 U	mg/kg dry	0.60	0.037	1	6010D	4/26/19 14:36	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00064 U	mg/kg dry	0.0053	0.00064	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1,1-Trichloroethane	0.00077 U	mg/kg dry	0.0053	0.00077	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00038 U	mg/kg dry	0.0053	0.00038	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1,2-Trichloroethane	0.00057 U	mg/kg dry	0.0053	0.00057	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1-Dichloroethane	0.00095 U	mg/kg dry	0.0053	0.00095	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1-Dichloroethylene	0.00096 U	mg/kg dry	0.0053	0.00096	1	8260B	4/26/19 17:38	JLB	P9D0530
1,1-Dichloropropylene	0.00081 U	mg/kg dry	0.0053	0.00081	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00075 U	mg/kg dry	0.011	0.00075	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2,3-Trichloropropane	0.00060 U	mg/kg dry	0.0053	0.00060	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00050 U	mg/kg dry	0.011	0.00050	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00056 U	mg/kg dry	0.0053	0.00056	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2-Dibromoethane	0.00047 U	mg/kg dry	0.0053	0.00047	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2-Dichlorobenzene	0.00059 U	mg/kg dry	0.0053	0.00059	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2-Dichloroethane	0.00063 U	mg/kg dry	0.0053	0.00063	1	8260B	4/26/19 17:38	JLB	P9D0530
1,2-Dichloropropane	0.00079 U	mg/kg dry	0.0053	0.00079	1	8260B	4/26/19 17:38	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00066 U	mg/kg dry	0.0053	0.00066	1	8260B	4/26/19 17:38	JLB	P9D0530
1,3-Dichlorobenzene	0.00065 U	mg/kg dry	0.0053	0.00065	1	8260B	4/26/19 17:38	JLB	P9D0530
1,3-Dichloropropane	0.00044 U	mg/kg dry	0.0053	0.00044	1	8260B	4/26/19 17:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-2-4  
Prism Sample ID: 9040348-06  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:45  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00067 U	mg/kg dry	0.0053	0.00067	1	8260B	4/26/19 17:38	JLB	P9D0530
2,2-Dichloropropane	0.00066 U	mg/kg dry	0.0053	0.00066	1	8260B	4/26/19 17:38	JLB	P9D0530
2-Chlorotoluene	0.00070 U	mg/kg dry	0.0053	0.00070	1	8260B	4/26/19 17:38	JLB	P9D0530
4-Chlorotoluene	0.00060 U	mg/kg dry	0.0053	0.00060	1	8260B	4/26/19 17:38	JLB	P9D0530
4-Isopropyltoluene	0.0013 U	mg/kg dry	0.0053	0.0013	1	8260B	4/26/19 17:38	JLB	P9D0530
<b>Acetone</b>	<b>0.079</b>	<b>mg/kg dry</b>	<b>0.021</b>	<b>0.0013</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 17:38</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.00082 U	mg/kg dry	0.0053	0.00082	1	8260B	4/26/19 17:38	JLB	P9D0530
Bromobenzene	0.00073 U	mg/kg dry	0.0053	0.00073	1	8260B	4/26/19 17:38	JLB	P9D0530
Bromochloromethane	0.00086 U	mg/kg dry	0.0053	0.00086	1	8260B	4/26/19 17:38	JLB	P9D0530
Bromodichloromethane	0.00050 U	mg/kg dry	0.0053	0.00050	1	8260B	4/26/19 17:38	JLB	P9D0530
Bromoform	0.00041 U	mg/kg dry	0.0053	0.00041	1	8260B	4/26/19 17:38	JLB	P9D0530
Bromomethane	0.0026 U	mg/kg dry	0.011	0.0026	1	8260B	4/26/19 17:38	JLB	P9D0530
Carbon Tetrachloride	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 17:38	JLB	P9D0530
Chlorobenzene	0.00082 U	mg/kg dry	0.0053	0.00082	1	8260B	4/26/19 17:38	JLB	P9D0530
Chloroethane	0.0010 U	mg/kg dry	0.011	0.0010	1	8260B	4/26/19 17:38	JLB	P9D0530
Chloroform	0.00064 U	mg/kg dry	0.0053	0.00064	1	8260B	4/26/19 17:38	JLB	P9D0530
Chloromethane	0.0016 U	mg/kg dry	0.011	0.0016	1	8260B	4/26/19 17:38	JLB	P9D0530
cis-1,2-Dichloroethylene	0.00083 U	mg/kg dry	0.0053	0.00083	1	8260B	4/26/19 17:38	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00052 U	mg/kg dry	0.0053	0.00052	1	8260B	4/26/19 17:38	JLB	P9D0530
Dibromochloromethane	0.00035 U	mg/kg dry	0.0053	0.00035	1	8260B	4/26/19 17:38	JLB	P9D0530
Dichlorodifluoromethane	0.0015 U	mg/kg dry	0.011	0.0015	1	8260B	4/26/19 17:38	JLB	P9D0530
Ethylbenzene	0.00079 U	mg/kg dry	0.0053	0.00079	1	8260B	4/26/19 17:38	JLB	P9D0530
Isopropyl Ether	0.00077 U	mg/kg dry	0.0053	0.00077	1	8260B	4/26/19 17:38	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00061 U	mg/kg dry	0.0053	0.00061	1	8260B	4/26/19 17:38	JLB	P9D0530
m,p-Xylenes	0.0013 U	mg/kg dry	0.011	0.0013	1	8260B	4/26/19 17:38	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00036 U	mg/kg dry	0.021	0.00036	1	8260B	4/26/19 17:38	JLB	P9D0530
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.0037 J</b>	<b>mg/kg dry</b>	<b>0.021</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 17:38</b>	<b>JLB</b>	<b>P9D0530</b>
Methyl Isobutyl Ketone	0.00043 U	mg/kg dry	0.021	0.00043	1	8260B	4/26/19 17:38	JLB	P9D0530
Methylene Chloride	0.00085 U	mg/kg dry	0.0053	0.00085	1	8260B	4/26/19 17:38	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00074 U	mg/kg dry	0.0053	0.00074	1	8260B	4/26/19 17:38	JLB	P9D0530
Naphthalene	0.00053 U	mg/kg dry	0.011	0.00053	1	8260B	4/26/19 17:38	JLB	P9D0530
n-Butylbenzene	0.00049 U	mg/kg dry	0.0053	0.00049	1	8260B	4/26/19 17:38	JLB	P9D0530
n-Propylbenzene	0.00076 U	mg/kg dry	0.0053	0.00076	1	8260B	4/26/19 17:38	JLB	P9D0530
o-Xylene	0.00056 U	mg/kg dry	0.0053	0.00056	1	8260B	4/26/19 17:38	JLB	P9D0530
sec-Butylbenzene	0.00057 U	mg/kg dry	0.0053	0.00057	1	8260B	4/26/19 17:38	JLB	P9D0530
Styrene	0.00051 U	mg/kg dry	0.0053	0.00051	1	8260B	4/26/19 17:38	JLB	P9D0530
tert-Butylbenzene	0.00062 U	mg/kg dry	0.0053	0.00062	1	8260B	4/26/19 17:38	JLB	P9D0530
Tetrachloroethylene	0.00095 U	mg/kg dry	0.0053	0.00095	1	8260B	4/26/19 17:38	JLB	P9D0530
Toluene	0.00084 U	mg/kg dry	0.0053	0.00084	1	8260B	4/26/19 17:38	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 17:38	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00045 U	mg/kg dry	0.0053	0.00045	1	8260B	4/26/19 17:38	JLB	P9D0530
Trichloroethylene	0.0010 U	mg/kg dry	0.0053	0.0010	1	8260B	4/26/19 17:38	JLB	P9D0530
Trichlorofluoromethane	0.0014 U	mg/kg dry	0.011	0.0014	1	8260B	4/26/19 17:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-2-4  
Prism Sample ID: 9040348-06  
Prism Work Order: 9040348  
Time Collected: 04/17/19 17:45  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl acetate	0.00057 U	mg/kg dry	0.011	0.00057	1	8260B	4/26/19 17:38	JLB	P9D0530
Vinyl chloride	0.0010 U	mg/kg dry	0.011	0.0010	1	8260B	4/26/19 17:38	JLB	P9D0530
Xylenes, total	0.0019 U	mg/kg dry	0.016	0.0019	1	8260B	4/26/19 17:38	JLB	P9D0530
Surrogate							Recovery	Control Limits	
4-Bromofluorobenzene							108 %	70-130	
Dibromofluoromethane							109 %	84-123	
Toluene-d8							108 %	76-129	



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Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-10-12  
Prism Sample ID: 9040348-07  
Prism Work Order: 9040348  
Time Collected: 04/17/19 18:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	78.2	% by Weight	0.100	0.100	1	SM2540 G	4/30/19 16:16	KBS	P9D0557
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0024 U	mg/kg dry	0.0064	0.0024	1	8081B	4/24/19 21:22	ZRC	P9D0422
4,4'-DDE	0.0026 U	mg/kg dry	0.0064	0.0026	1	8081B	4/24/19 21:22	ZRC	P9D0422
4,4'-DDT	0.0020 U	mg/kg dry	0.0064	0.0020	1	8081B	4/24/19 21:22	ZRC	P9D0422
Aldrin	0.0023 U	mg/kg dry	0.0064	0.0023	1	8081B	4/24/19 21:22	ZRC	P9D0422
alpha-BHC	0.0015 U	mg/kg dry	0.0064	0.0015	1	8081B	4/24/19 21:22	ZRC	P9D0422
cis-Chlordane	0.0024 U	mg/kg dry	0.0064	0.0024	1	8081B	4/24/19 21:22	ZRC	P9D0422
beta-BHC	0.0025 U	mg/kg dry	0.0064	0.0025	1	8081B	4/24/19 21:22	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.064	0.012	1	8081B	4/24/19 21:22	ZRC	P9D0422
delta-BHC	0.0016 U	mg/kg dry	0.0064	0.0016	1	8081B	4/24/19 21:22	ZRC	P9D0422
Dieldrin	0.0027 U	mg/kg dry	0.0064	0.0027	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endosulfan I	0.0023 U	mg/kg dry	0.0064	0.0023	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endosulfan II	0.0022 U	mg/kg dry	0.0064	0.0022	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endosulfan Sulfate	0.0023 U	mg/kg dry	0.0064	0.0023	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endrin	0.0024 U	mg/kg dry	0.0064	0.0024	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endrin Aldehyde	0.0027 U	mg/kg dry	0.0064	0.0027	1	8081B	4/24/19 21:22	ZRC	P9D0422
Endrin Ketone	0.0023 U	mg/kg dry	0.0064	0.0023	1	8081B	4/24/19 21:22	ZRC	P9D0422
gamma-BHC	0.0016 U	mg/kg dry	0.0064	0.0016	1	8081B	4/24/19 21:22	ZRC	P9D0422
trans-Chlordane	0.0022 U	mg/kg dry	0.0064	0.0022	1	8081B	4/24/19 21:22	ZRC	P9D0422
Heptachlor	0.0017 U	mg/kg dry	0.0064	0.0017	1	8081B	4/24/19 21:22	ZRC	P9D0422
Heptachlor Epoxide	0.0023 U	mg/kg dry	0.0064	0.0023	1	8081B	4/24/19 21:22	ZRC	P9D0422
Methoxychlor	0.0034 U	mg/kg dry	0.0064	0.0034	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.013 U	mg/kg dry	0.064	0.013	1	8081B	4/24/19 21:22	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
57 %									
Tetrachloro-m-xylene									
57 %									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.066 U	mg/kg dry	0.42	0.066	1	8270D	4/24/19 15:54	JMV	P9D0401
1,2-Dichlorobenzene	0.064 U	mg/kg dry	0.42	0.064	1	8270D	4/24/19 15:54	JMV	P9D0401
1,3-Dichlorobenzene	0.059 U	mg/kg dry	0.42	0.059	1	8270D	4/24/19 15:54	JMV	P9D0401
1,4-Dichlorobenzene	0.062 U	mg/kg dry	0.42	0.062	1	8270D	4/24/19 15:54	JMV	P9D0401
1-Methylnaphthalene	0.081 U	mg/kg dry	0.42	0.081	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4,5-Trichlorophenol	0.068 U	mg/kg dry	0.42	0.068	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4,6-Trichlorophenol	0.079 U	mg/kg dry	0.42	0.079	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4-Dichlorophenol	0.082 U	mg/kg dry	0.42	0.082	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4-Dimethylphenol	0.065 U	mg/kg dry	0.42	0.065	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4-Dinitrophenol	0.059 U	mg/kg dry	0.42	0.059	1	8270D	4/24/19 15:54	JMV	P9D0401
2,4-Dinitrotoluene	0.051 U	mg/kg dry	0.42	0.051	1	8270D	4/24/19 15:54	JMV	P9D0401
2,6-Dinitrotoluene	0.056 U	mg/kg dry	0.42	0.056	1	8270D	4/24/19 15:54	JMV	P9D0401
2-Chloronaphthalene	0.061 U	mg/kg dry	0.42	0.061	1	8270D	4/24/19 15:54	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-10-12  
Prism Sample ID: 9040348-07  
Prism Work Order: 9040348  
Time Collected: 04/17/19 18:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.060 U	mg/kg dry	0.42	0.060	1	8270D	4/24/19 15:54	JMV	P9D0401
2-Methylnaphthalene	0.067 U	mg/kg dry	0.42	0.067	1	8270D	4/24/19 15:54	JMV	P9D0401
2-Methylphenol	0.054 U	mg/kg dry	0.42	0.054	1	8270D	4/24/19 15:54	JMV	P9D0401
2-Nitrophenol	0.077 U	mg/kg dry	0.42	0.077	1	8270D	4/24/19 15:54	JMV	P9D0401
3,3'-Dichlorobenzidine	0.083 U	mg/kg dry	0.42	0.083	1	8270D	4/24/19 15:54	JMV	P9D0401
3/4-Methylphenol	0.052 U	mg/kg dry	0.42	0.052	1	8270D	4/24/19 15:54	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.063 U	mg/kg dry	0.42	0.063	1	8270D	4/24/19 15:54	JMV	P9D0401
4-Bromophenyl phenyl ether	0.072 U	mg/kg dry	0.42	0.072	1	8270D	4/24/19 15:54	JMV	P9D0401
4-Chloro-3-methylphenol	0.059 U	mg/kg dry	0.42	0.059	1	8270D	4/24/19 15:54	JMV	P9D0401
4-Chloroaniline	0.051 U	mg/kg dry	0.42	0.051	1	8270D	4/24/19 15:54	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.055 U	mg/kg dry	0.42	0.055	1	8270D	4/24/19 15:54	JMV	P9D0401
4-Nitrophenol	0.065 U	mg/kg dry	0.42	0.065	1	8270D	4/24/19 15:54	JMV	P9D0401
Acenaphthene	0.057 U	mg/kg dry	0.42	0.057	1	8270D	4/24/19 15:54	JMV	P9D0401
Acenaphthylene	0.061 U	mg/kg dry	0.42	0.061	1	8270D	4/24/19 15:54	JMV	P9D0401
Anthracene	0.068 U	mg/kg dry	0.42	0.068	1	8270D	4/24/19 15:54	JMV	P9D0401
Azobenzene	0.056 U	mg/kg dry	0.42	0.056	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzo(a)anthracene	0.055 U	mg/kg dry	0.42	0.055	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzo(a)pyrene	0.046 U	mg/kg dry	0.42	0.046	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzo(b)fluoranthene	0.049 U	mg/kg dry	0.42	0.049	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzo(g,h,i)perylene	0.046 U	mg/kg dry	0.42	0.046	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzo(k)fluoranthene	0.055 U	mg/kg dry	0.42	0.055	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzoic Acid	0.036 U	mg/kg dry	0.42	0.036	1	8270D	4/24/19 15:54	JMV	P9D0401
Benzyl alcohol	0.056 U	mg/kg dry	0.42	0.056	1	8270D	4/24/19 15:54	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.073 U	mg/kg dry	0.42	0.073	1	8270D	4/24/19 15:54	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.060 U	mg/kg dry	0.42	0.060	1	8270D	4/24/19 15:54	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.072 U	mg/kg dry	0.42	0.072	1	8270D	4/24/19 15:54	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.063 U	mg/kg dry	0.42	0.063	1	8270D	4/24/19 15:54	JMV	P9D0401
Butyl benzyl phthalate	0.060 U	mg/kg dry	0.42	0.060	1	8270D	4/24/19 15:54	JMV	P9D0401
Chrysene	0.053 U	mg/kg dry	0.42	0.053	1	8270D	4/24/19 15:54	JMV	P9D0401
Dibenzo(a,h)anthracene	0.051 U	mg/kg dry	0.42	0.051	1	8270D	4/24/19 15:54	JMV	P9D0401
Dibenzofuran	0.064 U	mg/kg dry	0.42	0.064	1	8270D	4/24/19 15:54	JMV	P9D0401
Diethyl phthalate	0.058 U	mg/kg dry	0.42	0.058	1	8270D	4/24/19 15:54	JMV	P9D0401
Dimethyl phthalate	0.056 U	mg/kg dry	0.42	0.056	1	8270D	4/24/19 15:54	JMV	P9D0401
Di-n-butyl phthalate	0.060 U	mg/kg dry	0.42	0.060	1	8270D	4/24/19 15:54	JMV	P9D0401
Di-n-octyl phthalate	0.052 U	mg/kg dry	0.42	0.052	1	8270D	4/24/19 15:54	JMV	P9D0401
Fluoranthene	0.054 U	mg/kg dry	0.42	0.054	1	8270D	4/24/19 15:54	JMV	P9D0401
Fluorene	0.061 U	mg/kg dry	0.42	0.061	1	8270D	4/24/19 15:54	JMV	P9D0401
Hexachlorobenzene	0.067 U	mg/kg dry	0.42	0.067	1	8270D	4/24/19 15:54	JMV	P9D0401
Hexachlorobutadiene	0.076 U	mg/kg dry	0.42	0.076	1	8270D	4/24/19 15:54	JMV	P9D0401
Hexachlorocyclopentadiene	0.075 U	mg/kg dry	0.42	0.075	1	8270D	4/24/19 15:54	JMV	P9D0401
Hexachloroethane	0.071 U	mg/kg dry	0.42	0.071	1	8270D	4/24/19 15:54	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.048 U	mg/kg dry	0.42	0.048	1	8270D	4/24/19 15:54	JMV	P9D0401
Isophorone	0.057 U	mg/kg dry	0.42	0.057	1	8270D	4/24/19 15:54	JMV	P9D0401
Naphthalene	0.068 U	mg/kg dry	0.42	0.068	1	8270D	4/24/19 15:54	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-10-12  
Prism Sample ID: 9040348-07  
Prism Work Order: 9040348  
Time Collected: 04/17/19 18:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Nitrobenzene	0.060 U	mg/kg dry	0.42	0.060	1	8270D	4/24/19 15:54	JMV	P9D0401
N-Nitroso-di-n-propylamine	0.066 U	mg/kg dry	0.42	0.066	1	8270D	4/24/19 15:54	JMV	P9D0401
N-Nitrosodiphenylamine	0.064 U	mg/kg dry	0.42	0.064	1	8270D	4/24/19 15:54	JMV	P9D0401
Pentachlorophenol	0.050 U	mg/kg dry	0.42	0.050	1	8270D	4/24/19 15:54	JMV	P9D0401
Phenanthrene	0.055 U	mg/kg dry	0.42	0.055	1	8270D	4/24/19 15:54	JMV	P9D0401
Phenol	0.062 U	mg/kg dry	0.42	0.062	1	8270D	4/24/19 15:54	JMV	P9D0401
Pyrene	0.056 U	mg/kg dry	0.42	0.056	1	8270D	4/24/19 15:54	JMV	P9D0401
Pyridine	0.074 U	mg/kg dry	0.42	0.074	1	8270D	4/24/19 15:54	JMV	P9D0401
						Surrogate	Recovery		Control Limits
						2,4,6-Tribromophenol	83 %		39-132
						2-Fluorobiphenyl	73 %		44-115
						2-Fluorophenol	73 %		35-115
						Nitrobenzene-d5	65 %		37-122
						Phenol-d5	74 %		34-121
						Terphenyl-d14	86 %		54-127

### Total Metals

Mercury	0.022 U	mg/kg dry	0.064	0.022	1	7471B	4/29/19 13:49	MMR	P9D0510
<b>Arsenic</b>	<b>5.2</b>	<b>mg/kg dry</b>	<b>1.3</b>	<b>0.17</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:57</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Barium</b>	<b>54</b>	<b>mg/kg dry</b>	<b>13</b>	<b>3.8</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:57</b>	<b>JAB</b>	<b>P9D0478</b>
Cadmium	0.043 U	mg/kg dry	0.64	0.043	1	6010D	4/26/19 14:57	JAB	P9D0478
<b>Chromium</b>	<b>120</b>	<b>mg/kg dry</b>	<b>1.3</b>	<b>0.097</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:57</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Lead</b>	<b>20</b>	<b>mg/kg dry</b>	<b>1.3</b>	<b>0.21</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 14:57</b>	<b>JAB</b>	<b>P9D0478</b>
Selenium	0.35 U	mg/kg dry	1.3	0.35	1	6010D	4/26/19 14:57	JAB	P9D0478
Silver	0.039 U	mg/kg dry	0.64	0.039	1	6010D	4/26/19 14:57	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00050 U	mg/kg dry	0.0041	0.00050	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1,1-Trichloroethane	0.00061 U	mg/kg dry	0.0041	0.00061	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00030 U	mg/kg dry	0.0041	0.00030	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1,2-Trichloroethane	0.00045 U	mg/kg dry	0.0041	0.00045	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1-Dichloroethane	0.00074 U	mg/kg dry	0.0041	0.00074	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1-Dichloroethylene	0.00076 U	mg/kg dry	0.0041	0.00076	1	8260B	4/26/19 18:08	JLB	P9D0530
1,1-Dichloropropylene	0.00064 U	mg/kg dry	0.0041	0.00064	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00059 U	mg/kg dry	0.0082	0.00059	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2,3-Trichloropropane	0.00047 U	mg/kg dry	0.0041	0.00047	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00039 U	mg/kg dry	0.0082	0.00039	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00044 U	mg/kg dry	0.0041	0.00044	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2-Dibromoethane	0.00037 U	mg/kg dry	0.0041	0.00037	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2-Dichlorobenzene	0.00046 U	mg/kg dry	0.0041	0.00046	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2-Dichloroethane	0.00049 U	mg/kg dry	0.0041	0.00049	1	8260B	4/26/19 18:08	JLB	P9D0530
1,2-Dichloropropane	0.00062 U	mg/kg dry	0.0041	0.00062	1	8260B	4/26/19 18:08	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00052 U	mg/kg dry	0.0041	0.00052	1	8260B	4/26/19 18:08	JLB	P9D0530
1,3-Dichlorobenzene	0.00051 U	mg/kg dry	0.0041	0.00051	1	8260B	4/26/19 18:08	JLB	P9D0530
1,3-Dichloropropane	0.00034 U	mg/kg dry	0.0041	0.00034	1	8260B	4/26/19 18:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-10-12  
Prism Sample ID: 9040348-07  
Prism Work Order: 9040348  
Time Collected: 04/17/19 18:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00052 U	mg/kg dry	0.0041	0.00052	1	8260B	4/26/19 18:08	JLB	P9D0530
2,2-Dichloropropane	0.00051 U	mg/kg dry	0.0041	0.00051	1	8260B	4/26/19 18:08	JLB	P9D0530
2-Chlorotoluene	0.00055 U	mg/kg dry	0.0041	0.00055	1	8260B	4/26/19 18:08	JLB	P9D0530
4-Chlorotoluene	0.00047 U	mg/kg dry	0.0041	0.00047	1	8260B	4/26/19 18:08	JLB	P9D0530
4-Isopropyltoluene	0.0010 U	mg/kg dry	0.0041	0.0010	1	8260B	4/26/19 18:08	JLB	P9D0530
<b>Acetone</b>	<b>0.0052 J</b>	<b>mg/kg dry</b>	<b>0.016</b>	<b>0.0011</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 18:08</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.00064 U	mg/kg dry	0.0041	0.00064	1	8260B	4/26/19 18:08	JLB	P9D0530
Bromobenzene	0.00057 U	mg/kg dry	0.0041	0.00057	1	8260B	4/26/19 18:08	JLB	P9D0530
Bromochloromethane	0.00068 U	mg/kg dry	0.0041	0.00068	1	8260B	4/26/19 18:08	JLB	P9D0530
Bromodichloromethane	0.00039 U	mg/kg dry	0.0041	0.00039	1	8260B	4/26/19 18:08	JLB	P9D0530
Bromoform	0.00032 U	mg/kg dry	0.0041	0.00032	1	8260B	4/26/19 18:08	JLB	P9D0530
Bromomethane	0.0020 U	mg/kg dry	0.0082	0.0020	1	8260B	4/26/19 18:08	JLB	P9D0530
Carbon Tetrachloride	0.00081 U	mg/kg dry	0.0041	0.00081	1	8260B	4/26/19 18:08	JLB	P9D0530
Chlorobenzene	0.00064 U	mg/kg dry	0.0041	0.00064	1	8260B	4/26/19 18:08	JLB	P9D0530
Chloroethane	0.00079 U	mg/kg dry	0.0082	0.00079	1	8260B	4/26/19 18:08	JLB	P9D0530
Chloroform	0.00050 U	mg/kg dry	0.0041	0.00050	1	8260B	4/26/19 18:08	JLB	P9D0530
Chloromethane	0.0013 U	mg/kg dry	0.0082	0.0013	1	8260B	4/26/19 18:08	JLB	P9D0530
cis-1,2-Dichloroethylene	0.00065 U	mg/kg dry	0.0041	0.00065	1	8260B	4/26/19 18:08	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00041 U	mg/kg dry	0.0041	0.00041	1	8260B	4/26/19 18:08	JLB	P9D0530
Dibromochloromethane	0.00028 U	mg/kg dry	0.0041	0.00028	1	8260B	4/26/19 18:08	JLB	P9D0530
Dichlorodifluoromethane	0.0012 U	mg/kg dry	0.0082	0.0012	1	8260B	4/26/19 18:08	JLB	P9D0530
Ethylbenzene	0.00062 U	mg/kg dry	0.0041	0.00062	1	8260B	4/26/19 18:08	JLB	P9D0530
Isopropyl Ether	0.00061 U	mg/kg dry	0.0041	0.00061	1	8260B	4/26/19 18:08	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00048 U	mg/kg dry	0.0041	0.00048	1	8260B	4/26/19 18:08	JLB	P9D0530
m,p-Xylenes	0.0011 U	mg/kg dry	0.0082	0.0011	1	8260B	4/26/19 18:08	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00029 U	mg/kg dry	0.016	0.00029	1	8260B	4/26/19 18:08	JLB	P9D0530
Methyl Ethyl Ketone (2-Butanone)	0.00097 U	mg/kg dry	0.016	0.00097	1	8260B	4/26/19 18:08	JLB	P9D0530
Methyl Isobutyl Ketone	0.00034 U	mg/kg dry	0.016	0.00034	1	8260B	4/26/19 18:08	JLB	P9D0530
Methylene Chloride	0.00067 U	mg/kg dry	0.0041	0.00067	1	8260B	4/26/19 18:08	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00058 U	mg/kg dry	0.0041	0.00058	1	8260B	4/26/19 18:08	JLB	P9D0530
Naphthalene	0.00042 U	mg/kg dry	0.0082	0.00042	1	8260B	4/26/19 18:08	JLB	P9D0530
n-Butylbenzene	0.00039 U	mg/kg dry	0.0041	0.00039	1	8260B	4/26/19 18:08	JLB	P9D0530
n-Propylbenzene	0.00060 U	mg/kg dry	0.0041	0.00060	1	8260B	4/26/19 18:08	JLB	P9D0530
o-Xylene	0.00044 U	mg/kg dry	0.0041	0.00044	1	8260B	4/26/19 18:08	JLB	P9D0530
sec-Butylbenzene	0.00045 U	mg/kg dry	0.0041	0.00045	1	8260B	4/26/19 18:08	JLB	P9D0530
Styrene	0.00040 U	mg/kg dry	0.0041	0.00040	1	8260B	4/26/19 18:08	JLB	P9D0530
tert-Butylbenzene	0.00049 U	mg/kg dry	0.0041	0.00049	1	8260B	4/26/19 18:08	JLB	P9D0530
Tetrachloroethylene	0.00075 U	mg/kg dry	0.0041	0.00075	1	8260B	4/26/19 18:08	JLB	P9D0530
Toluene	0.00066 U	mg/kg dry	0.0041	0.00066	1	8260B	4/26/19 18:08	JLB	P9D0530
trans-1,2-Dichloroethylene	0.00079 U	mg/kg dry	0.0041	0.00079	1	8260B	4/26/19 18:08	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00035 U	mg/kg dry	0.0041	0.00035	1	8260B	4/26/19 18:08	JLB	P9D0530
Trichloroethylene	0.00080 U	mg/kg dry	0.0041	0.00080	1	8260B	4/26/19 18:08	JLB	P9D0530
Trichlorofluoromethane	0.0011 U	mg/kg dry	0.0082	0.0011	1	8260B	4/26/19 18:08	JLB	P9D0530
Vinyl acetate	0.00045 U	mg/kg dry	0.0082	0.00045	1	8260B	4/26/19 18:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB4-10-12  
Prism Sample ID: 9040348-07  
Prism Work Order: 9040348  
Time Collected: 04/17/19 18:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl chloride	0.00082 U	mg/kg dry	0.0082	0.00082	1	8260B	4/26/19 18:08	JLB	P9D0530
Xylenes, total	0.0015 U	mg/kg dry	0.012	0.0015	1	8260B	4/26/19 18:08	JLB	P9D0530
Surrogate									
				Recovery			Control Limits		
				4-Bromofluorobenzene			105 %		
				Dibromofluoromethane			110 %		
				Toluene-d8			106 %		



Wood Environ. & Infrastructure Solutions (Ch Attn: John Maas  
Project: NCDOT Shelby R-2707 D&E  
2801 Yorkmont Rd. #100 Charlotte, NC 28208  
Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB5-0-2  
Prism Sample ID: 9040348-08  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:40  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.2	% by Weight	0.100	0.100	1	SM2540 G	5/1/19 16:19	KBS	P9E0019
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0023 U	mg/kg dry	0.0060	0.0023	1	8081B	4/24/19 21:34	ZRC	P9D0422
4,4'-DDE	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:34	ZRC	P9D0422
4,4'-DDT	0.0018 U	mg/kg dry	0.0060	0.0018	1	8081B	4/24/19 21:34	ZRC	P9D0422
Aldrin	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:34	ZRC	P9D0422
alpha-BHC	0.0014 U	mg/kg dry	0.0060	0.0014	1	8081B	4/24/19 21:34	ZRC	P9D0422
cis-Chlordane	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:34	ZRC	P9D0422
beta-BHC	0.0024 U	mg/kg dry	0.0060	0.0024	1	8081B	4/24/19 21:34	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.060	0.012	1	8081B	4/24/19 21:34	ZRC	P9D0422
delta-BHC	0.0015 U	mg/kg dry	0.0060	0.0015	1	8081B	4/24/19 21:34	ZRC	P9D0422
Dieldrin	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endosulfan I	0.0021 U	mg/kg dry	0.0060	0.0021	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endosulfan II	0.0021 U	mg/kg dry	0.0060	0.0021	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endosulfan Sulfate	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endrin	0.0023 U	mg/kg dry	0.0060	0.0023	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endrin Aldehyde	0.0025 U	mg/kg dry	0.0060	0.0025	1	8081B	4/24/19 21:34	ZRC	P9D0422
Endrin Ketone	0.0022 U	mg/kg dry	0.0060	0.0022	1	8081B	4/24/19 21:34	ZRC	P9D0422
gamma-BHC	0.0015 U	mg/kg dry	0.0060	0.0015	1	8081B	4/24/19 21:34	ZRC	P9D0422
trans-Chlordane	0.0020 U	mg/kg dry	0.0060	0.0020	1	8081B	4/24/19 21:34	ZRC	P9D0422
Heptachlor	0.0016 U	mg/kg dry	0.0060	0.0016	1	8081B	4/24/19 21:34	ZRC	P9D0422
Heptachlor Epoxide	0.0021 U	mg/kg dry	0.0060	0.0021	1	8081B	4/24/19 21:34	ZRC	P9D0422
Methoxychlor	0.0032 U	mg/kg dry	0.0060	0.0032	1	8081B	4/29/19 14:06	ZRC	P9D0422
Toxaphene	0.012 U	mg/kg dry	0.060	0.012	1	8081B	4/24/19 21:34	ZRC	P9D0422
Surrogate									
Decachlorobiphenyl									
64 %									
Tetrachloro-m-xylene									
64 %									
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.062 U	mg/kg dry	0.40	0.062	1	8270D	4/24/19 16:16	JMV	P9D0401
1,2-Dichlorobenzene	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 16:16	JMV	P9D0401
1,3-Dichlorobenzene	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
1,4-Dichlorobenzene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 16:16	JMV	P9D0401
1-Methylnaphthalene	0.076 U	mg/kg dry	0.40	0.076	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4,5-Trichlorophenol	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4,6-Trichlorophenol	0.074 U	mg/kg dry	0.40	0.074	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4-Dichlorophenol	0.076 U	mg/kg dry	0.40	0.076	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4-Dimethylphenol	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4-Dinitrophenol	0.055 U	mg/kg dry	0.40	0.055	1	8270D	4/24/19 16:16	JMV	P9D0401
2,4-Dinitrotoluene	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 16:16	JMV	P9D0401
2,6-Dinitrotoluene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:16	JMV	P9D0401
2-Chloronaphthalene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:16	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB5-0-2  
Prism Sample ID: 9040348-08  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:40  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
2-Methylnaphthalene	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 16:16	JMV	P9D0401
2-Methylphenol	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:16	JMV	P9D0401
2-Nitrophenol	0.072 U	mg/kg dry	0.40	0.072	1	8270D	4/24/19 16:16	JMV	P9D0401
3,3'-Dichlorobenzidine	0.078 U	mg/kg dry	0.40	0.078	1	8270D	4/24/19 16:16	JMV	P9D0401
3/4-Methylphenol	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 16:16	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 16:16	JMV	P9D0401
4-Bromophenyl phenyl ether	0.068 U	mg/kg dry	0.40	0.068	1	8270D	4/24/19 16:16	JMV	P9D0401
4-Chloro-3-methylphenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
4-Chloroaniline	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 16:16	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:16	JMV	P9D0401
4-Nitrophenol	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 16:16	JMV	P9D0401
Acenaphthene	0.054 U	mg/kg dry	0.40	0.054	1	8270D	4/24/19 16:16	JMV	P9D0401
Acenaphthylene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:16	JMV	P9D0401
Anthracene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 16:16	JMV	P9D0401
Azobenzene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzo(a)anthracene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzo(a)pyrene	0.043 U	mg/kg dry	0.40	0.043	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzo(b)fluoranthene	0.046 U	mg/kg dry	0.40	0.046	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzo(g,h,i)perylene	0.043 U	mg/kg dry	0.40	0.043	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzo(k)fluoranthene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzoic Acid	0.033 U	mg/kg dry	0.40	0.033	1	8270D	4/24/19 16:16	JMV	P9D0401
Benzyl alcohol	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 16:16	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.068 U	mg/kg dry	0.40	0.068	1	8270D	4/24/19 16:16	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 16:16	JMV	P9D0401
Butyl benzyl phthalate	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
Chrysene	0.050 U	mg/kg dry	0.40	0.050	1	8270D	4/24/19 16:16	JMV	P9D0401
Dibenzo(a,h)anthracene	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 16:16	JMV	P9D0401
Dibenzofuran	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 16:16	JMV	P9D0401
Diethyl phthalate	0.055 U	mg/kg dry	0.40	0.055	1	8270D	4/24/19 16:16	JMV	P9D0401
Dimethyl phthalate	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
Di-n-butyl phthalate	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
Di-n-octyl phthalate	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 16:16	JMV	P9D0401
Fluoranthene	0.050 U	mg/kg dry	0.40	0.050	1	8270D	4/24/19 16:16	JMV	P9D0401
Fluorene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:16	JMV	P9D0401
Hexachlorobenzene	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 16:16	JMV	P9D0401
Hexachlorobutadiene	0.071 U	mg/kg dry	0.40	0.071	1	8270D	4/24/19 16:16	JMV	P9D0401
Hexachlorocyclopentadiene	0.071 U	mg/kg dry	0.40	0.071	1	8270D	4/24/19 16:16	JMV	P9D0401
Hexachloroethane	0.066 U	mg/kg dry	0.40	0.066	1	8270D	4/24/19 16:16	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.045 U	mg/kg dry	0.40	0.045	1	8270D	4/24/19 16:16	JMV	P9D0401
Isophorone	0.054 U	mg/kg dry	0.40	0.054	1	8270D	4/24/19 16:16	JMV	P9D0401
Naphthalene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 16:16	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB5-0-2  
Prism Sample ID: 9040348-08  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:40  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Nitrobenzene	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:16	JMV	P9D0401
N-Nitroso-di-n-propylamine	0.062 U	mg/kg dry	0.40	0.062	1	8270D	4/24/19 16:16	JMV	P9D0401
N-Nitrosodiphenylamine	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 16:16	JMV	P9D0401
Pentachlorophenol	0.047 U	mg/kg dry	0.40	0.047	1	8270D	4/24/19 16:16	JMV	P9D0401
Phenanthrene	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:16	JMV	P9D0401
Phenol	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 16:16	JMV	P9D0401
Pyrene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:16	JMV	P9D0401
Pyridine	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 16:16	JMV	P9D0401
						Surrogate	Recovery		Control Limits
						2,4,6-Tribromophenol	83 %		39-132
						2-Fluorobiphenyl	74 %		44-115
						2-Fluorophenol	75 %		35-115
						Nitrobenzene-d5	66 %		37-122
						Phenol-d5	73 %		34-121
						Terphenyl-d14	83 %		54-127

### Total Metals

Mercury	0.022 J	mg/kg dry	0.060	0.021	1	7471B	4/29/19 13:54	MMR	P9D0510
Arsenic	4.3	mg/kg dry	1.2	0.16	1	6010D	4/26/19 15:05	JAB	P9D0478
Barium	43	mg/kg dry	12	3.6	1	6010D	4/26/19 15:05	JAB	P9D0478
Cadmium	0.050 J	mg/kg dry	0.60	0.041	1	6010D	4/26/19 15:05	JAB	P9D0478
Chromium	88	mg/kg dry	1.2	0.091	1	6010D	4/26/19 15:05	JAB	P9D0478
Lead	12	mg/kg dry	1.2	0.20	1	6010D	4/26/19 15:05	JAB	P9D0478
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/26/19 15:05	JAB	P9D0478
Silver	0.037 U	mg/kg dry	0.60	0.037	1	6010D	4/26/19 15:05	JAB	P9D0478

### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00067 U	mg/kg dry	0.0055	0.00067	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1,1-Trichloroethane	0.00080 U	mg/kg dry	0.0055	0.00080	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00040 U	mg/kg dry	0.0055	0.00040	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1,2-Trichloroethane	0.00059 U	mg/kg dry	0.0055	0.00059	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1-Dichloroethane	0.00098 U	mg/kg dry	0.0055	0.00098	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1-Dichloroethylene	0.0010 U	mg/kg dry	0.0055	0.0010	1	8260B	4/26/19 20:37	JLB	P9D0530
1,1-Dichloropropylene	0.00084 U	mg/kg dry	0.0055	0.00084	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00078 U	mg/kg dry	0.011	0.00078	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2,3-Trichloropropane	0.00062 U	mg/kg dry	0.0055	0.00062	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00052 U	mg/kg dry	0.011	0.00052	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00058 U	mg/kg dry	0.0055	0.00058	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2-Dibromoethane	0.00049 U	mg/kg dry	0.0055	0.00049	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2-Dichlorobenzene	0.00061 U	mg/kg dry	0.0055	0.00061	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2-Dichloroethane	0.00065 U	mg/kg dry	0.0055	0.00065	1	8260B	4/26/19 20:37	JLB	P9D0530
1,2-Dichloropropane	0.00082 U	mg/kg dry	0.0055	0.00082	1	8260B	4/26/19 20:37	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00069 U	mg/kg dry	0.0055	0.00069	1	8260B	4/26/19 20:37	JLB	P9D0530
1,3-Dichlorobenzene	0.00068 U	mg/kg dry	0.0055	0.00068	1	8260B	4/26/19 20:37	JLB	P9D0530
1,3-Dichloropropane	0.00046 U	mg/kg dry	0.0055	0.00046	1	8260B	4/26/19 20:37	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB5-0-2  
Prism Sample ID: 9040348-08  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:40  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00069 U	mg/kg dry	0.0055	0.00069	1	8260B	4/26/19 20:37	JLB	P9D0530
2,2-Dichloropropane	0.00068 U	mg/kg dry	0.0055	0.00068	1	8260B	4/26/19 20:37	JLB	P9D0530
2-Chlorotoluene	0.00073 U	mg/kg dry	0.0055	0.00073	1	8260B	4/26/19 20:37	JLB	P9D0530
4-Chlorotoluene	0.00062 U	mg/kg dry	0.0055	0.00062	1	8260B	4/26/19 20:37	JLB	P9D0530
<b>4-Isopropyltoluene</b>	<b>0.0063</b>	<b>mg/kg dry</b>	<b>0.0055</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 20:37</b>	<b>JLB</b>	<b>P9D0530</b>
<b>Acetone</b>	<b>0.055</b>	<b>mg/kg dry</b>	<b>0.022</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 20:37</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.00085 U	mg/kg dry	0.0055	0.00085	1	8260B	4/26/19 20:37	JLB	P9D0530
Bromobenzene	0.00076 U	mg/kg dry	0.0055	0.00076	1	8260B	4/26/19 20:37	JLB	P9D0530
Bromo(chloromethane)	0.00090 U	mg/kg dry	0.0055	0.00090	1	8260B	4/26/19 20:37	JLB	P9D0530
Bromo(dichloromethane)	0.00052 U	mg/kg dry	0.0055	0.00052	1	8260B	4/26/19 20:37	JLB	P9D0530
Bromoform	0.00042 U	mg/kg dry	0.0055	0.00042	1	8260B	4/26/19 20:37	JLB	P9D0530
Bromomethane	0.0027 U	mg/kg dry	0.011	0.0027	1	8260B	4/26/19 20:37	JLB	P9D0530
Carbon Tetrachloride	0.0011 U	mg/kg dry	0.0055	0.0011	1	8260B	4/26/19 20:37	JLB	P9D0530
Chlorobenzene	0.00085 U	mg/kg dry	0.0055	0.00085	1	8260B	4/26/19 20:37	JLB	P9D0530
Chloroethane	0.0010 U	mg/kg dry	0.011	0.0010	1	8260B	4/26/19 20:37	JLB	P9D0530
Chloroform	0.00067 U	mg/kg dry	0.0055	0.00067	1	8260B	4/26/19 20:37	JLB	P9D0530
Chloromethane	0.0017 U	mg/kg dry	0.011	0.0017	1	8260B	4/26/19 20:37	JLB	P9D0530
cis-1,2-Dichloroethylene	0.00086 U	mg/kg dry	0.0055	0.00086	1	8260B	4/26/19 20:37	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00054 U	mg/kg dry	0.0055	0.00054	1	8260B	4/26/19 20:37	JLB	P9D0530
Dibromochloromethane	0.00037 U	mg/kg dry	0.0055	0.00037	1	8260B	4/26/19 20:37	JLB	P9D0530
Dichlorodifluoromethane	0.0015 U	mg/kg dry	0.011	0.0015	1	8260B	4/26/19 20:37	JLB	P9D0530
Ethylbenzene	0.00082 U	mg/kg dry	0.0055	0.00082	1	8260B	4/26/19 20:37	JLB	P9D0530
Isopropyl Ether	0.00080 U	mg/kg dry	0.0055	0.00080	1	8260B	4/26/19 20:37	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00063 U	mg/kg dry	0.0055	0.00063	1	8260B	4/26/19 20:37	JLB	P9D0530
m,p-Xylenes	0.0014 U	mg/kg dry	0.011	0.0014	1	8260B	4/26/19 20:37	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00038 U	mg/kg dry	0.022	0.00038	1	8260B	4/26/19 20:37	JLB	P9D0530
Methyl Ethyl Ketone (2-Butanone)	0.0013 U	mg/kg dry	0.022	0.0013	1	8260B	4/26/19 20:37	JLB	P9D0530
Methyl Isobutyl Ketone	0.00045 U	mg/kg dry	0.022	0.00045	1	8260B	4/26/19 20:37	JLB	P9D0530
Methylene Chloride	0.00088 U	mg/kg dry	0.0055	0.00088	1	8260B	4/26/19 20:37	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00076 U	mg/kg dry	0.0055	0.00076	1	8260B	4/26/19 20:37	JLB	P9D0530
Naphthalene	0.00055 U	mg/kg dry	0.011	0.00055	1	8260B	4/26/19 20:37	JLB	P9D0530
n-Butylbenzene	0.00051 U	mg/kg dry	0.0055	0.00051	1	8260B	4/26/19 20:37	JLB	P9D0530
n-Propylbenzene	0.00079 U	mg/kg dry	0.0055	0.00079	1	8260B	4/26/19 20:37	JLB	P9D0530
o-Xylene	0.00058 U	mg/kg dry	0.0055	0.00058	1	8260B	4/26/19 20:37	JLB	P9D0530
sec-Butylbenzene	0.00059 U	mg/kg dry	0.0055	0.00059	1	8260B	4/26/19 20:37	JLB	P9D0530
Styrene	0.00053 U	mg/kg dry	0.0055	0.00053	1	8260B	4/26/19 20:37	JLB	P9D0530
tert-Butylbenzene	0.00065 U	mg/kg dry	0.0055	0.00065	1	8260B	4/26/19 20:37	JLB	P9D0530
Tetrachloroethylene	0.00099 U	mg/kg dry	0.0055	0.00099	1	8260B	4/26/19 20:37	JLB	P9D0530
Toluene	0.00087 U	mg/kg dry	0.0055	0.00087	1	8260B	4/26/19 20:37	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0010 U	mg/kg dry	0.0055	0.0010	1	8260B	4/26/19 20:37	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00047 U	mg/kg dry	0.0055	0.00047	1	8260B	4/26/19 20:37	JLB	P9D0530
Trichloroethylene	0.0011 U	mg/kg dry	0.0055	0.0011	1	8260B	4/26/19 20:37	JLB	P9D0530
Trichlorofluoromethane	0.0015 U	mg/kg dry	0.011	0.0015	1	8260B	4/26/19 20:37	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB5-0-2  
Prism Sample ID: 9040348-08  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:40  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl acetate	0.00059 U	mg/kg dry	0.011	0.00059	1	8260B	4/26/19 20:37	JLB	P9D0530
Vinyl chloride	0.0011 U	mg/kg dry	0.011	0.0011	1	8260B	4/26/19 20:37	JLB	P9D0530
Xylenes, total	0.0020 U	mg/kg dry	0.016	0.0020	1	8260B	4/26/19 20:37	JLB	P9D0530
Surrogate				Recovery			Control Limits		
				4-Bromofluorobenzene 107 %			70-130		
				Dibromofluoromethane 112 %			84-123		
				Toluene-d8 106 %			76-129		

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
 Sample Matrix: Solid

Client Sample ID: P623-SB6-0-2  
 Prism Sample ID: 9040348-09  
 Prism Work Order: 9040348  
 Time Collected: 04/18/19 09:50  
 Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	82.0	% by Weight	0.100	0.100	1	SM2540 G	5/1/19 16:19	KBS	P9E0019
<b>Organochlorine Pesticides by GC/ECD</b>									
4,4'-DDD	0.0023 U	mg/kg dry	0.0061	0.0023	1	8081B	4/25/19 12:31	ZRC	P9D0422
4,4'-DDE	0.0025 U	mg/kg dry	0.0061	0.0025	1	8081B	4/25/19 12:31	ZRC	P9D0422
4,4'-DDT	0.0019 U	mg/kg dry	0.0061	0.0019	1	8081B	4/25/19 12:31	ZRC	P9D0422
Aldrin	0.0022 U	mg/kg dry	0.0061	0.0022	1	8081B	4/25/19 12:31	ZRC	P9D0422
alpha-BHC	0.0014 U	mg/kg dry	0.0061	0.0014	1	8081B	4/25/19 12:31	ZRC	P9D0422
cis-Chlordane	0.0023 U	mg/kg dry	0.0061	0.0023	1	8081B	4/25/19 12:31	ZRC	P9D0422
beta-BHC	0.0024 U	mg/kg dry	0.0061	0.0024	1	8081B	4/25/19 12:31	ZRC	P9D0422
Chlordane	0.012 U	mg/kg dry	0.061	0.012	1	8081B	4/25/19 12:31	ZRC	P9D0422
delta-BHC	0.0015 U	mg/kg dry	0.0061	0.0015	1	8081B	4/25/19 12:31	ZRC	P9D0422
Dieldrin	0.0025 U	mg/kg dry	0.0061	0.0025	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endosulfan I	0.0022 U	mg/kg dry	0.0061	0.0022	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endosulfan II	0.0021 U	mg/kg dry	0.0061	0.0021	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endosulfan Sulfate	0.0022 U	mg/kg dry	0.0061	0.0022	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endrin	0.0023 U	mg/kg dry	0.0061	0.0023	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endrin Aldehyde	0.0026 U	mg/kg dry	0.0061	0.0026	1	8081B	4/25/19 12:31	ZRC	P9D0422
Endrin Ketone	0.0022 U	mg/kg dry	0.0061	0.0022	1	8081B	4/25/19 12:31	ZRC	P9D0422
gamma-BHC	0.0015 U	mg/kg dry	0.0061	0.0015	1	8081B	4/25/19 12:31	ZRC	P9D0422
trans-Chlordane	0.0021 U	mg/kg dry	0.0061	0.0021	1	8081B	4/25/19 12:31	ZRC	P9D0422
Heptachlor	0.0017 U	mg/kg dry	0.0061	0.0017	1	8081B	4/25/19 12:31	ZRC	P9D0422
Heptachlor Epoxide	0.0022 U	mg/kg dry	0.0061	0.0022	1	8081B	4/25/19 12:31	ZRC	P9D0422
Methoxychlor	0.0032 U	mg/kg dry	0.0061	0.0032	1	8081B	4/25/19 12:31	ZRC	P9D0422
Toxaphene	0.012 U	mg/kg dry	0.061	0.012	1	8081B	4/25/19 12:31	ZRC	P9D0422
		Surrogate				Recovery		Control Limits	
		Decachlorobiphenyl				73 %		26-204	
		Tetrachloro-m-xylene				66 %		40-162	
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 16:38	JMV	P9D0401
1,2-Dichlorobenzene	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 16:38	JMV	P9D0401
1,3-Dichlorobenzene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401
1,4-Dichlorobenzene	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 16:38	JMV	P9D0401
1-Methylnaphthalene	0.077 U	mg/kg dry	0.40	0.077	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4,5-Trichlorophenol	0.065 U	mg/kg dry	0.40	0.065	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4,6-Trichlorophenol	0.075 U	mg/kg dry	0.40	0.075	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4-Dichlorophenol	0.078 U	mg/kg dry	0.40	0.078	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4-Dimethylphenol	0.062 U	mg/kg dry	0.40	0.062	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4-Dinitrophenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:38	JMV	P9D0401
2,4-Dinitrotoluene	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 16:38	JMV	P9D0401
2,6-Dinitrotoluene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
2-Chloronaphthalene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 16:38	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB6-0-2  
Prism Sample ID: 9040348-09  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:50  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401
2-Methylnaphthalene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 16:38	JMV	P9D0401
2-Methylphenol	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:38	JMV	P9D0401
2-Nitrophenol	0.073 U	mg/kg dry	0.40	0.073	1	8270D	4/24/19 16:38	JMV	P9D0401
3,3'-Dichlorobenzidine	0.079 U	mg/kg dry	0.40	0.079	1	8270D	4/24/19 16:38	JMV	P9D0401
3/4-Methylphenol	0.050 U	mg/kg dry	0.40	0.050	1	8270D	4/24/19 16:38	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 16:38	JMV	P9D0401
4-Bromophenyl phenyl ether	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 16:38	JMV	P9D0401
4-Chloro-3-methylphenol	0.056 U	mg/kg dry	0.40	0.056	1	8270D	4/24/19 16:38	JMV	P9D0401
4-Chloroaniline	0.048 U	mg/kg dry	0.40	0.048	1	8270D	4/24/19 16:38	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:38	JMV	P9D0401
4-Nitrophenol	0.062 U	mg/kg dry	0.40	0.062	1	8270D	4/24/19 16:38	JMV	P9D0401
Acenaphthene	0.055 U	mg/kg dry	0.40	0.055	1	8270D	4/24/19 16:38	JMV	P9D0401
Acenaphthylene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 16:38	JMV	P9D0401
Anthracene	0.065 U	mg/kg dry	0.40	0.065	1	8270D	4/24/19 16:38	JMV	P9D0401
Azobenzene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzo(a)anthracene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzo(a)pyrene	0.043 U	mg/kg dry	0.40	0.043	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzo(b)fluoranthene	0.047 U	mg/kg dry	0.40	0.047	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzo(g,h,i)perylene	0.044 U	mg/kg dry	0.40	0.044	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzo(k)fluoranthene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzoic Acid	0.034 U	mg/kg dry	0.40	0.034	1	8270D	4/24/19 16:38	JMV	P9D0401
Benzyl alcohol	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.070 U	mg/kg dry	0.40	0.070	1	8270D	4/24/19 16:38	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.069 U	mg/kg dry	0.40	0.069	1	8270D	4/24/19 16:38	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.060 U	mg/kg dry	0.40	0.060	1	8270D	4/24/19 16:38	JMV	P9D0401
Butyl benzyl phthalate	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401
Chrysene	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:38	JMV	P9D0401
Dibenzo(a,h)anthracene	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 16:38	JMV	P9D0401
Dibenzofuran	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 16:38	JMV	P9D0401
Diethyl phthalate	0.055 U	mg/kg dry	0.40	0.055	1	8270D	4/24/19 16:38	JMV	P9D0401
Dimethyl phthalate	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401
Di-n-butyl phthalate	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401
Di-n-octyl phthalate	0.049 U	mg/kg dry	0.40	0.049	1	8270D	4/24/19 16:38	JMV	P9D0401
Fluoranthene	0.051 U	mg/kg dry	0.40	0.051	1	8270D	4/24/19 16:38	JMV	P9D0401
Fluorene	0.058 U	mg/kg dry	0.40	0.058	1	8270D	4/24/19 16:38	JMV	P9D0401
Hexachlorobenzene	0.064 U	mg/kg dry	0.40	0.064	1	8270D	4/24/19 16:38	JMV	P9D0401
Hexachlorobutadiene	0.072 U	mg/kg dry	0.40	0.072	1	8270D	4/24/19 16:38	JMV	P9D0401
Hexachlorocyclopentadiene	0.072 U	mg/kg dry	0.40	0.072	1	8270D	4/24/19 16:38	JMV	P9D0401
Hexachloroethane	0.067 U	mg/kg dry	0.40	0.067	1	8270D	4/24/19 16:38	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.046 U	mg/kg dry	0.40	0.046	1	8270D	4/24/19 16:38	JMV	P9D0401
Isophorone	0.054 U	mg/kg dry	0.40	0.054	1	8270D	4/24/19 16:38	JMV	P9D0401
Naphthalene	0.065 U	mg/kg dry	0.40	0.065	1	8270D	4/24/19 16:38	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB6-0-2  
Prism Sample ID: 9040348-09  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:50  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID																					
Nitrobenzene	0.057 U	mg/kg dry	0.40	0.057	1	8270D	4/24/19 16:38	JMV	P9D0401																					
N-Nitroso-di-n-propylamine	0.063 U	mg/kg dry	0.40	0.063	1	8270D	4/24/19 16:38	JMV	P9D0401																					
N-Nitrosodiphenylamine	0.061 U	mg/kg dry	0.40	0.061	1	8270D	4/24/19 16:38	JMV	P9D0401																					
Pentachlorophenol	0.047 U	mg/kg dry	0.40	0.047	1	8270D	4/24/19 16:38	JMV	P9D0401																					
Phenanthrene	0.052 U	mg/kg dry	0.40	0.052	1	8270D	4/24/19 16:38	JMV	P9D0401																					
Phenol	0.059 U	mg/kg dry	0.40	0.059	1	8270D	4/24/19 16:38	JMV	P9D0401																					
Pyrene	0.053 U	mg/kg dry	0.40	0.053	1	8270D	4/24/19 16:38	JMV	P9D0401																					
Pyridine	0.070 U	mg/kg dry	0.40	0.070	1	8270D	4/24/19 16:38	JMV	P9D0401																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Surrogate</th> <th style="width: 30%;">Recovery</th> <th style="width: 40%;">Control Limits</th> </tr> <tr> <td>2,4,6-Tribromophenol</td> <td>90 %</td> <td>39-132</td> </tr> <tr> <td>2-Fluorobiphenyl</td> <td>80 %</td> <td>44-115</td> </tr> <tr> <td>2-Fluorophenol</td> <td>82 %</td> <td>35-115</td> </tr> <tr> <td>Nitrobenzene-d5</td> <td>73 %</td> <td>37-122</td> </tr> <tr> <td>Phenol-d5</td> <td>80 %</td> <td>34-121</td> </tr> <tr> <td>Terphenyl-d14</td> <td>86 %</td> <td>54-127</td> </tr> </table>										Surrogate	Recovery	Control Limits	2,4,6-Tribromophenol	90 %	39-132	2-Fluorobiphenyl	80 %	44-115	2-Fluorophenol	82 %	35-115	Nitrobenzene-d5	73 %	37-122	Phenol-d5	80 %	34-121	Terphenyl-d14	86 %	54-127
Surrogate	Recovery	Control Limits																												
2,4,6-Tribromophenol	90 %	39-132																												
2-Fluorobiphenyl	80 %	44-115																												
2-Fluorophenol	82 %	35-115																												
Nitrobenzene-d5	73 %	37-122																												
Phenol-d5	80 %	34-121																												
Terphenyl-d14	86 %	54-127																												

#### Total Metals

Mercury	0.021 U	mg/kg dry	0.061	0.021	1	7471B	5/1/19 15:06	MMR	P9E0005
<b>Arsenic</b>	<b>4.5</b>	<b>mg/kg dry</b>	<b>1.2</b>	<b>0.16</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 15:13</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Barium</b>	<b>98</b>	<b>mg/kg dry</b>	<b>12</b>	<b>3.7</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 15:13</b>	<b>JAB</b>	<b>P9D0478</b>
Cadmium	0.041 U	mg/kg dry	0.61	0.041	1	6010D	4/26/19 15:13	JAB	P9D0478
<b>Chromium</b>	<b>71</b>	<b>mg/kg dry</b>	<b>1.2</b>	<b>0.092</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 15:13</b>	<b>JAB</b>	<b>P9D0478</b>
<b>Lead</b>	<b>23</b>	<b>mg/kg dry</b>	<b>1.2</b>	<b>0.20</b>	<b>1</b>	<b>6010D</b>	<b>4/26/19 15:13</b>	<b>JAB</b>	<b>P9D0478</b>
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/26/19 15:13	JAB	P9D0478
Silver	0.037 U	mg/kg dry	0.61	0.037	1	6010D	4/26/19 15:13	JAB	P9D0478

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00083 U	mg/kg dry	0.0068	0.00083	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1,1-Trichloroethane	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00049 U	mg/kg dry	0.0068	0.00049	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1,2-Trichloroethane	0.00073 U	mg/kg dry	0.0068	0.00073	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1-Dichloroethane	0.0012 U	mg/kg dry	0.0068	0.0012	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1-Dichloroethylene	0.0012 U	mg/kg dry	0.0068	0.0012	1	8260B	4/26/19 18:38	JLB	P9D0530
1,1-Dichloropropylene	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00097 U	mg/kg dry	0.014	0.00097	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2,3-Trichloropropane	0.00077 U	mg/kg dry	0.0068	0.00077	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00065 U	mg/kg dry	0.014	0.00065	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00072 U	mg/kg dry	0.0068	0.00072	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2-Dibromoethane	0.00061 U	mg/kg dry	0.0068	0.00061	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2-Dichlorobenzene	0.00076 U	mg/kg dry	0.0068	0.00076	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2-Dichloroethane	0.00081 U	mg/kg dry	0.0068	0.00081	1	8260B	4/26/19 18:38	JLB	P9D0530
1,2-Dichloropropane	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 18:38	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00085 U	mg/kg dry	0.0068	0.00085	1	8260B	4/26/19 18:38	JLB	P9D0530
1,3-Dichlorobenzene	0.00084 U	mg/kg dry	0.0068	0.00084	1	8260B	4/26/19 18:38	JLB	P9D0530
1,3-Dichloropropane	0.00057 U	mg/kg dry	0.0068	0.00057	1	8260B	4/26/19 18:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
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Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB6-0-2  
Prism Sample ID: 9040348-09  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:50  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00086 U	mg/kg dry	0.0068	0.00086	1	8260B	4/26/19 18:38	JLB	P9D0530
2,2-Dichloropropane	0.00084 U	mg/kg dry	0.0068	0.00084	1	8260B	4/26/19 18:38	JLB	P9D0530
2-Chlorotoluene	0.00091 U	mg/kg dry	0.0068	0.00091	1	8260B	4/26/19 18:38	JLB	P9D0530
4-Chlorotoluene	0.00077 U	mg/kg dry	0.0068	0.00077	1	8260B	4/26/19 18:38	JLB	P9D0530
4-Isopropyltoluene	0.0017 U	mg/kg dry	0.0068	0.0017	1	8260B	4/26/19 18:38	JLB	P9D0530
<b>Acetone</b>	<b>0.017 J</b>	<b>mg/kg dry</b>	<b>0.027</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 18:38</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
Bromobenzene	0.00094 U	mg/kg dry	0.0068	0.00094	1	8260B	4/26/19 18:38	JLB	P9D0530
Bromochloromethane	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
Bromodichloromethane	0.00064 U	mg/kg dry	0.0068	0.00064	1	8260B	4/26/19 18:38	JLB	P9D0530
Bromoform	0.00052 U	mg/kg dry	0.0068	0.00052	1	8260B	4/26/19 18:38	JLB	P9D0530
Bromomethane	0.0033 U	mg/kg dry	0.014	0.0033	1	8260B	4/26/19 18:38	JLB	P9D0530
Carbon Tetrachloride	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 18:38	JLB	P9D0530
Chlorobenzene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
Chloroethane	0.0013 U	mg/kg dry	0.014	0.0013	1	8260B	4/26/19 18:38	JLB	P9D0530
Chloroform	0.00083 U	mg/kg dry	0.0068	0.00083	1	8260B	4/26/19 18:38	JLB	P9D0530
Chloromethane	0.0021 U	mg/kg dry	0.014	0.0021	1	8260B	4/26/19 18:38	JLB	P9D0530
cis-1,2-Dichloroethylene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00067 U	mg/kg dry	0.0068	0.00067	1	8260B	4/26/19 18:38	JLB	P9D0530
Dibromochloromethane	0.00045 U	mg/kg dry	0.0068	0.00045	1	8260B	4/26/19 18:38	JLB	P9D0530
Dichlorodifluoromethane	0.0019 U	mg/kg dry	0.014	0.0019	1	8260B	4/26/19 18:38	JLB	P9D0530
Ethylbenzene	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 18:38	JLB	P9D0530
Isopropyl Ether	0.0010 U	mg/kg dry	0.0068	0.0010	1	8260B	4/26/19 18:38	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00079 U	mg/kg dry	0.0068	0.00079	1	8260B	4/26/19 18:38	JLB	P9D0530
m,p-Xylenes	0.0017 U	mg/kg dry	0.014	0.0017	1	8260B	4/26/19 18:38	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00047 U	mg/kg dry	0.027	0.00047	1	8260B	4/26/19 18:38	JLB	P9D0530
Methyl Ethyl Ketone (2-Butanone)	0.0016 U	mg/kg dry	0.027	0.0016	1	8260B	4/26/19 18:38	JLB	P9D0530
Methyl Isobutyl Ketone	0.00055 U	mg/kg dry	0.027	0.00055	1	8260B	4/26/19 18:38	JLB	P9D0530
Methylene Chloride	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00095 U	mg/kg dry	0.0068	0.00095	1	8260B	4/26/19 18:38	JLB	P9D0530
Naphthalene	0.00068 U	mg/kg dry	0.014	0.00068	1	8260B	4/26/19 18:38	JLB	P9D0530
n-Butylbenzene	0.00063 U	mg/kg dry	0.0068	0.00063	1	8260B	4/26/19 18:38	JLB	P9D0530
n-Propylbenzene	0.00098 U	mg/kg dry	0.0068	0.00098	1	8260B	4/26/19 18:38	JLB	P9D0530
o-Xylene	0.00072 U	mg/kg dry	0.0068	0.00072	1	8260B	4/26/19 18:38	JLB	P9D0530
sec-Butylbenzene	0.00073 U	mg/kg dry	0.0068	0.00073	1	8260B	4/26/19 18:38	JLB	P9D0530
Styrene	0.00066 U	mg/kg dry	0.0068	0.00066	1	8260B	4/26/19 18:38	JLB	P9D0530
tert-Butylbenzene	0.00081 U	mg/kg dry	0.0068	0.00081	1	8260B	4/26/19 18:38	JLB	P9D0530
Tetrachloroethylene	0.0012 U	mg/kg dry	0.0068	0.0012	1	8260B	4/26/19 18:38	JLB	P9D0530
Toluene	0.0011 U	mg/kg dry	0.0068	0.0011	1	8260B	4/26/19 18:38	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 18:38	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00058 U	mg/kg dry	0.0068	0.00058	1	8260B	4/26/19 18:38	JLB	P9D0530
Trichloroethylene	0.0013 U	mg/kg dry	0.0068	0.0013	1	8260B	4/26/19 18:38	JLB	P9D0530
Trichlorofluoromethane	0.0018 U	mg/kg dry	0.014	0.0018	1	8260B	4/26/19 18:38	JLB	P9D0530
Vinyl acetate	0.00073 U	mg/kg dry	0.014	0.00073	1	8260B	4/26/19 18:38	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB6-0-2  
Prism Sample ID: 9040348-09  
Prism Work Order: 9040348  
Time Collected: 04/18/19 09:50  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl chloride	0.0013 U	mg/kg dry	0.014	0.0013	1	8260B	4/26/19 18:38	JLB	P9D0530
Xylenes, total	0.0024 U	mg/kg dry	0.020	0.0024	1	8260B	4/26/19 18:38	JLB	P9D0530
Surrogate							Recovery	Control Limits	
							4-Bromofluorobenzene 106 %	70-130	
							Dibromofluoromethane 111 %	84-123	
							Toluene-d8 106 %	76-129	

Wood Environ. & Infrastructure Solutions (Ch  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB7-0-2  
Prism Sample ID: 9040348-10  
Prism Work Order: 9040348  
Time Collected: 04/18/19 10:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID									
<b>General Chemistry Parameters</b>																		
% Solids	85.1	% by Weight	0.100	0.100	1	SM2540 G	5/1/19 16:19	KBS	P9E0019									
<b>Organochlorine Pesticides by GC/ECD</b>																		
4,4'-DDD	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/25/19 12:43	ZRC	P9D0422									
4,4'-DDE	0.0024 U	mg/kg dry	0.0059	0.0024	1	8081B	4/25/19 12:43	ZRC	P9D0422									
4,4'-DDT	0.0018 U	mg/kg dry	0.0059	0.0018	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Aldrin	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/25/19 12:43	ZRC	P9D0422									
alpha-BHC	0.0014 U	mg/kg dry	0.0059	0.0014	1	8081B	4/25/19 12:43	ZRC	P9D0422									
cis-Chlordane	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/25/19 12:43	ZRC	P9D0422									
beta-BHC	0.0023 U	mg/kg dry	0.0059	0.0023	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Chlordane	0.011 U	mg/kg dry	0.059	0.011	1	8081B	4/25/19 12:43	ZRC	P9D0422									
delta-BHC	0.0015 U	mg/kg dry	0.0059	0.0015	1	8081B	4/25/19 12:43	ZRC	P9D0422									
<b>Dieldrin</b>	<b>0.089</b>	mg/kg dry	<b>0.0059</b>	<b>0.0025</b>	1	<b>8081B</b>	<b>4/25/19 12:43</b>	<b>ZRC</b>	<b>P9D0422</b>									
Endosulfan I	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Endosulfan II	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Endosulfan Sulfate	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Endrin	0.0023 U	mg/kg dry	0.0059	0.0023	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Endrin Aldehyde	0.0025 U	mg/kg dry	0.0059	0.0025	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Endrin Ketone	0.0022 U	mg/kg dry	0.0059	0.0022	1	8081B	4/25/19 12:43	ZRC	P9D0422									
gamma-BHC	0.0015 U	mg/kg dry	0.0059	0.0015	1	8081B	4/25/19 12:43	ZRC	P9D0422									
trans-Chlordane	0.0020 U	mg/kg dry	0.0059	0.0020	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Heptachlor	0.0016 U	mg/kg dry	0.0059	0.0016	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Heptachlor Epoxide	0.0021 U	mg/kg dry	0.0059	0.0021	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Methoxychlor	0.0031 U	mg/kg dry	0.0059	0.0031	1	8081B	4/25/19 12:43	ZRC	P9D0422									
Toxaphene	0.012 U	mg/kg dry	0.059	0.012	1	8081B	4/25/19 12:43	ZRC	P9D0422									
<table border="0"> <tr> <th style="width: 33%;">Surrogate</th> <th style="width: 33%;">Recovery</th> <th style="width: 33%;">Control Limits</th> </tr> <tr> <td>Decachlorobiphenyl</td> <td>64 %</td> <td>26-204</td> </tr> <tr> <td>Tetrachloro-m-xylene</td> <td>57 %</td> <td>40-162</td> </tr> </table>										Surrogate	Recovery	Control Limits	Decachlorobiphenyl	64 %	26-204	Tetrachloro-m-xylene	57 %	40-162
Surrogate	Recovery	Control Limits																
Decachlorobiphenyl	64 %	26-204																
Tetrachloro-m-xylene	57 %	40-162																
<b>Semivolatile Organic Compounds by GC/MS</b>																		
1,2,4-Trichlorobenzene	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 18:51	JMV	P9D0401									
1,2-Dichlorobenzene	0.059 U	mg/kg dry	0.39	0.059	1	8270D	4/24/19 18:51	JMV	P9D0401									
1,3-Dichlorobenzene	0.054 U	mg/kg dry	0.39	0.054	1	8270D	4/24/19 18:51	JMV	P9D0401									
1,4-Dichlorobenzene	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 18:51	JMV	P9D0401									
1-Methylnaphthalene	0.075 U	mg/kg dry	0.39	0.075	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4,5-Trichlorophenol	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4,6-Trichlorophenol	0.073 U	mg/kg dry	0.39	0.073	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4-Dichlorophenol	0.075 U	mg/kg dry	0.39	0.075	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4-Dimethylphenol	0.059 U	mg/kg dry	0.39	0.059	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4-Dinitrophenol	0.054 U	mg/kg dry	0.39	0.054	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,4-Dinitrotoluene	0.047 U	mg/kg dry	0.39	0.047	1	8270D	4/24/19 18:51	JMV	P9D0401									
2,6-Dinitrotoluene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401									
2-Chloronaphthalene	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 18:51	JMV	P9D0401									

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB7-0-2  
Prism Sample ID: 9040348-10  
Prism Work Order: 9040348  
Time Collected: 04/18/19 10:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
2-Chlorophenol	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 18:51	JMV	P9D0401
2-Methylnaphthalene	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 18:51	JMV	P9D0401
2-Methylphenol	0.050 U	mg/kg dry	0.39	0.050	1	8270D	4/24/19 18:51	JMV	P9D0401
2-Nitrophenol	0.070 U	mg/kg dry	0.39	0.070	1	8270D	4/24/19 18:51	JMV	P9D0401
3,3'-Dichlorobenzidine	0.076 U	mg/kg dry	0.39	0.076	1	8270D	4/24/19 18:51	JMV	P9D0401
3/4-Methylphenol	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 18:51	JMV	P9D0401
4,6-Dinitro-2-methylphenol	0.058 U	mg/kg dry	0.39	0.058	1	8270D	4/24/19 18:51	JMV	P9D0401
4-Bromophenyl phenyl ether	0.066 U	mg/kg dry	0.39	0.066	1	8270D	4/24/19 18:51	JMV	P9D0401
4-Chloro-3-methylphenol	0.054 U	mg/kg dry	0.39	0.054	1	8270D	4/24/19 18:51	JMV	P9D0401
4-Chloroaniline	0.047 U	mg/kg dry	0.39	0.047	1	8270D	4/24/19 18:51	JMV	P9D0401
4-Chlorophenyl phenyl ether	0.050 U	mg/kg dry	0.39	0.050	1	8270D	4/24/19 18:51	JMV	P9D0401
4-Nitrophenol	0.060 U	mg/kg dry	0.39	0.060	1	8270D	4/24/19 18:51	JMV	P9D0401
Acenaphthene	0.053 U	mg/kg dry	0.39	0.053	1	8270D	4/24/19 18:51	JMV	P9D0401
Acenaphthylene	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 18:51	JMV	P9D0401
Anthracene	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 18:51	JMV	P9D0401
Azobenzene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzo(a)anthracene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzo(a)pyrene	0.042 U	mg/kg dry	0.39	0.042	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzo(b)fluoranthene	0.045 U	mg/kg dry	0.39	0.045	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzo(g,h,i)perylene	0.042 U	mg/kg dry	0.39	0.042	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzo(k)fluoranthene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzoic Acid	0.033 U	mg/kg dry	0.39	0.033	1	8270D	4/24/19 18:51	JMV	P9D0401
Benzyl alcohol	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
bis(2-Chloroethoxy)methane	0.067 U	mg/kg dry	0.39	0.067	1	8270D	4/24/19 18:51	JMV	P9D0401
Bis(2-Chloroethyl)ether	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 18:51	JMV	P9D0401
Bis(2-chloroisopropyl)ether	0.066 U	mg/kg dry	0.39	0.066	1	8270D	4/24/19 18:51	JMV	P9D0401
Bis(2-Ethylhexyl)phthalate	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 18:51	JMV	P9D0401
Butyl benzyl phthalate	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 18:51	JMV	P9D0401
Chrysene	0.049 U	mg/kg dry	0.39	0.049	1	8270D	4/24/19 18:51	JMV	P9D0401
Dibenzo(a,h)anthracene	0.047 U	mg/kg dry	0.39	0.047	1	8270D	4/24/19 18:51	JMV	P9D0401
Dibenzofuran	0.059 U	mg/kg dry	0.39	0.059	1	8270D	4/24/19 18:51	JMV	P9D0401
Diethyl phthalate	0.053 U	mg/kg dry	0.39	0.053	1	8270D	4/24/19 18:51	JMV	P9D0401
Dimethyl phthalate	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
Di-n-butyl phthalate	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 18:51	JMV	P9D0401
Di-n-octyl phthalate	0.048 U	mg/kg dry	0.39	0.048	1	8270D	4/24/19 18:51	JMV	P9D0401
Fluoranthene	0.049 U	mg/kg dry	0.39	0.049	1	8270D	4/24/19 18:51	JMV	P9D0401
Fluorene	0.056 U	mg/kg dry	0.39	0.056	1	8270D	4/24/19 18:51	JMV	P9D0401
Hexachlorobenzene	0.061 U	mg/kg dry	0.39	0.061	1	8270D	4/24/19 18:51	JMV	P9D0401
Hexachlorobutadiene	0.069 U	mg/kg dry	0.39	0.069	1	8270D	4/24/19 18:51	JMV	P9D0401
Hexachlorocyclopentadiene	0.069 U	mg/kg dry	0.39	0.069	1	8270D	4/24/19 18:51	JMV	P9D0401
Hexachloroethane	0.065 U	mg/kg dry	0.39	0.065	1	8270D	4/24/19 18:51	JMV	P9D0401
Indeno(1,2,3-cd)pyrene	0.044 U	mg/kg dry	0.39	0.044	1	8270D	4/24/19 18:51	JMV	P9D0401
Isophorone	0.052 U	mg/kg dry	0.39	0.052	1	8270D	4/24/19 18:51	JMV	P9D0401
Naphthalene	0.062 U	mg/kg dry	0.39	0.062	1	8270D	4/24/19 18:51	JMV	P9D0401

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB7-0-2  
Prism Sample ID: 9040348-10  
Prism Work Order: 9040348  
Time Collected: 04/18/19 10:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Nitrobenzene	0.055 U	mg/kg dry	0.39	0.055	1	8270D	4/24/19 18:51	JMV	P9D0401
N-Nitroso-di-n-propylamine	0.061 U	mg/kg dry	0.39	0.061	1	8270D	4/24/19 18:51	JMV	P9D0401
N-Nitrosodiphenylamine	0.059 U	mg/kg dry	0.39	0.059	1	8270D	4/24/19 18:51	JMV	P9D0401
Pentachlorophenol	0.046 U	mg/kg dry	0.39	0.046	1	8270D	4/24/19 18:51	JMV	P9D0401
Phenanthrene	0.050 U	mg/kg dry	0.39	0.050	1	8270D	4/24/19 18:51	JMV	P9D0401
Phenol	0.057 U	mg/kg dry	0.39	0.057	1	8270D	4/24/19 18:51	JMV	P9D0401
Pyrene	0.051 U	mg/kg dry	0.39	0.051	1	8270D	4/24/19 18:51	JMV	P9D0401
Pyridine	0.067 U	mg/kg dry	0.39	0.067	1	8270D	4/24/19 18:51	JMV	P9D0401
Surrogate						Recovery		Control Limits	
						2,4,6-Tribromophenol	83 %	39-132	
						2-Fluorobiphenyl	78 %	44-115	
						2-Fluorophenol	74 %	35-115	
						Nitrobenzene-d5	68 %	37-122	
						Phenol-d5	72 %	34-121	
						Terphenyl-d14	80 %	54-127	

#### Total Metals

Mercury	0.030 J	mg/kg dry	0.059	0.020	1	7471B	5/1/19 14:52	MMR	P9E0005
Arsenic	5.0	mg/kg dry	1.2	0.16	1	6010D	4/26/19 15:21	JAB	P9D0478
Barium	49	mg/kg dry	12	3.5	1	6010D	4/26/19 15:21	JAB	P9D0478
Cadmium	0.18 J	mg/kg dry	0.59	0.040	1	6010D	4/26/19 15:21	JAB	P9D0478
Chromium	46	mg/kg dry	1.2	0.089	1	6010D	4/26/19 15:21	JAB	P9D0478
Lead	16	mg/kg dry	1.2	0.20	1	6010D	4/26/19 15:21	JAB	P9D0478
Selenium	0.32 U	mg/kg dry	1.2	0.32	1	6010D	4/26/19 15:21	JAB	P9D0478
Silver	0.036 U	mg/kg dry	0.59	0.036	1	6010D	4/26/19 15:21	JAB	P9D0478

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	0.00081 U	mg/kg dry	0.0066	0.00081	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1,1-Trichloroethane	0.00097 U	mg/kg dry	0.0066	0.00097	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1,2,2-Tetrachloroethane	0.00048 U	mg/kg dry	0.0066	0.00048	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1,2-Trichloroethane	0.00071 U	mg/kg dry	0.0066	0.00071	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1-Dichloroethane	0.0012 U	mg/kg dry	0.0066	0.0012	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1-Dichloroethylene	0.0012 U	mg/kg dry	0.0066	0.0012	1	8260B	4/26/19 19:08	JLB	P9D0530
1,1-Dichloropropylene	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2,3-Trichlorobenzene	0.00095 U	mg/kg dry	0.013	0.00095	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2,3-Trichloropropane	0.00075 U	mg/kg dry	0.0066	0.00075	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2,4-Trichlorobenzene	0.00063 U	mg/kg dry	0.013	0.00063	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2,4-Trimethylbenzene	0.00070 U	mg/kg dry	0.0066	0.00070	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2-Dibromoethane	0.00059 U	mg/kg dry	0.0066	0.00059	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2-Dichlorobenzene	0.00074 U	mg/kg dry	0.0066	0.00074	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2-Dichloroethane	0.00079 U	mg/kg dry	0.0066	0.00079	1	8260B	4/26/19 19:08	JLB	P9D0530
1,2-Dichloropropane	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
1,3,5-Trimethylbenzene	0.00083 U	mg/kg dry	0.0066	0.00083	1	8260B	4/26/19 19:08	JLB	P9D0530
1,3-Dichlorobenzene	0.00082 U	mg/kg dry	0.0066	0.00082	1	8260B	4/26/19 19:08	JLB	P9D0530
1,3-Dichloropropane	0.00055 U	mg/kg dry	0.0066	0.00055	1	8260B	4/26/19 19:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB7-0-2  
Prism Sample ID: 9040348-10  
Prism Work Order: 9040348  
Time Collected: 04/18/19 10:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,4-Dichlorobenzene	0.00084 U	mg/kg dry	0.0066	0.00084	1	8260B	4/26/19 19:08	JLB	P9D0530
2,2-Dichloropropane	0.00082 U	mg/kg dry	0.0066	0.00082	1	8260B	4/26/19 19:08	JLB	P9D0530
2-Chlorotoluene	0.00089 U	mg/kg dry	0.0066	0.00089	1	8260B	4/26/19 19:08	JLB	P9D0530
4-Chlorotoluene	0.00075 U	mg/kg dry	0.0066	0.00075	1	8260B	4/26/19 19:08	JLB	P9D0530
4-Isopropyltoluene	0.0017 U	mg/kg dry	0.0066	0.0017	1	8260B	4/26/19 19:08	JLB	P9D0530
<b>Acetone</b>	<b>0.093</b>	<b>mg/kg dry</b>	<b>0.026</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 19:08</b>	<b>JLB</b>	<b>P9D0530</b>
Benzene	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
Bromobenzene	0.00092 U	mg/kg dry	0.0066	0.00092	1	8260B	4/26/19 19:08	JLB	P9D0530
Bromochloromethane	0.0011 U	mg/kg dry	0.0066	0.0011	1	8260B	4/26/19 19:08	JLB	P9D0530
Bromodichloromethane	0.00063 U	mg/kg dry	0.0066	0.00063	1	8260B	4/26/19 19:08	JLB	P9D0530
Bromoform	0.00051 U	mg/kg dry	0.0066	0.00051	1	8260B	4/26/19 19:08	JLB	P9D0530
Bromomethane	0.0032 U	mg/kg dry	0.013	0.0032	1	8260B	4/26/19 19:08	JLB	P9D0530
Carbon Tetrachloride	0.0013 U	mg/kg dry	0.0066	0.0013	1	8260B	4/26/19 19:08	JLB	P9D0530
Chlorobenzene	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
Chloroethane	0.0013 U	mg/kg dry	0.013	0.0013	1	8260B	4/26/19 19:08	JLB	P9D0530
Chloroform	0.00081 U	mg/kg dry	0.0066	0.00081	1	8260B	4/26/19 19:08	JLB	P9D0530
Chloromethane	0.0020 U	mg/kg dry	0.013	0.0020	1	8260B	4/26/19 19:08	JLB	P9D0530
cis-1,2-Dichloroethylene	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
cis-1,3-Dichloropropylene	0.00065 U	mg/kg dry	0.0066	0.00065	1	8260B	4/26/19 19:08	JLB	P9D0530
Dibromochloromethane	0.00044 U	mg/kg dry	0.0066	0.00044	1	8260B	4/26/19 19:08	JLB	P9D0530
Dichlorodifluoromethane	0.0019 U	mg/kg dry	0.013	0.0019	1	8260B	4/26/19 19:08	JLB	P9D0530
Ethylbenzene	0.0010 U	mg/kg dry	0.0066	0.0010	1	8260B	4/26/19 19:08	JLB	P9D0530
Isopropyl Ether	0.00097 U	mg/kg dry	0.0066	0.00097	1	8260B	4/26/19 19:08	JLB	P9D0530
Isopropylbenzene (Cumene)	0.00077 U	mg/kg dry	0.0066	0.00077	1	8260B	4/26/19 19:08	JLB	P9D0530
m,p-Xylenes	0.0017 U	mg/kg dry	0.013	0.0017	1	8260B	4/26/19 19:08	JLB	P9D0530
Methyl Butyl Ketone (2-Hexanone)	0.00046 U	mg/kg dry	0.026	0.00046	1	8260B	4/26/19 19:08	JLB	P9D0530
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.0051 J</b>	<b>mg/kg dry</b>	<b>0.026</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>4/26/19 19:08</b>	<b>JLB</b>	<b>P9D0530</b>
Methyl Isobutyl Ketone	0.00054 U	mg/kg dry	0.026	0.00054	1	8260B	4/26/19 19:08	JLB	P9D0530
Methylene Chloride	0.0011 U	mg/kg dry	0.0066	0.0011	1	8260B	4/26/19 19:08	JLB	P9D0530
Methyl-tert-Butyl Ether	0.00093 U	mg/kg dry	0.0066	0.00093	1	8260B	4/26/19 19:08	JLB	P9D0530
Naphthalene	0.00067 U	mg/kg dry	0.013	0.00067	1	8260B	4/26/19 19:08	JLB	P9D0530
n-Butylbenzene	0.00062 U	mg/kg dry	0.0066	0.00062	1	8260B	4/26/19 19:08	JLB	P9D0530
n-Propylbenzene	0.00096 U	mg/kg dry	0.0066	0.00096	1	8260B	4/26/19 19:08	JLB	P9D0530
o-Xylene	0.00070 U	mg/kg dry	0.0066	0.00070	1	8260B	4/26/19 19:08	JLB	P9D0530
sec-Butylbenzene	0.00071 U	mg/kg dry	0.0066	0.00071	1	8260B	4/26/19 19:08	JLB	P9D0530
Styrene	0.00064 U	mg/kg dry	0.0066	0.00064	1	8260B	4/26/19 19:08	JLB	P9D0530
tert-Butylbenzene	0.00079 U	mg/kg dry	0.0066	0.00079	1	8260B	4/26/19 19:08	JLB	P9D0530
Tetrachloroethylene	0.0012 U	mg/kg dry	0.0066	0.0012	1	8260B	4/26/19 19:08	JLB	P9D0530
Toluene	0.0011 U	mg/kg dry	0.0066	0.0011	1	8260B	4/26/19 19:08	JLB	P9D0530
trans-1,2-Dichloroethylene	0.0013 U	mg/kg dry	0.0066	0.0013	1	8260B	4/26/19 19:08	JLB	P9D0530
trans-1,3-Dichloropropylene	0.00057 U	mg/kg dry	0.0066	0.00057	1	8260B	4/26/19 19:08	JLB	P9D0530
Trichloroethylene	0.0013 U	mg/kg dry	0.0066	0.0013	1	8260B	4/26/19 19:08	JLB	P9D0530
Trichlorofluoromethane	0.0018 U	mg/kg dry	0.013	0.0018	1	8260B	4/26/19 19:08	JLB	P9D0530

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 623  
Sample Matrix: Solid

Client Sample ID: P623-SB7-0-2  
Prism Sample ID: 9040348-10  
Prism Work Order: 9040348  
Time Collected: 04/18/19 10:00  
Time Submitted: 04/22/19 09:30

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Vinyl acetate	0.00072 U	mg/kg dry	0.013	0.00072	1	8260B	4/26/19 19:08	JLB	P9D0530
Vinyl chloride	0.0013 U	mg/kg dry	0.013	0.0013	1	8260B	4/26/19 19:08	JLB	P9D0530
Xylenes, total	0.0024 U	mg/kg dry	0.020	0.0024	1	8260B	4/26/19 19:08	JLB	P9D0530
Surrogate							Recovery	Control Limits	
							108 %	70-130	
							112 %	84-123	
							106 %	76-129	

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No: 1883R2707 Parcel  
623

Prism Work Order: 9040348  
Time Submitted: 4/22/2019 9:30:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P9D0530 - 5035

##### Blank (P9D0530-BLK1)

Prepared & Analyzed: 04/26/19

1,1,1,2-Tetrachloroethane	BRL	0.0050	mg/kg wet
1,1,1-Trichloroethane	BRL	0.0050	mg/kg wet
1,1,2,2-Tetrachloroethane	BRL	0.0050	mg/kg wet
1,1,2-Trichloroethane	BRL	0.0050	mg/kg wet
1,1-Dichloroethane	BRL	0.0050	mg/kg wet
1,1-Dichloroethylene	BRL	0.0050	mg/kg wet
1,1-Dichloropropylene	BRL	0.0050	mg/kg wet
1,2,3-Trichlorobenzene	BRL	0.010	mg/kg wet
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet
1,2,4-Trichlorobenzene	BRL	0.010	mg/kg wet
1,2,4-Trimethylbenzene	BRL	0.0050	mg/kg wet
1,2-Dibromoethane	BRL	0.0050	mg/kg wet
1,2-Dichlorobenzene	BRL	0.0050	mg/kg wet
1,2-Dichloroethane	BRL	0.0050	mg/kg wet
1,2-Dichloropropane	BRL	0.0050	mg/kg wet
1,3,5-Trimethylbenzene	BRL	0.0050	mg/kg wet
1,3-Dichlorobenzene	BRL	0.0050	mg/kg wet
1,3-Dichloropropane	BRL	0.0050	mg/kg wet
1,4-Dichlorobenzene	BRL	0.0050	mg/kg wet
2,2-Dichloropropane	BRL	0.0050	mg/kg wet
2-Chlorotoluene	BRL	0.0050	mg/kg wet
4-Chlorotoluene	BRL	0.0050	mg/kg wet
4-Isopropyltoluene	BRL	0.0050	mg/kg wet
Acetone	BRL	0.020	mg/kg wet
Benzene	BRL	0.0050	mg/kg wet
Bromobenzene	BRL	0.0050	mg/kg wet
Bromochloromethane	BRL	0.0050	mg/kg wet
Bromodichloromethane	BRL	0.0050	mg/kg wet
Bromoform	BRL	0.0050	mg/kg wet
Bromomethane	BRL	0.010	mg/kg wet
Carbon Tetrachloride	BRL	0.0050	mg/kg wet
Chlorobenzene	BRL	0.0050	mg/kg wet
Chloroethane	BRL	0.010	mg/kg wet
Chloroform	BRL	0.0050	mg/kg wet
Chloromethane	BRL	0.010	mg/kg wet
cis-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet
cis-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet
Dibromochloromethane	BRL	0.0050	mg/kg wet
Dichlorodifluoromethane	BRL	0.010	mg/kg wet
Ethylbenzene	BRL	0.0050	mg/kg wet
Isopropyl Ether	BRL	0.0050	mg/kg wet
Isopropylbenzene (Cumene)	BRL	0.0050	mg/kg wet
m,p-Xylenes	BRL	0.010	mg/kg wet
Methyl Butyl Ketone (2-Hexanone)	BRL	0.020	mg/kg wet
Methyl Ethyl Ketone (2-Butanone)	BRL	0.020	mg/kg wet
Methyl Isobutyl Ketone	BRL	0.020	mg/kg wet

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0530 - 5035**
**Blank (P9D0530-BLK1)**

Prepared &amp; Analyzed: 04/26/19

Methylene Chloride	BRL	0.0050	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.0050	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
n-Butylbenzene	BRL	0.0050	mg/kg wet							
n-Propylbenzene	BRL	0.0050	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
sec-Butylbenzene	BRL	0.0050	mg/kg wet							
Styrene	BRL	0.0050	mg/kg wet							
tert-Butylbenzene	BRL	0.0050	mg/kg wet							
Tetrachloroethylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
trans-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
trans-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Trichloroethylene	BRL	0.0050	mg/kg wet							
Trichlorofluoromethane	BRL	0.010	mg/kg wet							
Vinyl acetate	BRL	0.010	mg/kg wet							
Vinyl chloride	BRL	0.010	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	53.8		ug/L	50.00		108	70-130			
Surrogate: Dibromofluoromethane	54.0		ug/L	50.00		108	84-123			
Surrogate: Toluene-d8	53.2		ug/L	50.00		106	76-129			

**LCS (P9D0530-BS1)**

Prepared &amp; Analyzed: 04/26/19

1,1,1,2-Tetrachloroethane	0.0503	0.0050	mg/kg wet	0.05000		101	72-115			
1,1,1-Trichloroethane	0.0434	0.0050	mg/kg wet	0.05000		87	67-131			
1,1,2,2-Tetrachloroethane	0.0576	0.0050	mg/kg wet	0.05000		115	56-126			
1,1,2-Trichloroethane	0.0474	0.0050	mg/kg wet	0.05000		95	70-133			
1,1-Dichloroethane	0.0453	0.0050	mg/kg wet	0.05000		91	74-127			
1,1-Dichloroethylene	0.0442	0.0050	mg/kg wet	0.05000		88	67-149			
1,1-Dichloropropylene	0.0456	0.0050	mg/kg wet	0.05000		91	71-130			
1,2,3-Trichlorobenzene	0.0585	0.010	mg/kg wet	0.05000		117	68-130			
1,2,3-Trichloropropane	0.0583	0.0050	mg/kg wet	0.05000		117	60-137			
1,2,4-Trichlorobenzene	0.0578	0.010	mg/kg wet	0.05000		116	66-125			
1,2,4-Trimethylbenzene	0.0582	0.0050	mg/kg wet	0.05000		116	69-129			
1,2-Dibromoethane	0.0480	0.0050	mg/kg wet	0.05000		96	70-132			
1,2-Dichlorobenzene	0.0560	0.0050	mg/kg wet	0.05000		112	72-123			
1,2-Dichloroethane	0.0430	0.0050	mg/kg wet	0.05000		86	68-128			
1,2-Dichloropropane	0.0457	0.0050	mg/kg wet	0.05000		91	73-130			
1,3,5-Trimethylbenzene	0.0581	0.0050	mg/kg wet	0.05000		116	69-128			
1,3-Dichlorobenzene	0.0557	0.0050	mg/kg wet	0.05000		111	71-120			
1,3-Dichloropropane	0.0483	0.0050	mg/kg wet	0.05000		97	75-124			
1,4-Dichlorobenzene	0.0556	0.0050	mg/kg wet	0.05000		111	71-123			
2,2-Dichloropropane	0.0452	0.0050	mg/kg wet	0.05000		90	50-142			
2-Chlorotoluene	0.0562	0.0050	mg/kg wet	0.05000		112	67-124			
4-Chlorotoluene	0.0561	0.0050	mg/kg wet	0.05000		112	71-126			
4-Isopropyltoluene	0.0577	0.0050	mg/kg wet	0.05000		115	68-129			
Acetone	0.104	0.020	mg/kg wet	0.1000		104	29-198			

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0530 - 5035</b>										
<b>LCS (P9D0530-BS1)</b>										
Prepared & Analyzed: 04/26/19										
Benzene	0.0442	0.0050	mg/kg wet	0.05000	88	74-127				
Bromobenzene	0.0574	0.0050	mg/kg wet	0.05000	115	73-125				
Bromochloromethane	0.0444	0.0050	mg/kg wet	0.05000	89	72-134				
Bromodichloromethane	0.0434	0.0050	mg/kg wet	0.05000	87	75-122				
Bromoform	0.0472	0.0050	mg/kg wet	0.05000	94	66-135				
Bromomethane	0.0478	0.010	mg/kg wet	0.05000	96	20-180				
Carbon Tetrachloride	0.0441	0.0050	mg/kg wet	0.05000	88	64-143				
Chlorobenzene	0.0460	0.0050	mg/kg wet	0.05000	92	74-118				
Chloroethane	0.0621	0.010	mg/kg wet	0.05000	124	33-149				
Chloroform	0.0442	0.0050	mg/kg wet	0.05000	88	73-127				
Chloromethane	0.0400	0.010	mg/kg wet	0.05000	80	45-143				
cis-1,2-Dichloroethylene	0.0439	0.0050	mg/kg wet	0.05000	88	76-134				
cis-1,3-Dichloropropylene	0.0462	0.0050	mg/kg wet	0.05000	92	71-125				
Dibromochloromethane	0.0463	0.0050	mg/kg wet	0.05000	93	73-122				
Dichlorodifluoromethane	0.0361	0.010	mg/kg wet	0.05000	72	26-146				
Ethylbenzene	0.0479	0.0050	mg/kg wet	0.05000	96	74-128				
Isopropyl Ether	0.0432	0.0050	mg/kg wet	0.05000	86	59-159				
Isopropylbenzene (Cumene)	0.0587	0.0050	mg/kg wet	0.05000	117	68-126				
m,p-Xylenes	0.0956	0.010	mg/kg wet	0.1000	96	75-124				
Methyl Butyl Ketone (2-Hexanone)	0.0498	0.020	mg/kg wet	0.05000	100	61-157				
Methyl Ethyl Ketone (2-Butanone)	0.0504	0.020	mg/kg wet	0.05000	101	63-149				
Methyl Isobutyl Ketone	0.0460	0.020	mg/kg wet	0.05000	92	57-162				
Methylene Chloride	0.0393	0.0050	mg/kg wet	0.05000	79	74-129				
Methyl-tert-Butyl Ether	0.0457	0.0050	mg/kg wet	0.05000	91	70-130				
Naphthalene	0.0569	0.010	mg/kg wet	0.05000	114	57-157				
n-Butylbenzene	0.0595	0.0050	mg/kg wet	0.05000	119	65-135				
n-Propylbenzene	0.0578	0.0050	mg/kg wet	0.05000	116	67-130				
o-Xylene	0.0481	0.0050	mg/kg wet	0.05000	96	74-126				
sec-Butylbenzene	0.0583	0.0050	mg/kg wet	0.05000	117	66-131				
Styrene	0.0471	0.0050	mg/kg wet	0.05000	94	77-121				
tert-Butylbenzene	0.0580	0.0050	mg/kg wet	0.05000	116	67-132				
Tetrachloroethylene	0.0457	0.0050	mg/kg wet	0.05000	91	68-130				
Toluene	0.0445	0.0050	mg/kg wet	0.05000	89	71-129				
trans-1,2-Dichloroethylene	0.0441	0.0050	mg/kg wet	0.05000	88	73-132				
trans-1,3-Dichloropropylene	0.0460	0.0050	mg/kg wet	0.05000	92	68-123				
Trichloroethylene	0.0440	0.0050	mg/kg wet	0.05000	88	75-133				
Trichlorofluoromethane	0.0401	0.010	mg/kg wet	0.05000	80	44-146				
Vinyl acetate	0.0455	0.010	mg/kg wet	0.05000	91	85-161				
Vinyl chloride	0.0384	0.010	mg/kg wet	0.05000	77	48-147				
Xylenes, total	0.144	0.015	mg/kg wet	0.1500	96	74-126				
Surrogate: 4-Bromofluorobenzene	53.1		ug/L	50.00	106	70-130				
Surrogate: Dibromofluoromethane	51.1		ug/L	50.00	102	84-123				
Surrogate: Toluene-d8	53.8		ug/L	50.00	108	76-129				

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0530 - 5035</b>										
<b>LCS Dup (P9D0530-BSD1)</b>										
Prepared & Analyzed: 04/26/19										
1,1,1,2-Tetrachloroethane	0.0497	0.0050	mg/kg wet	0.05000	99	72-115	1	20		
1,1,1-Trichloroethane	0.0421	0.0050	mg/kg wet	0.05000	84	67-131	3	20		
1,1,2,2-Tetrachloroethane	0.0593	0.0050	mg/kg wet	0.05000	119	56-126	3	20		
1,1,2-Trichloroethane	0.0468	0.0050	mg/kg wet	0.05000	94	70-133	1	20		
1,1-Dichloroethane	0.0437	0.0050	mg/kg wet	0.05000	87	74-127	4	20		
1,1-Dichloroethylene	0.0425	0.0050	mg/kg wet	0.05000	85	67-149	4	20		
1,1-Dichloropropylene	0.0435	0.0050	mg/kg wet	0.05000	87	71-130	5	20		
1,2,3-Trichlorobenzene	0.0578	0.010	mg/kg wet	0.05000	116	68-130	1	20		
1,2,3-Trichloropropane	0.0596	0.0050	mg/kg wet	0.05000	119	60-137	2	20		
1,2,4-Trichlorobenzene	0.0564	0.010	mg/kg wet	0.05000	113	66-125	3	20		
1,2,4-Trimethylbenzene	0.0576	0.0050	mg/kg wet	0.05000	115	69-129	1	20		
1,2-Dibromoethane	0.0476	0.0050	mg/kg wet	0.05000	95	70-132	0.8	20		
1,2-Dichlorobenzene	0.0556	0.0050	mg/kg wet	0.05000	111	72-123	0.7	20		
1,2-Dichloroethane	0.0428	0.0050	mg/kg wet	0.05000	86	68-128	0.4	20		
1,2-Dichloropropane	0.0451	0.0050	mg/kg wet	0.05000	90	73-130	1	20		
1,3,5-Trimethylbenzene	0.0572	0.0050	mg/kg wet	0.05000	114	69-128	1	20		
1,3-Dichlorobenzene	0.0549	0.0050	mg/kg wet	0.05000	110	71-120	2	20		
1,3-Dichloropropane	0.0480	0.0050	mg/kg wet	0.05000	96	75-124	0.6	20		
1,4-Dichlorobenzene	0.0552	0.0050	mg/kg wet	0.05000	110	71-123	0.6	20		
2,2-Dichloropropane	0.0432	0.0050	mg/kg wet	0.05000	86	50-142	4	20		
2-Chlorotoluene	0.0555	0.0050	mg/kg wet	0.05000	111	67-124	1	20		
4-Chlorotoluene	0.0558	0.0050	mg/kg wet	0.05000	112	71-126	0.5	20		
4-Isopropyltoluene	0.0569	0.0050	mg/kg wet	0.05000	114	68-129	1	20		
Acetone	0.105	0.020	mg/kg wet	0.1000	105	29-198	1	20		
Benzene	0.0430	0.0050	mg/kg wet	0.05000	86	74-127	3	20		
Bromobenzene	0.0570	0.0050	mg/kg wet	0.05000	114	73-125	0.6	20		
Bromochloromethane	0.0437	0.0050	mg/kg wet	0.05000	87	72-134	2	20		
Bromodichloromethane	0.0432	0.0050	mg/kg wet	0.05000	86	75-122	0.6	20		
Bromoform	0.0468	0.0050	mg/kg wet	0.05000	94	66-135	1	20		
Bromomethane	0.0454	0.010	mg/kg wet	0.05000	91	20-180	5	20		
Carbon Tetrachloride	0.0429	0.0050	mg/kg wet	0.05000	86	64-143	3	20		
Chlorobenzene	0.0448	0.0050	mg/kg wet	0.05000	90	74-118	3	20		
Chloroethane	0.0603	0.010	mg/kg wet	0.05000	121	33-149	3	20		
Chloroform	0.0429	0.0050	mg/kg wet	0.05000	86	73-127	3	20		
Chloromethane	0.0388	0.010	mg/kg wet	0.05000	78	45-143	3	20		
cis-1,2-Dichloroethylene	0.0435	0.0050	mg/kg wet	0.05000	87	76-134	0.8	20		
cis-1,3-Dichloropropylene	0.0457	0.0050	mg/kg wet	0.05000	91	71-125	1	20		
Dibromochloromethane	0.0463	0.0050	mg/kg wet	0.05000	93	73-122	0.09	20		
Dichlorodifluoromethane	0.0343	0.010	mg/kg wet	0.05000	69	26-146	5	20		
Ethylbenzene	0.0460	0.0050	mg/kg wet	0.05000	92	74-128	4	20		
Isopropyl Ether	0.0426	0.0050	mg/kg wet	0.05000	85	59-159	1	20		
Isopropylbenzene (Cumene)	0.0572	0.0050	mg/kg wet	0.05000	114	68-126	2	20		
m,p-Xylenes	0.0921	0.010	mg/kg wet	0.1000	92	75-124	4	20		
Methyl Butyl Ketone (2-Hexanone)	0.0513	0.020	mg/kg wet	0.05000	103	61-157	3	20		
Methyl Ethyl Ketone (2-Butanone)	0.0513	0.020	mg/kg wet	0.05000	103	63-149	2	20		
Methyl Isobutyl Ketone	0.0469	0.020	mg/kg wet	0.05000	94	57-162	2	20		

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0530 - 5035</b>										
<b>LCS Dup (P9D0530-BSD1)</b>										
Prepared & Analyzed: 04/26/19										
Methylene Chloride	0.0392	0.0050	mg/kg wet	0.05000	78	74-129	0.1	20		
Methyl-tert-Butyl Ether	0.0457	0.0050	mg/kg wet	0.05000	91	70-130	0.02	20		
Naphthalene	0.0577	0.010	mg/kg wet	0.05000	115	57-157	1	20		
n-Butylbenzene	0.0579	0.0050	mg/kg wet	0.05000	116	65-135	3	20		
n-Propylbenzene	0.0567	0.0050	mg/kg wet	0.05000	113	67-130	2	20		
o-Xylene	0.0467	0.0050	mg/kg wet	0.05000	93	74-126	3	20		
sec-Butylbenzene	0.0572	0.0050	mg/kg wet	0.05000	114	66-131	2	20		
Styrene	0.0464	0.0050	mg/kg wet	0.05000	93	77-121	2	20		
tert-Butylbenzene	0.0568	0.0050	mg/kg wet	0.05000	114	67-132	2	20		
Tetrachloroethylene	0.0439	0.0050	mg/kg wet	0.05000	88	68-130	4	20		
Toluene	0.0432	0.0050	mg/kg wet	0.05000	86	71-129	3	20		
trans-1,2-Dichloroethylene	0.0426	0.0050	mg/kg wet	0.05000	85	73-132	3	20		
trans-1,3-Dichloropropylene	0.0458	0.0050	mg/kg wet	0.05000	92	68-123	0.5	20		
Trichloroethylene	0.0426	0.0050	mg/kg wet	0.05000	85	75-133	3	20		
Trichlorofluoromethane	0.0386	0.010	mg/kg wet	0.05000	77	44-146	4	20		
Vinyl acetate	0.0469	0.010	mg/kg wet	0.05000	94	85-161	3	20		
Vinyl chloride	0.0375	0.010	mg/kg wet	0.05000	75	48-147	2	20		
Xylenes, total	0.139	0.015	mg/kg wet	0.1500	93	74-126	3	20		
Surrogate: 4-Bromofluorobenzene	53.3		ug/L	50.00	107	70-130				
Surrogate: Dibromofluoromethane	52.2		ug/L	50.00	104	84-123				
Surrogate: Toluene-d8	54.0		ug/L	50.00	108	76-129				

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Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0401 - 3546</b>										
<b>Blank (P9D0401-BLK1)</b>										
Prepared: 04/23/19 Analyzed: 04/24/19										
1,2,4-Trichlorobenzene	BRL	0.33	mg/kg wet							
1,2-Dichlorobenzene	BRL	0.33	mg/kg wet							
1,3-Dichlorobenzene	BRL	0.33	mg/kg wet							
1,4-Dichlorobenzene	BRL	0.33	mg/kg wet							
1-Methylnaphthalene	BRL	0.33	mg/kg wet							
2,4,5-Trichlorophenol	BRL	0.33	mg/kg wet							
2,4,6-Trichlorophenol	BRL	0.33	mg/kg wet							
2,4-Dichlorophenol	BRL	0.33	mg/kg wet							
2,4-Dimethylphenol	BRL	0.33	mg/kg wet							
2,4-Dinitrophenol	BRL	0.33	mg/kg wet							
2,4-Dinitrotoluene	BRL	0.33	mg/kg wet							
2,6-Dinitrotoluene	BRL	0.33	mg/kg wet							
2-Chloronaphthalene	BRL	0.33	mg/kg wet							
2-Chlorophenol	BRL	0.33	mg/kg wet							
2-Methylnaphthalene	BRL	0.33	mg/kg wet							
2-Methylphenol	BRL	0.33	mg/kg wet							
2-Nitrophenol	BRL	0.33	mg/kg wet							
3,3'-Dichlorobenzidine	BRL	0.33	mg/kg wet							
3/4-Methylphenol	BRL	0.33	mg/kg wet							
4,6-Dinitro-2-methylphenol	BRL	0.33	mg/kg wet							
4-Bromophenyl phenyl ether	BRL	0.33	mg/kg wet							
4-Chloro-3-methylphenol	BRL	0.33	mg/kg wet							
4-Chloroaniline	BRL	0.33	mg/kg wet							
4-Chlorophenyl phenyl ether	BRL	0.33	mg/kg wet							
4-Nitrophenol	BRL	0.33	mg/kg wet							
Acenaphthene	BRL	0.33	mg/kg wet							
Acenaphthylene	BRL	0.33	mg/kg wet							
Anthracene	BRL	0.33	mg/kg wet							
Azobenzene	BRL	0.33	mg/kg wet							
Benzo(a)anthracene	BRL	0.33	mg/kg wet							
Benzo(a)pyrene	BRL	0.33	mg/kg wet							
Benzo(b)fluoranthene	BRL	0.33	mg/kg wet							
Benzo(g,h,i)perylene	BRL	0.33	mg/kg wet							
Benzo(k)fluoranthene	BRL	0.33	mg/kg wet							
Benzoic Acid	BRL	0.33	mg/kg wet							
Benzyl alcohol	BRL	0.33	mg/kg wet							
bis(2-Chloroethoxy)methane	BRL	0.33	mg/kg wet							
Bis(2-Chloroethyl)ether	BRL	0.33	mg/kg wet							
Bis(2-chloroisopropyl)ether	BRL	0.33	mg/kg wet							
Bis(2-Ethylhexyl)phthalate	BRL	0.33	mg/kg wet							
Butyl benzyl phthalate	BRL	0.33	mg/kg wet							
Chrysene	BRL	0.33	mg/kg wet							
Dibenzo(a,h)anthracene	BRL	0.33	mg/kg wet							
Dibenzofuran	BRL	0.33	mg/kg wet							
Diethyl phthalate	BRL	0.33	mg/kg wet							
Dimethyl phthalate	BRL	0.33	mg/kg wet							

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Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0401 - 3546**
**Blank (P9D0401-BLK1)**

Prepared: 04/23/19 Analyzed: 04/24/19

Di-n-butyl phthalate	BRL	0.33	mg/kg wet							
Di-n-octyl phthalate	BRL	0.33	mg/kg wet							
Fluoranthene	BRL	0.33	mg/kg wet							
Fluorene	BRL	0.33	mg/kg wet							
Hexachlorobenzene	BRL	0.33	mg/kg wet							
Hexachlorobutadiene	BRL	0.33	mg/kg wet							
Hexachlorocyclopentadiene	BRL	0.33	mg/kg wet							
Hexachloroethane	BRL	0.33	mg/kg wet							
Indeno(1,2,3-cd)pyrene	BRL	0.33	mg/kg wet							
Isophorone	BRL	0.33	mg/kg wet							
Naphthalene	BRL	0.33	mg/kg wet							
Nitrobenzene	BRL	0.33	mg/kg wet							
N-Nitroso-di-n-propylamine	BRL	0.33	mg/kg wet							
N-Nitrosodiphenylamine	BRL	0.33	mg/kg wet							
Pentachlorophenol	BRL	0.33	mg/kg wet							
Phenanthrene	BRL	0.33	mg/kg wet							
Phenol	BRL	0.33	mg/kg wet							
Pyrene	BRL	0.33	mg/kg wet							
Pyridine	BRL	0.33	mg/kg wet							
<i>Surrogate: 2,4,6-Tribromophenol</i>	3.28		mg/kg wet	3.333		98	39-132			
<i>Surrogate: 2-Fluorobiphenyl</i>	1.63		mg/kg wet	1.667		98	44-115			
<i>Surrogate: 2-Fluorophenol</i>	3.24		mg/kg wet	3.333		97	35-115			
<i>Surrogate: Nitrobenzene-d5</i>	1.49		mg/kg wet	1.667		90	37-122			
<i>Surrogate: Phenol-d5</i>	3.16		mg/kg wet	3.333		95	34-121			
<i>Surrogate: Terphenyl-d14</i>	1.72		mg/kg wet	1.667		103	54-127			

**LCS (P9D0401-BS1)**

Prepared: 04/23/19 Analyzed: 04/24/19

1,2,4-Trichlorobenzene	1.21	0.33	mg/kg wet	1.667		72	34-118			
1,2-Dichlorobenzene	1.24	0.33	mg/kg wet	1.667		74	33-117			
1,3-Dichlorobenzene	1.19	0.33	mg/kg wet	1.667		72	30-115			
1,4-Dichlorobenzene	1.22	0.33	mg/kg wet	1.667		73	31-115			
1-Methylnaphthalene	1.34	0.33	mg/kg wet	1.667		80	40-119			
2,4,5-Trichlorophenol	1.44	0.33	mg/kg wet	1.667		87	62-124			
2,4,6-Trichlorophenol	1.50	0.33	mg/kg wet	1.667		90	39-126			
2,4-Dichlorophenol	1.35	0.33	mg/kg wet	1.667		81	40-122			
2,4-Dimethylphenol	1.69	0.33	mg/kg wet	1.667		101	30-127			
2,4-Dinitrophenol	1.09	0.33	mg/kg wet	1.667		66	27-129			
2,4-Dinitrotoluene	1.55	0.33	mg/kg wet	1.667		93	48-126			
2,6-Dinitrotoluene	1.55	0.33	mg/kg wet	1.667		93	46-124			
2-Chloronaphthalene	1.45	0.33	mg/kg wet	1.667		87	41-114			
2-Chlorophenol	1.49	0.33	mg/kg wet	1.667		90	34-121			
2-Methylnaphthalene	1.28	0.33	mg/kg wet	1.667		76	38-122			
2-Methylphenol	1.56	0.33	mg/kg wet	1.667		94	32-122			
2-Nitrophenol	1.23	0.33	mg/kg wet	1.667		74	36-123			
3,3'-Dichlorobenzidine	1.46	0.33	mg/kg wet	1.667		87	22-121			
3/4-Methylphenol	1.42	0.33	mg/kg wet	1.667		85	34-119			
4,6-Dinitro-2-methylphenol	1.34	0.33	mg/kg wet	1.667		81	29-132			

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Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0401 - 3546</b>										
<b>LCS (P9D0401-BS1)</b>										
Prepared: 04/23/19 Analyzed: 04/24/19										
4-Bromophenyl phenyl ether	1.49	0.33	mg/kg wet	1.667	89	46-124				
4-Chloro-3-methylphenol	1.38	0.33	mg/kg wet	1.667	83	45-122				
4-Chloroaniline	1.30	0.33	mg/kg wet	1.667	78	17-106				
4-Chlorophenyl phenyl ether	1.53	0.33	mg/kg wet	1.667	92	45-121				
4-Nitrophenol	1.51	0.33	mg/kg wet	1.667	91	30-132				
Acenaphthene	1.55	0.33	mg/kg wet	1.667	93	40-123				
Acenaphthylene	1.50	0.33	mg/kg wet	1.667	90	32-132				
Anthracene	1.63	0.33	mg/kg wet	1.667	98	47-123				
Azobenzene	1.48	0.33	mg/kg wet	1.667	89	39-125				
Benzo(a)anthracene	1.52	0.33	mg/kg wet	1.667	91	49-126				
Benzo(a)pyrene	1.51	0.33	mg/kg wet	1.667	91	45-129				
Benzo(b)fluoranthene	1.48	0.33	mg/kg wet	1.667	89	45-132				
Benzo(g,h,i)perylene	1.57	0.33	mg/kg wet	1.667	94	43-134				
Benzo(k)fluoranthene	1.57	0.33	mg/kg wet	1.667	94	47-132				
Benzoic Acid	0.321	0.33	mg/kg wet	1.667	19	10-83				J
Benzyl alcohol	1.45	0.33	mg/kg wet	1.667	87	29-122				
bis(2-Chloroethoxy)methane	1.31	0.33	mg/kg wet	1.667	78	36-121				
Bis(2-Chloroethyl)ether	1.44	0.33	mg/kg wet	1.667	87	31-120				
Bis(2-chloroisopropyl)ether	1.34	0.33	mg/kg wet	1.667	80	33-131				
Bis(2-Ethylhexyl)phthalate	1.57	0.33	mg/kg wet	1.667	94	51-133				
Butyl benzyl phthalate	1.52	0.33	mg/kg wet	1.667	91	48-132				
Chrysene	1.54	0.33	mg/kg wet	1.667	92	50-124				
Dibenzo(a,h)anthracene	1.24	0.33	mg/kg wet	1.667	74	45-134				
Dibenzofuran	1.48	0.33	mg/kg wet	1.667	89	44-120				
Diethyl phthalate	1.55	0.33	mg/kg wet	1.667	93	50-124				
Dimethyl phthalate	1.53	0.33	mg/kg wet	1.667	92	48-124				
Di-n-butyl phthalate	1.59	0.33	mg/kg wet	1.667	95	51-128				
Di-n-octyl phthalate	1.49	0.33	mg/kg wet	1.667	89	45-140				
Fluoranthene	1.59	0.33	mg/kg wet	1.667	95	50-127				
Fluorene	1.61	0.33	mg/kg wet	1.667	96	43-125				
Hexachlorobenzene	1.45	0.33	mg/kg wet	1.667	87	45-122				
Hexachlorobutadiene	1.26	0.33	mg/kg wet	1.667	76	32-123				
Hexachlorocyclopentadiene	1.36	0.33	mg/kg wet	1.667	82	32-117				
Hexachloroethane	1.18	0.33	mg/kg wet	1.667	71	28-117				
Indeno(1,2,3-cd)pyrene	1.81	0.33	mg/kg wet	1.667	108	45-133				
Isophorone	1.26	0.33	mg/kg wet	1.667	76	30-122				
Naphthalene	1.24	0.33	mg/kg wet	1.667	74	35-123				
Nitrobenzene	1.19	0.33	mg/kg wet	1.667	71	34-122				
N-Nitroso-di-n-propylamine	1.41	0.33	mg/kg wet	1.667	85	36-120				
N-Nitrosodiphenylamine	1.81	0.33	mg/kg wet	1.667	109	38-127				
Pentachlorophenol	1.45	0.33	mg/kg wet	1.667	87	25-133				
Phenanthrene	1.59	0.33	mg/kg wet	1.667	96	50-121				
Phenol	1.51	0.33	mg/kg wet	1.667	91	34-121				
Pyrene	1.55	0.33	mg/kg wet	1.667	93	47-127				
Pyridine	0.865	0.33	mg/kg wet	1.667	52	10-60				
<i>Surrogate: 2,4,6-Tribromophenol</i>	3.16		mg/kg wet	3.333	95	39-132				

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Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0401 - 3546</b>										
<b>LCS (P9D0401-BS1)</b>										
Prepared: 04/23/19 Analyzed: 04/24/19										
Surrogate: 2-Fluorobiphenyl	1.49		mg/kg wet	1.667		89	44-115			
Surrogate: 2-Fluorophenol	3.03		mg/kg wet	3.333		91	35-115			
Surrogate: Nitrobenzene-d5	1.24		mg/kg wet	1.667		74	37-122			
Surrogate: Phenol-d5	3.02		mg/kg wet	3.333		91	34-121			
Surrogate: Terphenyl-d14	1.53		mg/kg wet	1.667		92	54-127			
<b>LCS Dup (P9D0401-BSD1)</b>										
Prepared: 04/23/19 Analyzed: 04/24/19										
1,2,4-Trichlorobenzene	1.18	0.33	mg/kg wet	1.667		71	34-118	2	20	
1,2-Dichlorobenzene	1.26	0.33	mg/kg wet	1.667		75	33-117	1	20	
1,3-Dichlorobenzene	1.23	0.33	mg/kg wet	1.667		74	30-115	3	20	
1,4-Dichlorobenzene	1.24	0.33	mg/kg wet	1.667		75	31-115	2	20	
1-Methylnaphthalene	1.30	0.33	mg/kg wet	1.667		78	40-119	3	20	
2,4,5-Trichlorophenol	1.44	0.33	mg/kg wet	1.667		86	62-124	0.3	20	
2,4,6-Trichlorophenol	1.49	0.33	mg/kg wet	1.667		90	39-126	0.6	20	
2,4-Dichlorophenol	1.31	0.33	mg/kg wet	1.667		79	40-122	3	20	
2,4-Dimethylphenol	1.72	0.33	mg/kg wet	1.667		103	30-127	2	20	
2,4-Dinitrophenol	1.04	0.33	mg/kg wet	1.667		62	27-129	5	20	
2,4-Dinitrotoluene	1.55	0.33	mg/kg wet	1.667		93	48-126	0.2	20	
2,6-Dinitrotoluene	1.54	0.33	mg/kg wet	1.667		92	46-124	0.8	20	
2-Chloronaphthalene	1.47	0.33	mg/kg wet	1.667		88	41-114	1	20	
2-Chlorophenol	1.49	0.33	mg/kg wet	1.667		90	34-121	0.02	20	
2-Methylnaphthalene	1.23	0.33	mg/kg wet	1.667		74	38-122	4	20	
2-Methylphenol	1.52	0.33	mg/kg wet	1.667		91	32-122	3	20	
2-Nitrophenol	1.23	0.33	mg/kg wet	1.667		74	36-123	0.08	20	
3,3'-Dichlorobenzidine	1.51	0.33	mg/kg wet	1.667		91	22-121	4	20	
3/4-Methylphenol	1.40	0.33	mg/kg wet	1.667		84	34-119	1	20	
4,6-Dinitro-2-methylphenol	1.31	0.33	mg/kg wet	1.667		79	29-132	3	20	
4-Bromophenyl phenyl ether	1.48	0.33	mg/kg wet	1.667		88	46-124	0.8	20	
4-Chloro-3-methylphenol	1.40	0.33	mg/kg wet	1.667		84	45-122	1	20	
4-Chloroaniline	1.29	0.33	mg/kg wet	1.667		78	17-106	0.6	20	
4-Chlorophenyl phenyl ether	1.54	0.33	mg/kg wet	1.667		92	45-121	0.3	20	
4-Nitrophenol	1.50	0.33	mg/kg wet	1.667		90	30-132	0.8	20	
Acenaphthene	1.53	0.33	mg/kg wet	1.667		92	40-123	2	20	
Acenaphthylene	1.49	0.33	mg/kg wet	1.667		89	32-132	0.5	20	
Anthracene	1.66	0.33	mg/kg wet	1.667		99	47-123	2	20	
Azobenzene	1.49	0.33	mg/kg wet	1.667		89	39-125	0.6	20	
Benzo(a)anthracene	1.56	0.33	mg/kg wet	1.667		94	49-126	2	20	
Benzo(a)pyrene	1.52	0.33	mg/kg wet	1.667		91	45-129	0.3	20	
Benzo(b)fluoranthene	1.48	0.33	mg/kg wet	1.667		89	45-132	0.2	20	
Benzo(g,h,i)perylene	1.59	0.33	mg/kg wet	1.667		95	43-134	1	20	
Benzo(k)fluoranthene	1.58	0.33	mg/kg wet	1.667		95	47-132	0.7	20	
Benzoic Acid	0.337	0.33	mg/kg wet	1.667		20	10-83	5	20	
Benzyl alcohol	1.46	0.33	mg/kg wet	1.667		88	29-122	0.8	20	
bis(2-Chloroethoxy)methane	1.29	0.33	mg/kg wet	1.667		77	36-121	1	20	
Bis(2-Chloroethyl)ether	1.45	0.33	mg/kg wet	1.667		87	31-120	0.2	20	
Bis(2-chloroisopropyl)ether	1.33	0.33	mg/kg wet	1.667		80	33-131	0.2	20	
Bis(2-Ethylhexyl)phthalate	1.57	0.33	mg/kg wet	1.667		94	51-133	0.5	20	

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0401 - 3546**

**LCS Dup (P9D0401-BSD1)**

Prepared: 04/23/19 Analyzed: 04/24/19

Butyl benzyl phthalate	1.54	0.33	mg/kg wet	1.667	93	48-132	1	20
Chrysene	1.56	0.33	mg/kg wet	1.667	94	50-124	2	20
Dibenzo(a,h)anthracene	1.17	0.33	mg/kg wet	1.667	70	45-134	6	20
Dibenzofuran	1.48	0.33	mg/kg wet	1.667	89	44-120	0.6	20
Diethyl phthalate	1.58	0.33	mg/kg wet	1.667	95	50-124	2	20
Dimethyl phthalate	1.53	0.33	mg/kg wet	1.667	92	48-124	0.07	20
Di-n-butyl phthalate	1.57	0.33	mg/kg wet	1.667	94	51-128	1	20
Di-n-octyl phthalate	1.48	0.33	mg/kg wet	1.667	89	45-140	0.4	20
Fluoranthene	1.59	0.33	mg/kg wet	1.667	96	50-127	0.3	20
Fluorene	1.59	0.33	mg/kg wet	1.667	95	43-125	1	20
Hexachlorobenzene	1.42	0.33	mg/kg wet	1.667	85	45-122	2	20
Hexachlorobutadiene	1.25	0.33	mg/kg wet	1.667	75	32-123	0.7	20
Hexachlorocyclopentadiene	1.33	0.33	mg/kg wet	1.667	80	32-117	3	20
Hexachloroethane	1.21	0.33	mg/kg wet	1.667	73	28-117	2	20
Indeno(1,2,3-cd)pyrene	1.81	0.33	mg/kg wet	1.667	108	45-133	0.1	20
Isophorone	1.24	0.33	mg/kg wet	1.667	75	30-122	2	20
Naphthalene	1.22	0.33	mg/kg wet	1.667	73	35-123	1	20
Nitrobenzene	1.21	0.33	mg/kg wet	1.667	72	34-122	1	20
N-Nitroso-di-n-propylamine	1.37	0.33	mg/kg wet	1.667	82	36-120	3	20
N-Nitrosodiphenylamine	1.79	0.33	mg/kg wet	1.667	108	38-127	1	20
Pentachlorophenol	1.36	0.33	mg/kg wet	1.667	82	25-133	6	20
Phenanthrene	1.58	0.33	mg/kg wet	1.667	95	50-121	0.6	20
Phenol	1.48	0.33	mg/kg wet	1.667	89	34-121	2	20
Pyrene	1.57	0.33	mg/kg wet	1.667	94	47-127	2	20
Pyridine	0.920	0.33	mg/kg wet	1.667	55	10-60	6	20
<i>Surrogate: 2,4,6-Tribromophenol</i>	3.06		mg/kg wet	3.333	92	39-132		
<i>Surrogate: 2-Fluorobiphenyl</i>	1.44		mg/kg wet	1.667	87	44-115		
<i>Surrogate: 2-Fluorophenol</i>	2.90		mg/kg wet	3.333	87	35-115		
<i>Surrogate: Nitrobenzene-d5</i>	1.18		mg/kg wet	1.667	71	37-122		
<i>Surrogate: Phenol-d5</i>	2.84		mg/kg wet	3.333	85	34-121		
<i>Surrogate: Terphenyl-d14</i>	1.50		mg/kg wet	1.667	90	54-127		

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
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 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0401 - 3546**

Matrix Spike (P9D0401-MS1)	Source: 9040348-02		Prepared: 04/23/19		Analyzed: 04/24/19					
1,2,4-Trichlorobenzene	1.27	0.39	mg/kg dry	1.981	BRL	64	34-118			
1,2-Dichlorobenzene	1.26	0.39	mg/kg dry	1.981	BRL	63	33-117			
1,3-Dichlorobenzene	1.21	0.39	mg/kg dry	1.981	BRL	61	30-115			
1,4-Dichlorobenzene	1.25	0.39	mg/kg dry	1.981	BRL	63	31-115			
1-Methylnaphthalene	1.37	0.39	mg/kg dry	1.981	BRL	69	40-119			
2,4,5-Trichlorophenol	1.55	0.39	mg/kg dry	1.981	BRL	78	45-121			
2,4,6-Trichlorophenol	1.63	0.39	mg/kg dry	1.981	BRL	82	39-126			
2,4-Dichlorophenol	1.36	0.39	mg/kg dry	1.981	BRL	69	40-122			
2,4-Dimethylphenol	1.74	0.39	mg/kg dry	1.981	BRL	88	30-127			
2,4-Dinitrophenol	1.48	0.39	mg/kg dry	1.981	BRL	75	27-129			
2,4-Dinitrotoluene	1.56	0.39	mg/kg dry	1.981	BRL	79	48-126			
2,6-Dinitrotoluene	1.55	0.39	mg/kg dry	1.981	BRL	78	46-124			
2-Chloronaphthalene	1.50	0.39	mg/kg dry	1.981	BRL	76	41-114			
2-Chlorophenol	1.48	0.39	mg/kg dry	1.981	BRL	75	34-121			
2-Methylnaphthalene	1.32	0.39	mg/kg dry	1.981	BRL	67	38-122			
2-Methylphenol	1.53	0.39	mg/kg dry	1.981	BRL	77	32-122			
2-Nitrophenol	1.30	0.39	mg/kg dry	1.981	BRL	66	36-123			
3,3'-Dichlorobenzidine	1.55	0.39	mg/kg dry	1.981	BRL	78	22-121			
3/4-Methylphenol	1.36	0.39	mg/kg dry	1.981	BRL	69	34-119			
4,6-Dinitro-2-methylphenol	1.54	0.39	mg/kg dry	1.981	BRL	78	29-132			
4-Bromophenyl phenyl ether	1.51	0.39	mg/kg dry	1.981	BRL	76	46-124			
4-Chloro-3-methylphenol	1.41	0.39	mg/kg dry	1.981	BRL	71	45-122			
4-Chloroaniline	1.23	0.39	mg/kg dry	1.981	BRL	62	17-106			
4-Chlorophenyl phenyl ether	1.53	0.39	mg/kg dry	1.981	BRL	77	45-121			
4-Nitrophenol	1.71	0.39	mg/kg dry	1.981	BRL	86	30-132			
Acenaphthene	1.57	0.39	mg/kg dry	1.981	BRL	79	40-123			
Acenaphthylene	1.49	0.39	mg/kg dry	1.981	BRL	75	32-132			
Anthracene	1.64	0.39	mg/kg dry	1.981	BRL	83	47-123			
Azobenzene	1.51	0.39	mg/kg dry	1.981	BRL	76	39-125			
Benzo(a)anthracene	1.56	0.39	mg/kg dry	1.981	BRL	79	49-126			
Benzo(a)pyrene	1.49	0.39	mg/kg dry	1.981	BRL	75	45-129			
Benzo(b)fluoranthene	1.52	0.39	mg/kg dry	1.981	BRL	77	45-132			
Benzo(g,h,i)perylene	1.52	0.39	mg/kg dry	1.981	BRL	77	43-134			
Benzo(k)fluoranthene	1.45	0.39	mg/kg dry	1.981	BRL	73	47-132			
Benzoic Acid	1.82	0.39	mg/kg dry	1.981	BRL	92	10-83			M
Benzyl alcohol	1.44	0.39	mg/kg dry	1.981	BRL	73	29-122			
bis(2-Chloroethoxy)methane	1.31	0.39	mg/kg dry	1.981	BRL	66	36-121			
Bis(2-Chloroethyl)ether	1.42	0.39	mg/kg dry	1.981	BRL	72	31-120			
Bis(2-chloroisopropyl)ether	1.31	0.39	mg/kg dry	1.981	BRL	66	33-131			
Bis(2-Ethylhexyl)phthalate	1.66	0.39	mg/kg dry	1.981	BRL	84	51-133			
Butyl benzyl phthalate	1.47	0.39	mg/kg dry	1.981	BRL	74	48-132			
Chrysene	1.54	0.39	mg/kg dry	1.981	BRL	78	50-124			
Dibenzo(a,h)anthracene	1.17	0.39	mg/kg dry	1.981	BRL	59	45-134			
Dibenzofuran	1.49	0.39	mg/kg dry	1.981	BRL	75	44-120			
Diethyl phthalate	1.58	0.39	mg/kg dry	1.981	BRL	80	50-124			
Dimethyl phthalate	1.53	0.39	mg/kg dry	1.981	BRL	77	48-124			

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
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 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0401 - 3546**

Matrix Spike (P9D0401-MS1)	Source: 9040348-02		Prepared: 04/23/19		Analyzed: 04/24/19		
Di-n-butyl phthalate	1.60	0.39	mg/kg dry	1.981	BRL	81	51-128
Di-n-octyl phthalate	1.56	0.39	mg/kg dry	1.981	BRL	79	45-140
Fluoranthene	1.53	0.39	mg/kg dry	1.981	BRL	77	50-127
Fluorene	1.58	0.39	mg/kg dry	1.981	BRL	80	43-125
Hexachlorobenzene	1.38	0.39	mg/kg dry	1.981	BRL	70	45-122
Hexachlorobutadiene	1.34	0.39	mg/kg dry	1.981	BRL	68	32-123
Hexachlorocyclopentadiene	0.862	0.39	mg/kg dry	1.981	BRL	43	32-117
Hexachloroethane	1.24	0.39	mg/kg dry	1.981	BRL	63	28-117
Indeno(1,2,3-cd)pyrene	1.76	0.39	mg/kg dry	1.981	BRL	89	45-133
Isophorone	1.27	0.39	mg/kg dry	1.981	BRL	64	30-122
Naphthalene	1.30	0.39	mg/kg dry	1.981	BRL	66	35-123
Nitrobenzene	1.24	0.39	mg/kg dry	1.981	BRL	63	34-122
N-Nitroso-di-n-propylamine	1.33	0.39	mg/kg dry	1.981	BRL	67	36-120
N-Nitrosodiphenylamine	1.86	0.39	mg/kg dry	1.981	BRL	94	38-127
Pentachlorophenol	1.90	0.39	mg/kg dry	1.981	BRL	96	25-133
Phenanthrene	1.58	0.39	mg/kg dry	1.981	BRL	80	50-121
Phenol	1.44	0.39	mg/kg dry	1.981	BRL	73	34-121
Pyrene	1.56	0.39	mg/kg dry	1.981	BRL	79	47-127
Pyridine	0.848	0.39	mg/kg dry	1.981	BRL	43	20-150
Surrogate: 2,4,6-Tribromophenol	3.22		mg/kg dry	3.961		81	39-132
Surrogate: 2-Fluorobiphenyl	1.53		mg/kg dry	1.981		77	44-115
Surrogate: 2-Fluorophenol	2.98		mg/kg dry	3.961		75	35-115
Surrogate: Nitrobenzene-d5	1.23		mg/kg dry	1.981		62	37-122
Surrogate: Phenol-d5	2.83		mg/kg dry	3.961		71	34-121
Surrogate: Terphenyl-d14	1.53		mg/kg dry	1.981		77	54-127
Matrix Spike Dup (P9D0401-MSD1)	Source: 9040348-02		Prepared: 04/23/19		Analyzed: 04/24/19		
1,2,4-Trichlorobenzene	1.17	0.39	mg/kg dry	1.982	BRL	59	34-118
1,2-Dichlorobenzene	1.16	0.39	mg/kg dry	1.982	BRL	59	33-117
1,3-Dichlorobenzene	1.12	0.39	mg/kg dry	1.982	BRL	56	30-115
1,4-Dichlorobenzene	1.13	0.39	mg/kg dry	1.982	BRL	57	31-115
1-Methylnaphthalene	1.35	0.39	mg/kg dry	1.982	BRL	68	40-119
2,4,5-Trichlorophenol	1.65	0.39	mg/kg dry	1.982	BRL	83	45-121
2,4,6-Trichlorophenol	1.68	0.39	mg/kg dry	1.982	BRL	85	39-126
2,4-Dichlorophenol	1.39	0.39	mg/kg dry	1.982	BRL	70	40-122
2,4-Dimethylphenol	1.77	0.39	mg/kg dry	1.982	BRL	89	30-127
2,4-Dinitrophenol	1.49	0.39	mg/kg dry	1.982	BRL	75	27-129
2,4-Dinitrotoluene	1.66	0.39	mg/kg dry	1.982	BRL	84	48-126
2,6-Dinitrotoluene	1.63	0.39	mg/kg dry	1.982	BRL	82	46-124
2-Chloronaphthalene	1.52	0.39	mg/kg dry	1.982	BRL	77	41-114
2-Chlorophenol	1.45	0.39	mg/kg dry	1.982	BRL	73	34-121
2-Methylnaphthalene	1.30	0.39	mg/kg dry	1.982	BRL	65	38-122
2-Methylphenol	1.51	0.39	mg/kg dry	1.982	BRL	76	32-122
2-Nitrophenol	1.24	0.39	mg/kg dry	1.982	BRL	63	36-123
3,3'-Dichlorobenzidine	1.79	0.39	mg/kg dry	1.982	BRL	90	22-121
3/4-Methylphenol	1.40	0.39	mg/kg dry	1.982	BRL	70	34-119
4,6-Dinitro-2-methylphenol	1.61	0.39	mg/kg dry	1.982	BRL	81	29-132

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Project No: 1883R2707 Parcel  
623

Prism Work Order: 9040348  
Time Submitted: 4/22/2019 9:30:00AM

### Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P9D0401 - 3546

Matrix Spike Dup (P9D0401-MSD1)	Source: 9040348-02			Prepared: 04/23/19			Analyzed: 04/24/19			
4-Bromophenyl phenyl ether	1.61	0.39	mg/kg dry	1.982	BRL	81	46-124	6	20	
4-Chloro-3-methylphenol	1.47	0.39	mg/kg dry	1.982	BRL	74	45-122	5	20	
4-Chloroaniline	1.33	0.39	mg/kg dry	1.982	BRL	67	17-106	8	20	
4-Chlorophenyl phenyl ether	1.61	0.39	mg/kg dry	1.982	BRL	81	45-121	5	20	
4-Nitrophenol	1.89	0.39	mg/kg dry	1.982	BRL	95	30-132	10	20	
Acenaphthene	1.60	0.39	mg/kg dry	1.982	BRL	81	40-123	2	20	
Acenaphthylene	1.57	0.39	mg/kg dry	1.982	BRL	79	32-132	5	20	
Anthracene	1.74	0.39	mg/kg dry	1.982	BRL	88	47-123	6	20	
Azobenzene	1.57	0.39	mg/kg dry	1.982	BRL	79	39-125	4	20	
Benzo(a)anthracene	1.76	0.39	mg/kg dry	1.982	BRL	89	49-126	12	20	
Benzo(a)pyrene	1.67	0.39	mg/kg dry	1.982	BRL	84	45-129	12	20	
Benzo(b)fluoranthene	1.64	0.39	mg/kg dry	1.982	BRL	83	45-132	7	20	
Benzo(g,h,i)perylene	1.72	0.39	mg/kg dry	1.982	BRL	87	43-134	12	20	
Benzo(k)fluoranthene	1.70	0.39	mg/kg dry	1.982	BRL	86	47-132	16	20	
Benzoic Acid	1.73	0.39	mg/kg dry	1.982	BRL	87	10-83	5	20	M
Benzyl alcohol	1.45	0.39	mg/kg dry	1.982	BRL	73	29-122	0.5	20	
bis(2-Chloroethoxy)methane	1.30	0.39	mg/kg dry	1.982	BRL	65	36-121	0.6	20	
Bis(2-Chloroethyl)ether	1.09	0.39	mg/kg dry	1.982	BRL	55	31-120	27	20	D
Bis(2-chloroisopropyl)ether	1.24	0.39	mg/kg dry	1.982	BRL	62	33-131	6	20	
Bis(2-Ethylhexyl)phthalate	1.79	0.39	mg/kg dry	1.982	BRL	90	51-133	7	20	
Butyl benzyl phthalate	1.66	0.39	mg/kg dry	1.982	BRL	84	48-132	12	20	
Chrysene	1.74	0.39	mg/kg dry	1.982	BRL	88	50-124	12	20	
Dibenzo(a,h)anthracene	3.68	0.39	mg/kg dry	1.982	BRL	186	45-134	104	20	D, M
Dibenzofuran	1.56	0.39	mg/kg dry	1.982	BRL	79	44-120	5	20	
Diethyl phthalate	1.68	0.39	mg/kg dry	1.982	BRL	85	50-124	6	20	
Dimethyl phthalate	1.62	0.39	mg/kg dry	1.982	BRL	82	48-124	6	20	
Di-n-butyl phthalate	1.70	0.39	mg/kg dry	1.982	BRL	86	51-128	6	20	
Di-n-octyl phthalate	1.74	0.39	mg/kg dry	1.982	BRL	88	45-140	11	20	
Fluoranthene	1.67	0.39	mg/kg dry	1.982	BRL	84	50-127	9	20	
Fluorene	1.70	0.39	mg/kg dry	1.982	BRL	86	43-125	8	20	
Hexachlorobenzene	1.52	0.39	mg/kg dry	1.982	BRL	77	45-122	10	20	
Hexachlorobutadiene	1.26	0.39	mg/kg dry	1.982	BRL	64	32-123	6	20	
Hexachlorocyclopentadiene	0.817	0.39	mg/kg dry	1.982	BRL	41	32-117	5	20	
Hexachloroethane	1.11	0.39	mg/kg dry	1.982	BRL	56	28-117	11	20	
Indeno(1,2,3-cd)pyrene	1.69	0.39	mg/kg dry	1.982	BRL	85	45-133	4	20	
Isophorone	1.26	0.39	mg/kg dry	1.982	BRL	63	30-122	0.8	20	
Naphthalene	1.24	0.39	mg/kg dry	1.982	BRL	62	35-123	5	20	
Nitrobenzene	1.17	0.39	mg/kg dry	1.982	BRL	59	34-122	6	20	
N-Nitroso-di-n-propylamine	1.32	0.39	mg/kg dry	1.982	BRL	67	36-120	0.9	20	
N-Nitrosodiphenylamine	1.98	0.39	mg/kg dry	1.982	BRL	100	38-127	6	20	
Pentachlorophenol	2.16	0.39	mg/kg dry	1.982	BRL	109	25-133	13	20	
Phenanthrene	1.69	0.39	mg/kg dry	1.982	BRL	85	50-121	7	20	
Phenol	1.43	0.39	mg/kg dry	1.982	BRL	72	34-121	0.3	20	
Pyrene	1.71	0.39	mg/kg dry	1.982	BRL	86	47-127	9	20	
Pyridine	0.731	0.39	mg/kg dry	1.982	BRL	37	20-150	15	60	
Surrogate: 2,4,6-Tribromophenol	3.52		mg/kg dry	3.964		89	39-132			

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0401 - 3546**

Matrix Spike Dup (P9D0401-MSD1)	Source: 9040348-02	Prepared: 04/23/19	Analyzed: 04/24/19
Surrogate: 2-Fluorobiphenyl	1.53	mg/kg dry	1.982
Surrogate: 2-Fluorophenol	2.79	mg/kg dry	3.964
Surrogate: Nitrobenzene-d5	1.14	mg/kg dry	1.982
Surrogate: Phenol-d5	2.77	mg/kg dry	3.964
Surrogate: Terphenyl-d14	1.62	mg/kg dry	1.982

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
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 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Organochlorine Pesticides by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0422 - 3546**

<b>Blank (P9D0422-BLK1)</b>		Prepared & Analyzed: 04/24/19					
4,4'-DDD	BRL	0.0050	mg/kg wet				
4,4'-DDE	BRL	0.0050	mg/kg wet				
4,4'-DDT	BRL	0.0050	mg/kg wet				
Aldrin	BRL	0.0050	mg/kg wet				
alpha-BHC	BRL	0.0050	mg/kg wet				
cis-Chlordane	BRL	0.0050	mg/kg wet				
beta-BHC	BRL	0.0050	mg/kg wet				
Chlordane	BRL	0.050	mg/kg wet				
delta-BHC	BRL	0.0050	mg/kg wet				
Dieldrin	BRL	0.0050	mg/kg wet				
Endosulfan I	BRL	0.0050	mg/kg wet				
Endosulfan II	BRL	0.0050	mg/kg wet				
Endosulfan Sulfate	BRL	0.0050	mg/kg wet				
Endrin	BRL	0.0050	mg/kg wet				
Endrin Aldehyde	BRL	0.0050	mg/kg wet				
Endrin Ketone	BRL	0.0050	mg/kg wet				
gamma-BHC	BRL	0.0050	mg/kg wet				
trans-Chlordane	BRL	0.0050	mg/kg wet				
Heptachlor	BRL	0.0050	mg/kg wet				
Heptachlor Epoxide	BRL	0.0050	mg/kg wet				
Methoxychlor	BRL	0.0050	mg/kg wet				
Toxaphene	BRL	0.050	mg/kg wet				
<i>Surrogate: Decachlorobiphenyl</i>	0.0243		mg/kg wet	0.03333		73	26-204
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0227		mg/kg wet	0.03333		68	40-162

**LCS (P9D0422-BS1)** Prepared & Analyzed: 04/24/19

4,4'-DDD	0.0250	0.0050	mg/kg wet	0.03333		75	56-139
4,4'-DDE	0.0260	0.0050	mg/kg wet	0.03333		78	56-134
4,4'-DDT	0.0247	0.0050	mg/kg wet	0.03333		74	50-145
Aldrin	0.0233	0.0050	mg/kg wet	0.03333		70	45-136
alpha-BHC	0.0247	0.0050	mg/kg wet	0.03333		74	45-137
cis-Chlordane	0.0240	0.0050	mg/kg wet	0.03333		72	54-133
beta-BHC	0.0230	0.0050	mg/kg wet	0.03333		69	50-136
delta-BHC	0.0260	0.0050	mg/kg wet	0.03333		78	47-139
Dieldrin	0.0243	0.0050	mg/kg wet	0.03333		73	56-136
Endosulfan I	0.0217	0.0050	mg/kg wet	0.03333		65	53-132
Endosulfan II	0.0240	0.0050	mg/kg wet	0.03333		72	53-134
Endosulfan Sulfate	0.0223	0.0050	mg/kg wet	0.03333		67	55-136
Endrin	0.0250	0.0050	mg/kg wet	0.03333		75	57-140
Endrin Aldehyde	0.0240	0.0050	mg/kg wet	0.03333		72	35-137
Endrin Ketone	0.0243	0.0050	mg/kg wet	0.03333		73	55-136
gamma-BHC	0.0243	0.0050	mg/kg wet	0.03333		73	49-135
trans-Chlordane	0.0240	0.0050	mg/kg wet	0.03333		72	53-135
Heptachlor	0.0247	0.0050	mg/kg wet	0.03333		74	47-136
Heptachlor Epoxide	0.0243	0.0050	mg/kg wet	0.03333		73	52-136
Methoxychlor	0.0253	0.0050	mg/kg wet	0.03333		76	52-143
<i>Surrogate: Decachlorobiphenyl</i>	0.0237		mg/kg wet	0.03333		71	26-204

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 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Organochlorine Pesticides by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9D0422 - 3546</b>										
<b>LCS (P9D0422-BS1)</b>										
Surrogate: Tetrachloro-m-xylene										
0.0233 mg/kg wet 0.03333										
<b>LCS (P9D0422-BS2)</b>										
Chlordane										
0.309 0.050 mg/kg wet 0.3333										
Surrogate: Decachlorobiphenyl										
0.0237 mg/kg wet 0.03333										
Surrogate: Tetrachloro-m-xylene										
0.0227 mg/kg wet 0.03333										
<b>LCS (P9D0422-BS3)</b>										
Toxaphene										
0.339 0.050 mg/kg wet 0.3333										
Surrogate: Decachlorobiphenyl										
0.0233 mg/kg wet 0.03333										
Surrogate: Tetrachloro-m-xylene										
0.0220 mg/kg wet 0.03333										
<b>LCS Dup (P9D0422-BSD1)</b>										
4,4'-DDD										
0.0250 0.0050 mg/kg wet 0.03333										
4,4'-DDE										
0.0260 0.0050 mg/kg wet 0.03333										
4,4'-DDT										
0.0250 0.0050 mg/kg wet 0.03333										
Aldrin										
0.0237 0.0050 mg/kg wet 0.03333										
alpha-BHC										
0.0247 0.0050 mg/kg wet 0.03333										
cis-Chlordane										
0.0240 0.0050 mg/kg wet 0.03333										
beta-BHC										
0.0223 0.0050 mg/kg wet 0.03333										
delta-BHC										
0.0257 0.0050 mg/kg wet 0.03333										
Dieldrin										
0.0247 0.0050 mg/kg wet 0.03333										
Endosulfan I										
0.0220 0.0050 mg/kg wet 0.03333										
Endosulfan II										
0.0237 0.0050 mg/kg wet 0.03333										
Endosulfan Sulfate										
0.0223 0.0050 mg/kg wet 0.03333										
Endrin										
0.0253 0.0050 mg/kg wet 0.03333										
Endrin Aldehyde										
0.0240 0.0050 mg/kg wet 0.03333										
Endrin Ketone										
0.0243 0.0050 mg/kg wet 0.03333										
gamma-BHC										
0.0247 0.0050 mg/kg wet 0.03333										
trans-Chlordane										
0.0240 0.0050 mg/kg wet 0.03333										
Heptachlor										
0.0250 0.0050 mg/kg wet 0.03333										
Heptachlor Epoxide										
0.0247 0.0050 mg/kg wet 0.03333										
Methoxychlor										
0.0257 0.0050 mg/kg wet 0.03333										
Surrogate: Decachlorobiphenyl										
0.0237 mg/kg wet 0.03333										
Surrogate: Tetrachloro-m-xylene										
0.0230 mg/kg wet 0.03333										

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 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Organochlorine Pesticides by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0422 - 3546**

<b>Matrix Spike (P9D0422-MS1)</b>		<b>Source: 9040348-03</b>		<b>Prepared: 04/24/19</b>		<b>Analyzed: 04/25/19</b>	
4,4'-DDD	0.0301	0.0067	mg/kg dry	0.04488	BRL	67	56-139
4,4'-DDE	0.0328	0.0067	mg/kg dry	0.04488	BRL	73	56-134
4,4'-DDT	0.0301	0.0067	mg/kg dry	0.04488	BRL	67	50-145
Aldrin	0.0337	0.0067	mg/kg dry	0.04488	BRL	75	45-136
alpha-BHC	0.0301	0.0067	mg/kg dry	0.04488	BRL	67	45-137
cis-Chlordane	0.0287	0.0067	mg/kg dry	0.04488	BRL	64	54-133
beta-BHC	0.0278	0.0067	mg/kg dry	0.04488	BRL	62	50-136
delta-BHC	0.0314	0.0067	mg/kg dry	0.04488	BRL	70	47-139
Dieldrin	0.0296	0.0067	mg/kg dry	0.04488	BRL	66	56-136
Endosulfan I	0.0251	0.0067	mg/kg dry	0.04488	BRL	56	53-132
Endosulfan II	0.0247	0.0067	mg/kg dry	0.04488	BRL	55	53-134
Endosulfan Sulfate	0.0269	0.0067	mg/kg dry	0.04488	BRL	60	55-136
Endrin	0.0323	0.0067	mg/kg dry	0.04488	BRL	72	57-140
Endrin Aldehyde	0.0260	0.0067	mg/kg dry	0.04488	BRL	58	35-137
Endrin Ketone	0.0301	0.0067	mg/kg dry	0.04488	BRL	67	55-136
gamma-BHC	0.0296	0.0067	mg/kg dry	0.04488	BRL	66	49-135
trans-Chlordane	0.0265	0.0067	mg/kg dry	0.04488	BRL	59	53-135
Heptachlor	0.0323	0.0067	mg/kg dry	0.04488	BRL	72	47-136
Heptachlor Epoxide	0.0292	0.0067	mg/kg dry	0.04488	BRL	65	52-136
Methoxychlor	0.0310	0.0067	mg/kg dry	0.04488	BRL	69	52-143
<i>Surrogate: Decachlorobiphenyl</i>	0.0305		mg/kg dry	0.04488		68	26-204
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0274		mg/kg dry	0.04488		61	40-162

<b>Matrix Spike Dup (P9D0422-MSD1)</b>		<b>Source: 9040348-03</b>		<b>Prepared: 04/24/19</b>		<b>Analyzed: 04/25/19</b>	
4,4'-DDD	0.0315	0.0067	mg/kg dry	0.04496	BRL	70	56-139
4,4'-DDE	0.0333	0.0067	mg/kg dry	0.04496	BRL	74	56-134
4,4'-DDT	0.0297	0.0067	mg/kg dry	0.04496	BRL	66	50-145
Aldrin	0.0364	0.0067	mg/kg dry	0.04496	BRL	81	45-136
alpha-BHC	0.0310	0.0067	mg/kg dry	0.04496	BRL	69	45-137
cis-Chlordane	0.0292	0.0067	mg/kg dry	0.04496	BRL	65	54-133
beta-BHC	0.0292	0.0067	mg/kg dry	0.04496	BRL	65	50-136
delta-BHC	0.0324	0.0067	mg/kg dry	0.04496	BRL	72	47-139
Dieldrin	0.0310	0.0067	mg/kg dry	0.04496	BRL	69	56-136
Endosulfan I	0.0256	0.0067	mg/kg dry	0.04496	BRL	57	53-132
Endosulfan II	0.0279	0.0067	mg/kg dry	0.04496	BRL	62	53-134
Endosulfan Sulfate	0.0274	0.0067	mg/kg dry	0.04496	BRL	61	55-136
Endrin	0.0333	0.0067	mg/kg dry	0.04496	BRL	74	57-140
Endrin Aldehyde	0.0256	0.0067	mg/kg dry	0.04496	BRL	57	35-137
Endrin Ketone	0.0315	0.0067	mg/kg dry	0.04496	BRL	70	55-136
gamma-BHC	0.0306	0.0067	mg/kg dry	0.04496	BRL	68	49-135
trans-Chlordane	0.0270	0.0067	mg/kg dry	0.04496	BRL	60	53-135
Heptachlor	0.0351	0.0067	mg/kg dry	0.04496	BRL	78	47-136
Heptachlor Epoxide	0.0301	0.0067	mg/kg dry	0.04496	BRL	67	52-136
Methoxychlor	0.0319	0.0067	mg/kg dry	0.04496	BRL	71	52-143
<i>Surrogate: Decachlorobiphenyl</i>	0.0324		mg/kg dry	0.04496		72	26-204
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0274		mg/kg dry	0.04496		61	40-162

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0478 - 3050B**

<b>Blank (P9D0478-BLK1)</b>	Prepared & Analyzed: 04/26/19								
Arsenic	BRL	1.0	mg/kg wet						
Barium	BRL	10	mg/kg wet						
Cadmium	BRL	0.50	mg/kg wet						
Chromium	BRL	1.0	mg/kg wet						
Lead	BRL	1.0	mg/kg wet						
Selenium	BRL	1.0	mg/kg wet						
Silver	BRL	0.50	mg/kg wet						

<b>LCS (P9D0478-BS1)</b>	Prepared & Analyzed: 04/26/19								
Arsenic	11.9	1.0	mg/kg wet	12.50		96	80-120		
Barium	12.7	10	mg/kg wet	12.50		102	80-120		
Cadmium	12.3	0.50	mg/kg wet	12.50		98	80-120		
Chromium	12.6	1.0	mg/kg wet	12.50		101	80-120		
Lead	12.1	1.0	mg/kg wet	12.50		97	80-120		
Selenium	11.6	1.0	mg/kg wet	12.50		93	80-120		
Silver	4.80	0.50	mg/kg wet	5.000		96	80-120		

<b>Matrix Spike (P9D0478-MS1)</b>	<b>Source: 9040348-01</b>	Prepared & Analyzed: 04/26/19								
Arsenic	16.3	1.1	mg/kg dry	14.31	3.79	87	75-125			
Barium	90.9	11	mg/kg dry	14.31	69.6	149	75-125			MC
Cadmium	13.3	0.57	mg/kg dry	14.31	BRL	93	75-125			
Chromium	101	1.1	mg/kg dry	14.31	77.6	162	75-125			MC
Lead	34.3	1.1	mg/kg dry	14.31	15.9	129	75-125			M
Selenium	11.1	1.1	mg/kg dry	14.31	BRL	77	75-125			
Silver	5.19	0.57	mg/kg dry	5.724	BRL	91	75-125			

<b>Matrix Spike Dup (P9D0478-MSD1)</b>	<b>Source: 9040348-01</b>	Prepared & Analyzed: 04/26/19								
Arsenic	16.5	1.1	mg/kg dry	14.31	3.79	89	75-125	1	20	
Barium	92.3	11	mg/kg dry	14.31	69.6	159	75-125	2	20	MC
Cadmium	13.1	0.57	mg/kg dry	14.31	BRL	91	75-125	1	20	
Chromium	100	1.1	mg/kg dry	14.31	77.6	156	75-125	0.9	20	MC
Lead	32.6	1.1	mg/kg dry	14.31	15.9	117	75-125	5	20	
Selenium	10.9	1.1	mg/kg dry	14.31	BRL	76	75-125	1	20	
Silver	5.17	0.57	mg/kg dry	5.724	BRL	90	75-125	0.4	20	

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 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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**Batch P9D0478 - 3050B**

Post Spike (P9D0478-PS1)		Source: 9040348-01		Prepared & Analyzed: 04/26/19					
Arsenic	0.596		mg/L	0.5001	0.132	93	75-125		
Barium	2.87		mg/L	0.5000	2.43	89	75-125		
Cadmium	0.453		mg/L	0.5000	0.000394	91	75-125		
Chromium	3.21		mg/L	0.5001	2.71	99	75-125		
Lead	0.993		mg/L	0.5001	0.554	88	75-125		
Selenium	0.422		mg/L	0.4999	-0.0496	84	75-125		
Silver	0.176		mg/L	0.2000	-0.0175	88	75-125		

**Batch P9D0510 - 7471B**

Blank (P9D0510-BLK1)		Prepared & Analyzed: 04/29/19				
Mercury	BRL	0.050	mg/kg wet			
LCS (P9D0510-BS1)		Prepared & Analyzed: 04/29/19				
Mercury	0.421	0.050	mg/kg wet	0.4167	101	80-120

**Batch P9D0511 - 7471B**

Blank (P9D0511-BLK1)		Prepared & Analyzed: 04/29/19				
Mercury	BRL	0.050	mg/kg wet			

**Batch P9E0005 - 7471B**

Blank (P9E0005-BLK1)		Prepared & Analyzed: 05/01/19				
Mercury	BRL	0.050	mg/kg wet			

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 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9E0005 - 7471B**

<b>LCS (P9E0005-BS1)</b>	Prepared & Analyzed: 05/01/19									
Mercury	0.429	0.050	mg/kg wet	0.4167	103	80-120				
<b>Matrix Spike (P9E0005-MS1)</b>	Source: 9040348-10 Prepared & Analyzed: 05/01/19									
Mercury	0.548	0.059	mg/kg dry	0.4898	0.0304	106	80-120			
<b>Matrix Spike Dup (P9E0005-MSD1)</b>	Source: 9040348-10 Prepared & Analyzed: 05/01/19									
Mercury	0.545	0.059	mg/kg dry	0.4898	0.0304	105	80-120	0.5	20	

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 623

Prism Work Order: 9040348  
 Time Submitted: 4/22/2019 9:30:00AM

**General Chemistry Parameters - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0557 - Solids, Dry Weight**

Duplicate (P9D0557-DUP2)	Source: 9040348-03	Prepared & Analyzed: 04/30/19
% Solids	72.2      0.100 % by Weight	74.0      2      20

### Sample Extraction Data

**Prep Method: Solids, Dry Weight**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0557	30 g	30 g	04/30/19 16:16
9040348-02	P9D0557	30 g	30 g	04/30/19 16:16
9040348-03	P9D0557	30 g	30 g	04/30/19 16:16
9040348-04	P9D0557	30 g	30 g	04/30/19 16:16
9040348-05	P9D0557	30 g	30 g	04/30/19 16:16
9040348-06	P9D0557	30 g	30 g	04/30/19 16:16
9040348-07	P9D0557	30 g	30 g	04/30/19 16:16
9040348-08	P9E0019	30 g	30 g	05/01/19 16:19
9040348-09	P9E0019	30 g	30 g	05/01/19 16:19
9040348-10	P9E0019	30 g	30 g	05/01/19 16:19

**Prep Method: 3546**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0422	30.01 g	10 mL	04/24/19 10:05
9040348-02	P9D0422	30.09 g	10 mL	04/24/19 10:05
9040348-02	P9D0422	30.09 g	10 mL	04/24/19 10:05
9040348-03	P9D0422	30.13 g	10 mL	04/24/19 10:05
9040348-03	P9D0422	30.13 g	10 mL	04/24/19 10:05
9040348-04	P9D0422	30.06 g	10 mL	04/24/19 10:05
9040348-04	P9D0422	30.06 g	10 mL	04/24/19 10:05
9040348-05	P9D0422	30.03 g	10 mL	04/24/19 10:05
9040348-05	P9D0422	30.03 g	10 mL	04/24/19 10:05
9040348-06	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-06	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-07	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-07	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-08	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-08	P9D0422	30.07 g	10 mL	04/24/19 10:05
9040348-09	P9D0422	30.02 g	10 mL	04/24/19 10:05
9040348-10	P9D0422	30.07 g	10 mL	04/24/19 10:05

**Prep Method: 3546**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0401	30.06 g	1 mL	04/23/19 11:00
9040348-02	P9D0401	30.06 g	1 mL	04/23/19 11:00
9040348-03	P9D0401	30.05 g	1 mL	04/23/19 11:00
9040348-04	P9D0401	30.09 g	1 mL	04/23/19 11:00
9040348-05	P9D0401	30.07 g	1 mL	04/23/19 11:00
9040348-06	P9D0401	30.06 g	1 mL	04/23/19 11:00
9040348-07	P9D0401	30.01 g	1 mL	04/23/19 11:00
9040348-08	P9D0401	30.08 g	1 mL	04/23/19 11:00
9040348-09	P9D0401	30.08 g	1 mL	04/23/19 11:00
9040348-10	P9D0401	30.1 g	1 mL	04/23/19 11:00

**Prep Method: 3050B**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-02	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-03	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-04	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-04	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-05	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-05	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-06	P9D0478	2 g	50 mL	04/26/19 8:10

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## Sample Extraction Data

**Prep Method: 3050B**

Lab Number	Batch	Initial	Final	Date/Time
9040348-07	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-08	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-09	P9D0478	2 g	50 mL	04/26/19 8:10
9040348-10	P9D0478	2 g	50 mL	04/26/19 8:10

**Prep Method: 7471B**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-02	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-03	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-04	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-05	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-06	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-07	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-08	P9D0510	0.6 g	50 mL	04/29/19 9:10
9040348-09	P9E0005	0.6 g	50 mL	05/01/19 8:55
9040348-10	P9E0005	0.6 g	50 mL	05/01/19 8:55

**Prep Method: 5035**

Lab Number	Batch	Initial	Final	Date/Time
9040348-01	P9D0530	3.99 g	5 mL	04/26/19 10:00
9040348-02	P9D0530	5.62 g	5 mL	04/26/19 10:00
9040348-03	P9D0530	5.79 g	5 mL	04/26/19 10:00
9040348-04	P9D0530	4.57 g	5 mL	04/26/19 10:00
9040348-05	P9D0530	4.91 g	5 mL	04/26/19 10:00
9040348-06	P9D0530	5.74 g	5 mL	04/26/19 10:00
9040348-07	P9D0530	7.75 g	5 mL	04/26/19 10:00
9040348-08	P9D0530	5.51 g	5 mL	04/26/19 10:00
9040348-09	P9D0530	4.5 g	5 mL	04/26/19 10:00
9040348-10	P9D0530	4.44 g	5 mL	04/26/19 10:00

### Subcontracted Analyses

The following analyses were subcontracted to Analytical Environmental Services , Inc.

Lab Number	Analysis
9040348-01	Herbicides (Sub)
9040348-02	Herbicides (Sub)
9040348-03	Herbicides (Sub)
9040348-04	Herbicides (Sub)
9040348-05	Herbicides (Sub)
9040348-06	Herbicides (Sub)
9040348-07	Herbicides (Sub)
9040348-08	Herbicides (Sub)
9040348-09	Herbicides (Sub)
9040348-10	Herbicides (Sub)



Full-Service Analytical &  
Environmental Solutions

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

Client Company Name: Wood  
Report To/Contact Name: John Maas  
Reporting Address: 2801 Yorkmont Rd  
Charlotte, NC  
Phone: 704-621-7717 Fax (Yes) (No): \_\_\_\_\_  
Email Address: John.maas@westplic.com  
EDD Type: PDF  Excel  Other \_\_\_\_\_  
Site Location Name: Parcel 623  
Site Location Physical Address: \_\_\_\_\_

# CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENS.

OPER BILLING: 161

Project Name: NCDOOT

Short Hold Analysis: (Yes)  (No)

\*Please ATTACH any project specific provisions and/or QC Requirements

Invoice To: John Maas

Address: \_\_\_\_\_

Purchase Order No./Billing Reference 1883R2707

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

Samples INTACT upon arrival?

YES  NO  N/A

Received ON WET ICE?

YES  NO

PROPER PRESERVATIVES indicated?

YES  NO

Received WITHIN HOLDING TIMES?

YES  NO

CUSTODY SEALS INTACT?

YES  NO

VOLATILES rec'd W/OUT HEADSPACE?

YES  NO

PROPER CONTAINERS used?

YES  NO

TEMP: Therm ID: 12T-13 Observed: 30 °C / Corr: 31 °C

## TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC  DoD  FL  NC   
SC  OTHER  N/A

Water Chlorinated: YES  NO

Sample Iced Upon Collection: YES  NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVA-TIVES	ANALYSIS REQUESTED					REMARKS	PRISM LAB ID NO.	
				*TYPE SEE BELOW	NO.	SIZE		PCFA	METAL	851	8081	8215	8216	8217	8218
P623-SB1-0-2	4/17/19	1605	Soil	Various	7	Various	Various	X	X	X	X				01
P623-SB1-6-8		1625						X	X	X	X				02
P623-SB2-2-4		1710						X	X	X	X				03
P623-SB2-8-10		1720						X	X	X	X				04
P623-SB3-2-4		1730						X	X	X	X				05
P623-SB4-2-4		1745						X	X	X	X				06
P623-SB4-10-12		1800						X	X	X	X				07
P623-SB5-0-2	4/18/19	940						X	X	X	X				08
P623-SB6-0-2		950						X	X	X	X				09
P623-SB7-0-2		1000						X	X	X	X				10

Sampler's Signature D. Haydn

Sampled By (Print Name) Derrick Haydn

Affiliation Wood

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.

Relinquished By: (Signature) John Maas

Received By: (Signature) Scot W

Date 4-22-19 Military/Hours 07:20

Additional Comments:

Relinquished By: (Signature) John Maas

Received By: (Signature) Scot W

Date 4-22-19

Relinquished By: (Signature) John Maas

Received For Prism Laboratories By: John Maas

Date 4-22-19 COC Group No. 01-30

## PRISM USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

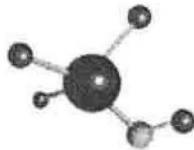
Mileage:

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

UPS  Hand-delivered  Prism Field Service  Other

DES: <input type="checkbox"/> SC	UST: <input type="checkbox"/> NC <input type="checkbox"/> SC	GROUNDWATER: <input type="checkbox"/> NC <input type="checkbox"/> SC	DRINKING WATER: <input type="checkbox"/> NC <input type="checkbox"/> SC	SOLID WASTE: <input type="checkbox"/> NC <input type="checkbox"/> SC	RCRA: <input type="checkbox"/> NC <input type="checkbox"/> SC	CERCLA: <input type="checkbox"/> NC <input type="checkbox"/> SC	LANDFILL: <input type="checkbox"/> NC <input type="checkbox"/> SC	OTHER: <input type="checkbox"/> NC <input type="checkbox"/> SC
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SEE REVERSE FOR  
TERMS & CONDITIONS



ACCESS  
ANALYTICAL, INC.

## ANALYTICAL REPORT

### CLIENT

Prism Laboratories  
PO Box 240543  
Charlotte NC 282240543

ATTENTION  
Robbi A. Jones

PROJECT ID  
9040348

LABORATORY REPORT NUMBER  
1904N76

DATE  
April 26, 2019

Primary Data Review By

---

Chris Pafford  
Project Manager, AES

Secondary Data Review By

---

Ashley Amick  
Project Manager, Access Analytical  
aamick@axs-inc.com

### PLEASE NOTE:

- Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3080 Presidential Drive, Atlanta, GA 30340.
- AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582
- AIHA-LAP,LLC Laboratory ID:100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination.
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll free at 883.315.4243



Full-Service Analytical &  
Environmental Solutions

Sub to AES 4/22/19 FedEx Std

1904N76

SUBCONTRACT ORDER

Prism Laboratories, Inc.

9040348

Certification: MELAC  USACE   
NC  SC  Other   
N/A

SENDING LABORATORY:

Prism Laboratories, Inc.  
P. O. Box 240543  
Charlotte, NC 28224-0543  
Phone: 800-529-6364  
Fax: 704-525-0409  
Project Manager: Robbi A. Jones

RECEIVING LABORATORY:

Analytical Environmental Services, Inc.  
3080 Presidential Parkway  
Atlanta, GA 30340  
Phone: (770) 457-8177  
Fax: NA

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 9040348-01	Solid	Sampled: 04/17/19 16:05 /	P623-SB1-0-Z	Herbicides (Sub) 05/01/19 16:05
Containers Supplied: <i>4oz Glass Jar</i>				
Sample ID: 9040348-02	Solid	Sampled: 04/17/19 16:25 /	P623-SB1-6-8	Herbicides (Sub) 05/01/19 16:25
Containers Supplied: <i></i>				
Sample ID: 9040348-03	Solid	Sampled: 04/17/19 17:10 /	P623-SB1-2-4	Herbicides (Sub) 05/01/19 17:10
Containers Supplied: <i></i>				
Sample ID: 9040348-04	Solid	Sampled: 04/17/19 17:20 /	P623-SB1-8-10	Herbicides (Sub) 05/01/19 17:20
Containers Supplied: <i></i>				
Sample ID: 9040348-05	Solid	Sampled: 04/17/19 17:30 /	P623-SB1-2-4	Herbicides (Sub) 05/01/19 17:30
Containers Supplied: <i></i>				
Sample ID: 9040348-06	Solid	Sampled: 04/17/19 17:45 /	P623-SB1-2-4	Herbicides (Sub) 05/01/19 17:45
Containers Supplied: <i></i>				

Released By <i>Taylor J</i>	Date <i>4.22.19</i>	Received By <i>AJF</i>	Date <i>4/23/19 9:46</i>
Released By <i>FedEx</i>	Date <i></i>	Received By <i>AJF</i>	Date <i>(4.8)</i>
Released By <i></i>	Date <i></i>	Received By <i></i>	Date <i></i>

Released By <i></i>	Date <i></i>	Received By <i></i>	Date <i></i>
Released By <i></i>	Date <i></i>	Received By <i></i>	Date <i></i>

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1904n/76

## SUBCONTRACT ORDER

Prism Laboratories, Inc.  
9040348

Certification: NELAC  USACE   
NC  SC  Other \_\_\_\_\_  
N/A

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 9040348-06	Solid	Sampled: 04/17/19 17:45		P623-SB4-2-4 (Continued)
Herbicides (Sub)		05/01/19 17:45		
Containers Supplied:				4 oz Glass Jar
Sample ID: 9040348-07	Solid	Sampled: 04/17/19 18:00		/ P623-SB4-10-12
Herbicides (Sub)		05/01/19 18:00		
Containers Supplied:				
Sample ID: 9040348-08	Solid	Sampled: 04/18/19 09:40		/ P623-SB5-0-2
Herbicides (Sub)		05/02/19 09:40		
Containers Supplied:				
Sample ID: 9040348-09	Solid	Sampled: 04/18/19 09:50		/ P623-SB6-0-2
Herbicides (Sub)		05/02/19 09:50		
Containers Supplied:				/
Sample ID: 9040348-10	Solid	Sampled: 04/18/19 10:00		/ P623-SB7-0-2
Herbicides (Sub)		05/02/19 10:00		
Containers Supplied:				/

Released By	John Y	Date	Received By	FedEx	Date
	FedEx				4/22/19 9:46
Released By		Date	Received By	AES	Date
					(4.1°)
Released By		Date	Received By		Date
Released By		Date	Received By		Date

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Page

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## Analytical Environmental Services, Inc

Date: 26-Apr-19

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB1-0-2
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-01
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 4:05:00 PM
<b>Lab ID:</b>	1904N76-001A	<b>Matrix:</b>	Solid

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A (SW3550C)</b>									
2,4,5-T	BRL	8.2	45	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
2,4,5-TP (Silvex)	BRL	7.5	45	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
2,4-D	BRL	13	45	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
2,4-DB	BRL	7.9	230	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
Dalapon	BRL	7.7	450	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
Dicamba	BRL	7.3	45	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
Dichlorprop	BRL	9.5	45	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
Dinoseb	BRL	72	120	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
MCPA	BRL	1100	4500	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
MCPP	BRL	2800	4500	ug/Kg-dry	278037	1	04/25/2019 14:04	HB	
Surr: DCAA	99.3	0	44-120	%REC	278037	1	04/25/2019 14:04	HB	
<b>PERCENT MOISTURE D2216</b>									
Percent Moisture	26.8	0	0	wt%	R396594	1	04/24/2019 12:15	JW	

Qualifiers: \* Value exceeds maximum contaminant level

BRL Not Detected at MDL

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

&lt; Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB1-6-8
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-02
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 4:25:00 PM
<b>Lab ID:</b>	1904N76-002A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A</b> (SW3550C)										
2,4,5-T		BRL	7.8	43	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
2,4,5-TP (Silvex)		BRL	7.1	43	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
2,4-D		BRL	13	43	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
2,4-DB		BRL	7.5	220	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
Dalapon		BRL	7.4	430	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
Dicamba		BRL	6.9	43	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
Dichlorprop		BRL	9.1	43	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
Dinoseb		BRL	69	110	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
MCPA		BRL	1000	4300	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
MCPP		BRL	2600	4300	ug/Kg-dry	278037	I	04/25/2019 14:25	HB	
Surf: DCAA		76.7	0	44-120	%REC	278037	I	04/25/2019 14:25	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		22.9		0	0	wt%	R396594	I	04/24/2019 12:15	JW

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB2-2-4
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-03
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 5:10:00 PM
<b>Lab ID:</b>	1904N76-003A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A</b>										
2,4,5-T		BRL	7.4	41	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
2,4,5-TP (Silvex)		BRL	6.7	41	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
2,4-D		BRL	12	41	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
2,4-DB		BRL	7.1	210	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
Dalapon		BRL	7.0	410	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
Dicamba		BRL	6.6	41	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
Dichlorprop		BRL	8.6	41	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
Dinoseb		BRL	65	100	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
MCPA		BRL	970	4100	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
MCPP		BRL	2500	4100	ug/Kg-dry	278037	I	04/25/2019 17:11	HB	
Surf: DCAA		53.9	0	44-120	%REC	278037	I	04/25/2019 17:11	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		18.9	0	0	wt%	R396594	I	04/24/2019 12:15	JW	

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB2-8-10
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-04
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 5:20:00 PM
<b>Lab ID:</b>	1904N76-004A	<b>Matrix:</b>	Solid

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A (SW3550C)</b>									
2,4,5-T	BRL	7.6	42	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
2,4,5-TP (Silvex)	BRL	6.9	42	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
2,4-D	BRL	12	42	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
2,4-DB	BRL	7.3	220	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
Dalapon	BRL	7.2	420	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
Dicamba	BRL	6.8	42	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
Dichlorprop	BRL	8.8	42	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
Dinoseb	BRL	67	110	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
MCPP	BRL	1000	4200	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
MCPP	BRL	2600	4200	ug/Kg-dry	278037	1	04/25/2019 15:07	HB	
Surr: DCAA	78.5	0	44-120	%REC	278037	1	04/25/2019 15:07	HB	
<b>PERCENT MOISTURE D2216</b>									
Percent Moisture	21.1	0	0	wt%	R396594	1	04/24/2019 12:15	JW	

Qualifiers: \* Value exceeds maximum contaminant level

BRL Not Detected at MDL

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

&gt; Greater than Result value

J Estimated value detected below Reporting Limit

&lt; Less than Result value

## Analytical Environmental Services, Inc

Date: 26-Apr-19

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB3-2-4
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-05
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 5:30:00 PM
<b>Lab ID:</b>	1904N76-005A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A</b>										
2,4,5-T		BRL	9.3	51	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
2,4,5-TP (Silvex)		BRL	8.5	51	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
2,4-D		BRL	15	51	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
2,4-DB		BRL	9.0	260	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
Dalapon		BRL	8.8	510	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
Dicamba		BRL	8.3	51	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
Dichlorprop		BRL	11	51	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
Dinoseb		BRL	82	130	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
MCPA		BRL	1200	5100	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
MCPP		BRL	3100	5100	ug/Kg-dry	278037	1	04/25/2019 15:28	HB	
Surr: DCAA		74.5	0	44-120	%REC	278037	1	04/25/2019 15:28	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		35.6	0	0	wt%	R396594	1	04/24/2019 12:15	JW	

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB4-2-4
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-06
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 5:45:00 PM
<b>Lab ID:</b>	1904N76-006A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A</b>										
2,4,5-T		BRL	7.0	39	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
2,4,5-TP (Silvex)		BRL	6.4	39	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
2,4-D		BRL	11	39	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
2,4-DB		BRL	6.8	200	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
Dalapon		BRL	6.7	390	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
Dicamba		BRL	6.3	39	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
Dichlorprop		BRL	8.2	39	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
Dinoseb		BRL	62	100	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
MCPP		BRL	930	3900	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
MCPP		BRL	2400	3900	ug/Kg-dry	278037	I	04/25/2019 15:49	HB	
Surr: DCAA		89.1	0	44-120	%REC	278037	I	04/25/2019 15:49	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		15.1		0	0	wt%	R396594	I	04/24/2019 12:15	JW

Qualifiers: \* Value exceeds maximum contaminant level

E Estimated value above quantitation range

BRL Not Detected at MDL

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

&gt; Greater than Result value

N Analyte not NELAC certified

J Estimated value detected below Reporting Limit

B Analyte detected in the associated method blank

&lt; Less than Result value

## Analytical Environmental Services, Inc

Date: 26-Apr-19

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB4-10-12
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-07
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/17/2019 6:00:00 PM
<b>Lab ID:</b>	1904N76-007A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A (SW3550C)</b>										
2,4,5-T		BRL	7.7	43	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
2,4,5-TP (Silvex)		BRL	7.1	43	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
2,4-D		BRL	13	43	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
2,4-DB		BRL	7.5	220	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
Dalapon		BRL	7.3	430	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
Dicamba		BRL	6.9	43	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
Dichlorprop		BRL	9.0	43	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
Dinoseb		BRL	69	110	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
MCPP		BRL	1000	4300	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
MCPA		BRL	2600	4300	ug/Kg-dry	278037	I	04/25/2019 17:31	HB	
Surr: DCAA		76.7	0	44-120	%REC	278037	I	04/25/2019 17:31	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		22.8	0	0	wt%	R396594	I	04/24/2019 12:15	JW	

Qualifiers: \* Value exceeds maximum contaminant level

E Estimated value above quantitation range

BRL Not Detected at MDL

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

&gt; Greater than Result value

N Analyte not NELAC certified

J Estimated value detected below Reporting Limit

B Analyte detected in the associated method blank

&lt; Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB5-0-2
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-08
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/18/2019 9:40:00 AM
<b>Lab ID:</b>	1904N76-008A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A</b>										
(SW3550C)										
2,4,5-T		BRL	7.7	43	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
2,4,5-TP (Silvex)		BRL	7.1	43	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
2,4-D		BRL	13	43	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
2,4-DB		BRL	7.5	220	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
Dalapon		BRL	7.3	430	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
Dicamba		BRL	6.9	43	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
Dichlorprop		BRL	9.0	43	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
Dinoseb		BRL	69	110	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
MCPA		BRL	1000	4300	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
MCPP		BRL	2600	4300	ug/Kg-dry	278037	1	04/25/2019 17:52	HB	
Surf: DCAA		74.3	0	44-120	%REC	278037	1	04/25/2019 17:52	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		22.8		0	0	wt%	R396594	1	04/24/2019 12:15	JW

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB6-0-2
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-09
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/18/2019 9:50:00 AM
<b>Lab ID:</b>	1904N76-009A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst	
<b>CHLORINATED HERBICIDES SW8151A</b>											
2,4,5-T		BRL		8.2	45	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
2,4,5-TP (Silvex)		BRL		7.5	45	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
2,4-D		BRL		13	45	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
2,4-DB		BRL		7.9	230	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
Dalapon		BRL		7.8	450	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
Dicamba		BRL		7.3	45	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
Dichlorprop		BRL		9.6	45	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
Dinoseb		BRL		73	120	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
MCPA		BRL		1100	4500	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
MCPP		BRL		2800	4500	ug/Kg-dry	278037	1	04/25/2019 18:55	HB	
Surr: DCAA				80.7	0	44-120	%REC	278037	1	04/25/2019 18:55	HB
<b>PERCENT MOISTURE D2216</b>											
Percent Moisture				27.1	0	0	wt%	R396594	1	04/24/2019 12:15	JW

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

<b>Client:</b>	Prism Laboratories	<b>Client Sample ID:</b>	P623-SB7-02
<b>Lab Order</b>	1904N76	<b>Tag Number:</b>	9040348-10
<b>Project Name:</b>	9040348	<b>Collection Date:</b>	4/18/2019 10:00:00 AM
<b>Lab ID:</b>	1904N76-010A	<b>Matrix:</b>	Solid

Analyses		Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED HERBICIDES SW8151A (SW3550C)</b>										
2,4,5-T		BRL	6.7	37	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
2,4,5-TP (Silvex)		BRL	6.1	37	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
2,4-D		BRL	11	37	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
2,4-DB		BRL	6.5	190	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
Dalapon		BRL	6.4	370	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
Dicamba		BRL	6.0	37	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
Dichlorprop		BRL	7.8	37	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
Dinoseb		BRL	59	95	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
MCPA		BRL	890	3700	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
MCPP		BRL	2300	3700	ug/Kg-dry	278037	I	04/25/2019 19:16	HB	
Surr: DCAA		73.1	0	44-120	%REC	278037	I	04/25/2019 19:16	HB	
<b>PERCENT MOISTURE D2216</b>										
Percent Moisture		10.9	0	0	wt%	R396594	I	04/24/2019 12:15	JW	

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Not Detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- > Greater than Result value
- J Estimated value detected below Reporting Limit
- < Less than Result value

**SAMPLE/COOLER RECEIPT CHECKLIST**1. Client Name: **Access Analytical, Inc.**AES Work Order Number: **1904N76**2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/coolers received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		SIGNATURE & DATE ONLY
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceed with standard TAT per Terms & Conditions. <input checked="" type="checkbox"/>	

13. Cooler 1 Temperature 4.8 °C      Cooler 2 Temperature    °C      Cooler 3 Temperature    °C      Cooler 4 Temperature    °C14. Cooler 5 Temperature    °C      Cooler 6 Temperature    °C      Cooler 7 Temperature    °C      Cooler 8 Temperature    °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials).

MJ 4/23/19

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials).

EW 4/23/19

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
29. Containers meet preservation guidelines?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil &amp; Grease/TPH.

I certify that I have completed sections 28-30 (dated initials).

EW 4/23/19

Client: Prism Laboratories  
 Project Name: 9040348  
 Workorder: 1904N76

## ANALYTICAL QC SUMMARY REPORT

BatchID: 278037

Sample ID: MB-278037	Client ID:		Units: ug/Kg	Prep Date: 04/25/2019	Run No: 396813
SampleType: MBLK	TestCode: CHLORINATED HERBICIDES SW8151A		BatchID: 278037	Analysis Date: 04/25/2019	Seq No: 8887613
<b>Analyte</b> <b>Result</b> <b>RPT Limit</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>Low Limit</b> <b>High Limit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPD Limit</b> <b>Qual</b>					

2,4,5-T	BRL	33									
2,4,5-TP (Silvex)	BRL	33									
2,4-D	BRL	33									
2,4-DB	BRL	170									
Dalapon	BRL	330									
Dicamba	BRL	33									
Dichlorprop	BRL	33									
Dinoseb	BRL	85									
MCPA	BRL	3300									
MCPP	BRL	3300									
Surr: DCAA	135.3	0	166.7		81.2	44	120				

Sample ID: LCS-278037	Client ID:		Units: ug/Kg	Prep Date: 04/25/2019	Run No: 396813
SampleType: LCS	TestCode: CHLORINATED HERBICIDES SW8151A		BatchID: 278037	Analysis Date: 04/25/2019	Seq No: 8887616
<b>Analyte</b> <b>Result</b> <b>RPT Limit</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>Low Limit</b> <b>High Limit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPD Limit</b> <b>Qual</b>					

2,4,5-T	147.8	33	166.7		88.7	51.9	120				
2,4,5-TP (Silvex)	147.9	33	166.7		88.7	52.6	120				
2,4-D	145.7	33	166.7		87.4	50	120				
Dicamba	144.0	33	166.7		86.4	50.4	120				
Dichlorprop	142.4	33	166.7		85.4	50.6	121				
Surr: DCAA	143.0	0	166.7		85.8	44	120				

Sample ID: 1904N76-008AMS	Client ID: P623-SB5-0-2		Units: ug/Kg-dry	Prep Date: 04/25/2019	Run No: 396813
SampleType: MS	TestCode: CHLORINATED HERBICIDES SW8151A		BatchID: 278037	Analysis Date: 04/25/2019	Seq No: 8887629
<b>Analyte</b> <b>Result</b> <b>RPT Limit</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>Low Limit</b> <b>High Limit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPD Limit</b> <b>Qual</b>					

2,4,5-T	195.5	43	215.4		90.7	43.8	121				
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Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Prism Laboratories  
 Project Name: 9040348  
 Workorder: 1904N76

## ANALYTICAL QC SUMMARY REPORT

BatchID: 278037

Sample ID: 1904N76-008AMS	Client ID: P623-SB5-0-2				Units: ug/Kg-dry	Prep Date: 04/25/2019	Run No: 396813				
SampleType: MS	TestCode: CHLORINATED HERBICIDES SW8151A				BatchID: 278037	Analysis Date: 04/25/2019	Seq No: 8887629				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-TP (Silvex)	179.0	43	215.4		83.1	49.1	120				
2,4-D	175.0	43	215.4		81.2	40.2	130				
Dicamba	169.1	43	215.4		78.5	46.9	120				
Dichlorprop	169.7	43	215.4		78.8	41	120				
Surr: DCAA	169.4	0	215.4		78.6	44	120				

Sample ID: 1904N76-008AMSD	Client ID: P623-SB5-0-2				Units: ug/Kg-dry	Prep Date: 04/25/2019	Run No: 396813				
SampleType: MSD	TestCode: CHLORINATED HERBICIDES SW8151A				BatchID: 278037	Analysis Date: 04/25/2019	Seq No: 8887630				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-T	182.2	43	215.8		84.4	43.8	121	195.5	7.02	41.6	
2,4,5-TP (Silvex)	171.3	43	215.8		79.4	49.1	120	179.0	4.36	21.6	
2,4-D	166.2	43	215.8		77.0	40.2	130	175.0	5.16	25.4	
Dicamba	161.7	43	215.8		74.9	46.9	120	169.1	4.49	38.3	
Dichlorprop	160.1	43	215.8		74.2	41	120	169.7	5.84	41.3	
Surr: DCAA	163.6	0	215.8		75.8	44	120	169.4	0	0	

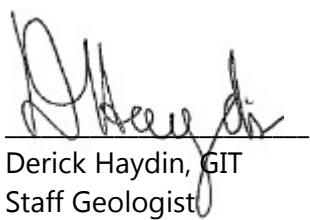
Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



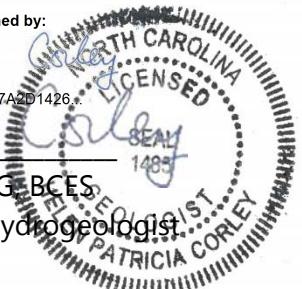
**North Carolina Department of Transportation**  
**Preliminary Site Assessment**  
**State Project: R-2707D**  
**WBS Element: 34497.1.2**  
**Cleveland County**

**Parcel 625**  
**Ronald Keith Church**  
**1822, 1826, and 1831 Lowman Road**  
**Shelby, North Carolina**  
**May 13, 2019**

**Wood Environment & Infrastructure Solutions, Inc.**  
**Project: 1883R2707**



Derick Haydin, GIT  
Staff Geologist

DocuSigned by:  
 Helen Corley  
3C9BAB67A2D1426  
  
Helen Corley, LG-BCES  
Senior Assoc. Hydrogeologist  
PATRICIA CORLEY

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- Figure 1      Vicinity Map  
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## **APPENDICES**

- Appendix A    Photographic Log  
Appendix B    Boring Logs  
Appendix C    On-site UVF Hydrocarbon Analytical Results  
Appendix D    Laboratory Analytical Report and Chain-of-Custody Form

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## **1.0 INTRODUCTION**

In response to the North Carolina Department of Transportation (NCDOT) Request for Proposal, dated March 27, 2019, Wood Environment and Infrastructure Solutions, Inc. (Wood) has performed a Preliminary Site Assessment (PSA) for Parcel 625. The investigation was conducted in accordance with Wood's Technical and Cost proposal dated April 5, 2019 and revised April 11, 2019. NCDOT contracted Wood to perform the PSA at the parcel, within the area to be affected by future road construction activities, in order to identify potential impacts from the former use of the property.

The parcel is located at 1822, 1826, and 1831 Lowman Road along the northern and southern side of Lowman Road as shown on the Vicinity Map, **Figure 1**. At the time of this PSA, the parcel was occupied with a junk yard (Church's Auto Parts). It is identified as Parcel 625, Ronald Keith Church property, (the Site) within the NCDOT R-2707D design file. The parcel is in Shelby of Cleveland County, North Carolina. The area of investigation within the parcel (located along the southern side of Lowman Road) is shown on **Figure 2**.

The following report describes our subsurface field investigation at the Site and presents on-site UVF soil analyses and off-site metals analysis to evaluate soil contamination within the Site.

### **1.1 Site History**

Based on our historical review, the salvage yard has been present since at least 1990. The Site is not identified on the North Carolina Department of Environmental Quality (NCDEQ) Underground Storage Tank (UST) Facility Database registry and no known groundwater incidents are identified at the Site. The Site is listed on the regulatory database as a RCRA non-generator (NCS000000850) with no RCRA violations reported.

### **1.2 Site Description**

The Site is located in a mixed-use commercial and residential area of Shelby in Cleveland County and covers approximately 15.47 acres.

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The majority of the Site is occupied by the junk yard associated with Church's Auto Parts. A photographic log of the property is included as **Appendix A**.

## **2.0 GEOLOGY**

### **2.1 Regional Geology**

The Site is located within the Inner Piedmont Belt of the Piedmont Physiographic Province of North Carolina. According to the 1985 State Geologic Map of North Carolina, the area is underlain by biotite gneiss and schist.

### **2.2 Site Geology**

Site geology was observed through the advancement of 13 shallow hand augered soil borings (P625-SB1 to P625-SB13). Figure 2 presents the boring locations and site layout. Boring depth targeted a total depth of one to three feet below ground surface (bgs). Soils encountered in the borings consisted mostly of red to tan to brown clayey sand and silty clays. Subsurface debris including concrete and metal auto parts was encountered in the area of P625-SB6, causing hand auger refusal between 0.5 and 1 ft. bgs at three attempted borings within an approximate 6 square-foot area. The extent of this subsurface debris is unknown as delineation was restricted due to junk cars and surficial concrete. Surficial petroleum staining was observed at soil boring P625-SB8 at 0-1ft. No petroleum odors were observed in the borings and groundwater was not encountered. Based on observations of topography of the Site vicinity, the groundwater flow direction is inferred to be generally to the southeast. Boring logs are presented in **Appendix B**.

## **3.0 FIELD ACTIVITIES**

### **3.1 Preliminary Activities**

Prior to commencing field sampling activities at the Site, several tasks were accomplished in preparation for the subsurface investigation. A Health and Safety Plan (HASP) was created including the Site-specific health and safety information necessary for the field activities.

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North Carolina 811 was contacted on April 9, 2019 to report the proposed sampling activities and subsequently notify all affected utilities for the parcel. RED Lab instrumentation was scheduled for the use in the on-site UVF analysis.

Wood understands that acquisition of the right-of-way is necessary for the construction of the US 74 – Shelby Bypass. Boring locations were strategically placed within the parcel to maximize the opportunity to encounter potential contaminated soil.

### **3.2 Site Reconnaissance**

Wood personnel performed a Site reconnaissance with property owner notification on April 9, 2019. During the Site reconnaissance, the area was visually examined for the presence of any areas/obstructions that could potentially affect the subsurface investigation. During the site reconnaissance a junk yard associated with Church's Auto Parts was observed.

### **3.3 Soil Sampling**

On April 15, 2019, Wood personnel advanced 13 soil borings via a stainless-steel hand auger across the area of investigation to depths ranging from one to three feet bgs. Borings P625-SB11 and P625-SB12 were located south of the junk car area in the woods, while the rest of the soil borings were located near the junk cars and/or proposed drainage features.

The purpose of the soil sampling was to determine if a petroleum release had impacted the Site and if so, to estimate the volume of impacted soil that might require special handling during NCDOT construction activities. Soil sampling was performed utilizing a stainless-steel hand auger accompanied by field screening. The hand auger was decontaminated between boring locations using a Liquinox® wash and distilled water rinse. Wood conducted field screening for volatile organic compounds (VOCs) of the soil borings with a photoionization detector (PID). The soil borings were screened with the PID at approximate one-foot intervals. A portion of the interval of the soil boring exhibiting the highest PID reading was retained for analysis of total petroleum hydrocarbons (TPH), diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylene (BTEX), total aromatics, and polycyclic aromatic hydrocarbons (PAH) soil via on-site ultraviolet fluorescence (UVF).

The remaining portion of the interval of the soil boring exhibiting the highest PID reading was retained for off-site laboratory analysis and placed in laboratory provided containers and immediately placed on ice. The samples were delivered under standard chain-of-custody protocol via courier to Prism Laboratories, Inc. in Charlotte, North Carolina and analyzed for eight Resource Conservation and Recovery Act (RCRA) metals via EPA methods 6010/7471 by Prism Laboratories, Inc. (Prism) in Charlotte, North Carolina. Thirteen total samples were collected from the site from the borings for UVF on-site analysis and eight RCRA Metals off-site analysis.

## 4.0 SOIL SAMPLING RESULTS

Based on PID field screening and UVF hydrocarbon analysis from April 15, 2019, evidence of petroleum hydrocarbon impacts was not identified above the NCDEQ Action level of 100 mg/kg for DRO and 50 mg/kg for GRO within the area of investigation.

### 4.1 Soil Screening and UVF Analyses

PID readings for the 13 borings ranged from 3.7 parts per million (ppm) in sample P625-SB8-1 collected between the ground surface and one foot bgs to 7.1 ppm in sample P625-SB6-1 collected between the ground surface and one foot bgs. The PID field screening results are summarized in **Table 1** and provided on the boring logs in Appendix B.

Results from the on-site UVF petroleum soil analyses are presented in **Table 2**, with instrument generated tables in **Appendix C**. Several categories of analyses were measured such as: DRO, GRO, TPH, PAHs, and total aromatics. **Figure 3** presents the GRO and DRO results at each boring.

Elevated TPH values above the NCDEQ Action Limit of 50 milligrams per kilogram (mg/kg) for GRO or 100 mg/kg for DRO were not detected in the 13 samples collected from the borings advanced at the Site. GRO was detected in three samples (P625-SB8-1, P625-SB9-1, P625-SB10-2) ranging from 0.73 mg/kg in P625-SB9-1 to 4.1 mg/kg in P625-SB10-2, while DRO was detected in three samples (P625-SB8-1, P625-SB9-1, P625-SB10-2) ranging from

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0.26 mg/kg in P625-SB9-1 to 2.1 in P625-SB8-1. The hydrocarbon results from the QED QROS Hydrocarbon Analyzer are provided in Appendix C.

## 4.2 Off-site Laboratory Analyses

The laboratory analytical report and chain-of-custody form for the off-site soil sample analyses conducted by Prism is included in **Appendix D**. The results of the 13 soil samples analyzed for eight RCRA Metals by Prism are summarized in **Table 3** as well as below:

- Concentrations of arsenic, barium, cadmium, total chromium and lead were identified in each of the 13 soil samples. In addition, concentrations of mercury were identified in nine of the 13 soil samples. One sample had a J-flagged mercury concentration, indicating the values were identified above the method detection limit but below the reporting limit and is considered an estimate. One concentration of selenium was identified but was J-flagged. Cadmium concentrations were identified in each sample but were J-flagged.
- The concentrations of arsenic identified in each sample ranged from 3.5 mg/kg (P625-SB4) to 9.3 mg/kg (P625-SB2) and exceeded the EPA Composite Worker Soil Carcinogenic Target of  $1e^{-06}$  (TR) Regional Screening Level (RSL) for arsenic of 3.0 mg/kg, with the exception of sample P625-SB11 (2.3 mg/kg).
- The concentrations of total chromium identified in each sample ranged from 14 mg/kg (P625-SB11) to 64 mg/kg (P625-SB2) and exceeded the NCDEQ Soil-to-Water Maximum Soil Contaminant Concentration (MSCC) for total chromium of 5.4 mg/kg. In addition, the concentrations exceeded the EPA Composite Worker Soil Carcinogenic TR RSL for chromium (VI) of 6.3 mg/kg. Note, separate EPA RSLs are established for chromium (III) and chromium (VI) variants. Speciated chromium samples were not analyzed as part of this assessment. The EPA Composite Worker Soil Carcinogenic TR RSL for chromium (VI) of 6.3 was conservatively compared to these samples.
- The barium, cadmium, lead, mercury and selenium concentrations identified in the samples did not exceed their respective NCDEQ MSCCs or EPA RSLs.

---

## 5.0 CONCLUSIONS

Based on the Site observations, UVF analysis, and laboratory analysis, petroleum-impacted soil contamination was not identified above the NCDEQ Action level of 100 mg/kg for DRO and 50 mg/kg for GRO.

Concentrations of total chromium, identified in each of the soil samples, exceeded their respective NCDEQ Soil-to-Water MSCCs and EPA Composite Worker Soil Carcinogenic TR RSLs. In addition, the concentrations of arsenic identified exceeded the EPA Composite Worker Soil Carcinogenic TR RSLs in 12 of the 13 soil samples. However, the concentrations of arsenic and total chromium identified in the soil samples collected at the site are within the naturally occurring trace element content of soils as identified in the EPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW874 (dated April 1983), page 273, Table 6.46. Based on the absence of petroleum-impacted soils identified at the site and that the concentrations of arsenic and total chromium were identified within naturally occurring background levels, Wood does not consider the metal concentrations to indicate a release has occurred at the Site.

Wood did encounter shallow subsurface debris in the vicinity of P625-SB6, though the debris was observed to be concrete and/or metal auto parts, and inert in nature. The majority of the site was observed to have poor erosion control measures, and previous surficial debris has likely been covered by sedimentation. Additional buried debris may exist in other areas where borings were not advanced or beneath vehicles currently stored on the Site.

## 6.0 RECOMMENDATIONS

Based on these PSA results, Wood does not recommend further soil assessment in the area of investigation; however, once vehicles have been removed geophysics may be considered to determine extent of buried debris. Grading and construction contractors should be made aware of the potential for encountering subsurface debris and asked to notify NCDOT if suspected non-inert debris is encountered during construction activities.

## **TABLES**

**Table 1: Summary of PID Screening Results**  
**Parcel 625 - Ronald Keith Church**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Boring ID	Depth of Sample Interval	PID Reading
P625-SB1-3	2-3	4.8
P625-SB2-2	1-2	4.5
P625-SB3-2	1-2	6.0
P625-SB4-1	0-1	4.6
P625-SB5-1	0-1	4.5
P625-SB6-1	0-1	7.1
P625-SB7-1	0-1	5.0
P625-SB8-1	0-1	3.7
P625-SB9-1	0-1	4.2
P625-SB10-2	1-2	4.2
P625-SB11-1	0-1	4.0
P625-SB12-1	0-1	6.8
P625-SB13-1	0-1	3.8

**Notes:**

1. Samples collected on April 15, 2019
2. Depths shown in feet below ground surface (bgs)
3. PID = Photoionization Detector
4. PID readings shown in parts per million (ppm)

Prepared By/Date: \_\_\_\_\_ RPD 4/29/19

Checked By/Date: \_\_\_\_\_ DRH 5/6/19

**Table 2: Summary of UVF Petroleum Soil Results**  
**Parcel 625 - Ronald Keith Church**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

<b>Sample ID Number</b>	<b>Sample Depth</b>	<b>BTEX</b>	<b>GRO</b>	<b>DRO</b>	<b>PAHs</b>
P625-SB1-3	2-3	<0.51	<0.51	<0.2	<0.01
P625-SB2-2	1-2	<0.76	<0.76	<0.3	<0.02
P625-SB3-2	1-2	<0.73	<0.73	<0.29	<0.01
P625-SB4-1	0-1	<0.39	<0.39	<0.15	<0.008
P625-SB5-1	0-1	<0.62	<0.62	<0.25	<0.01
P625-SB6-1	0-1	<0.63	<0.63	<0.25	0.005
P625-SB7-1	0-1	<0.51	<0.51	<0.2	<0.01
P625-SB8-1	0-1	<0.5	1.7	2.1	0.08
P625-SB9-1	0-1	<0.49	0.73	0.26	0.03
P625-SB10-2	1-2	<1.1	4.1	1.2	0.05
P625-SB11-1	0-1	<0.55	<0.55	<0.22	<0.01
P625-SB12-1	0-1	<0.59	<0.59	<0.24	<0.01
P625-SB13-1	0-1	<0.37	<0.37	<0.15	<0.007
<b>NC State Action Level</b>		<b>N/A</b>	<b>50</b>	<b>100</b>	<b>N/A</b>

**Notes:**

1. Samples collected on April 15, 2019
2. Depths shown in feet below ground surface (bgs)
3. Concentrations shown in milligrams per kilogram (mg/kg)
4. BTEX = Benzene, toluene, ethylbenzene, xylene
5. GRO = Gasoline Range Organics
6. DRO = Diesel Range Organics
7. PAHs = Polycyclic aromatic hydrocarbons
8. N/A = Not applicable
9. Bold values exceed respective NC State Action Level

Prepared By/Date: RPD 4/29/19

Checked By/Date: DRH 5/6/19

**Table 3: Summary of RCRA Metal Analytical Results**  
**Parcel 625 - Ronald Keith Church**  
**Shelby, North Carolina**  
**Wood Project: 1883R2707D**

Constituent	P625-SB1	P625-SB2	P625-SB3	P625-SB4	P625-SB5	P625-SB6	P625-SB7	P625-SB8	P625-SB9	P625-SB10	P625-SB11	P625-SB12	P625-SB13	Soil-to-Water MSCCs	Industrial/ Commercial MSCCs	EPA Composite Worker Soil Carcinogenic TR RSLs	EPA Composite Worker Soil Non- carcinogenic HI RSLs	Trace Element Content of Soils*
Sample Depth	2-3	1-2	1-2	0-1	0-1	0-1	0-1	0-1	1-2	0-1	0-1	0-1	0-1					
Arsenic	<u>6.6</u>	<u>9.3</u>	<u>6.8</u>	<u>3.5</u>	<u>6.4</u>	<u>4.4</u>	<u>5.8</u>	<u>3.6</u>	<u>3.8</u>	<u>4.4</u>	2.3	<u>4.6</u>	<u>5.0</u>	NE	NE	3.0	48	1-50
Barium	85	31	41	31	29	39	62	42	30	59	47	36	290	81,000	NE	22,000	100-3,000	
Cadmium	0.14J	0.20J	0.18J	0.084J	0.18J	0.14J	0.17J	0.096J	0.088J	0.10J	0.088J	0.19J	0.15J	NE	NE	9,300	98	0.01-0.7
Chromium	<b>42</b>	<b>64</b>	<b>42</b>	<b>22</b>	<b>42</b>	<b>28</b>	<b>38</b>	<b>24</b>	<b>37</b>	<b>25</b>	<b>14</b>	<b>28</b>	<b>37</b>	5.4	1,226	(III) NE (VI) 6.3	(III) 180,000 (VI) 350	1-1,000
Lead	35	36	33	29	23	21	33	23	19	19	17	32	27	270	400	NE	800	2-200
Mercury	0.12	0.18	0.085	<0.021	0.11	0.038J	0.11	<0.020	<0.021	0.039J	<0.021	0.096	0.072	NE	NE	NE	4.6	0.01-0.3
Selenium	<0.36	<0.39	0.36J	<0.34	<0.35	<0.33	<0.36	<0.32	<0.34	<0.34	<0.34	<0.37	<0.35	NE	NE	NE	580	0.1-2
Silver	<0.040	<0.044	<0.040	<0.038	<0.039	<0.037	<0.041	<0.036	<0.038	<0.038	<0.038	<0.042	<0.039	0.25	2,044	NE	580	0.01-5

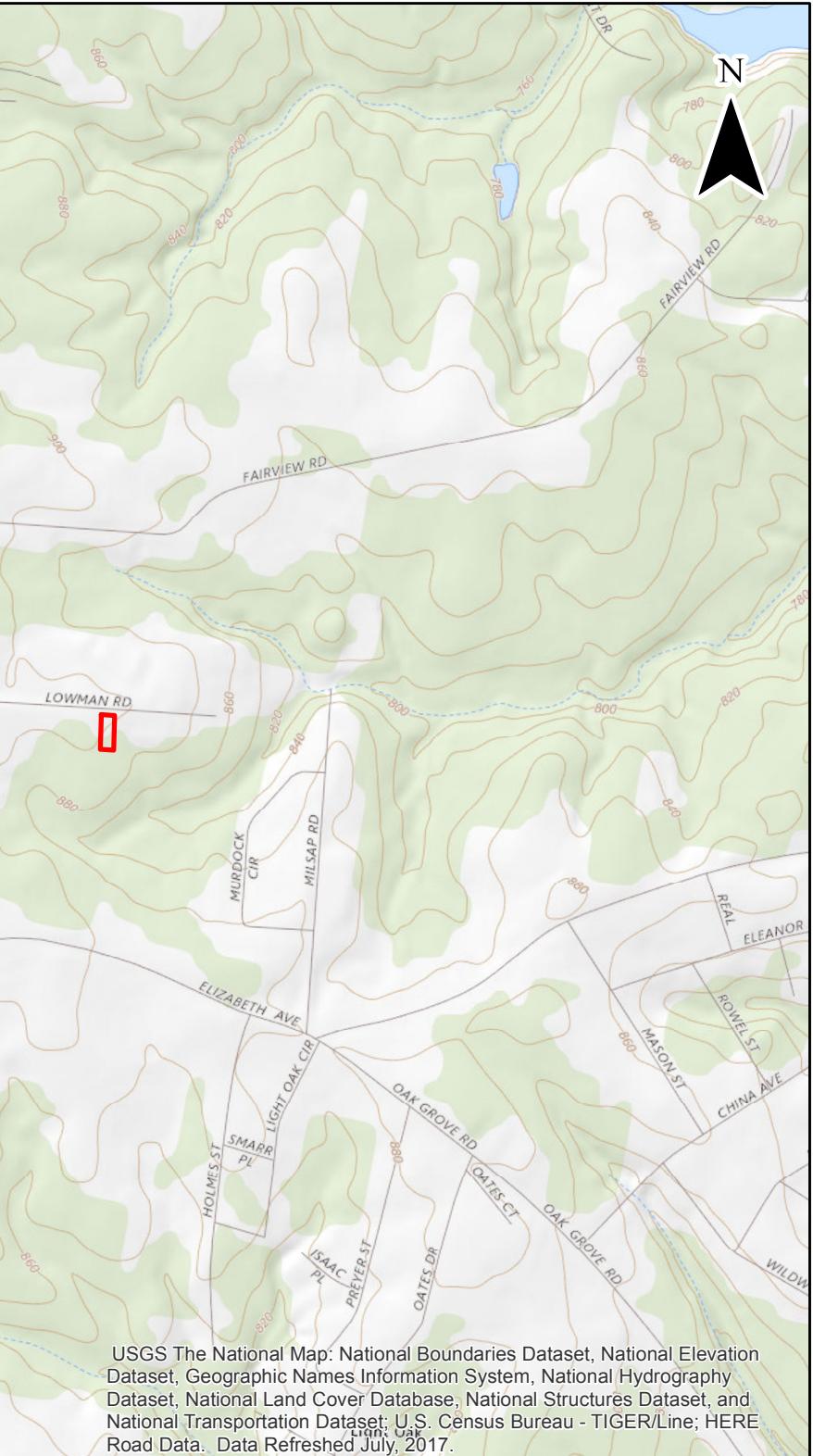
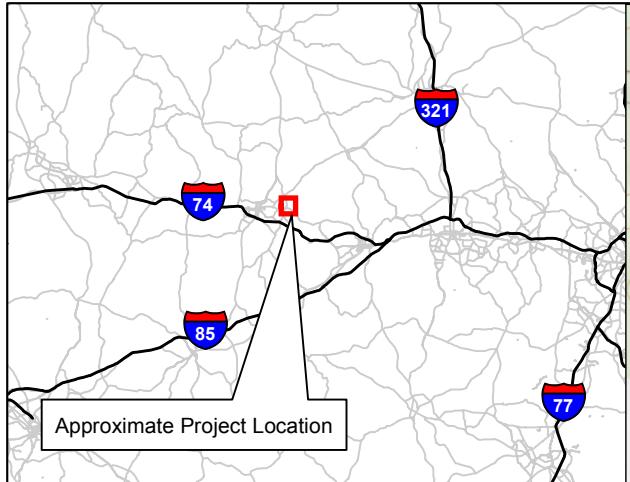
**Notes:**

1. Samples collected on April 15, 2019
2. Concentrations reported in milligrams per kilogram (mg/kg)
3. Depths shown in feet below ground surface (bgs)
4. MSCC = NCDEQ Division of Waste Management, Maximum Soil Contaminant Concentration Levels, dated April 2012
5. EPA RSLs = EPA Regional Screening Levels (RSLs), Carcinogenic Target Risk (TR) = 1e-06, Non-carcinogenic Hazard Index (HI) 0.1, dated November 2018
6. Bold value indicates concentration exceeds Soil-to-Water MSCC
7. Shaded value indicates concentration exceeds Industrial/Commercial MSCC
8. Underlined value indicates concentration exceeds EPA RSL for either Carcinogenic TR or Non-carcinogenic HI
9. J-flag indicates value was identified above method detection limit but below laboratory reporting limit, value is considered an estimate
10. Separate RSLs are established for Chromium (III) and (VI) variants. Speciated chromium samples were not analyzed during this assessment
11. NE = Not established

\*Reference: USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April 1983) page 273, Table 6.46

Prepared By/Date: DRH 5/7/19  
 Checked By/Date: RPD 5/7/19

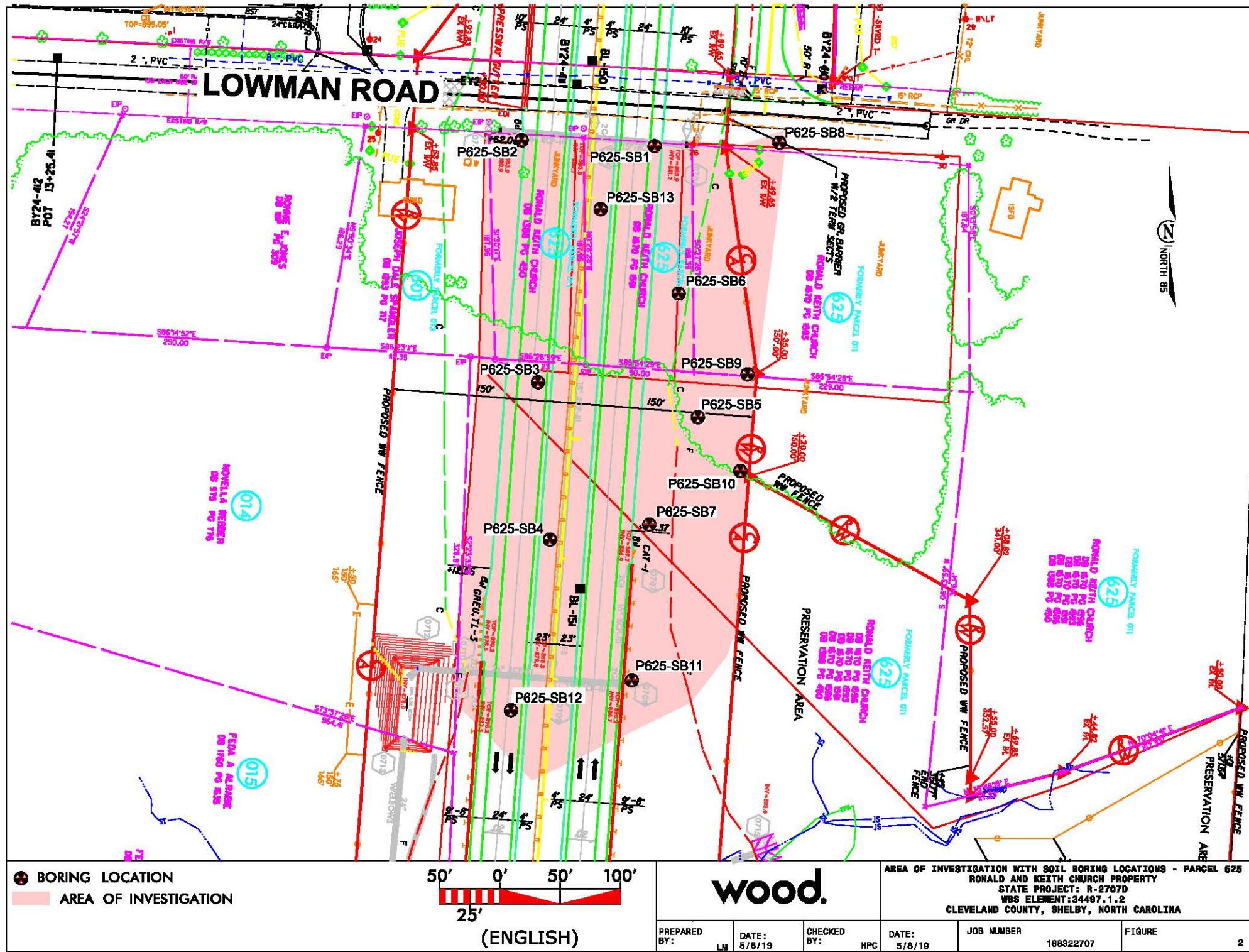
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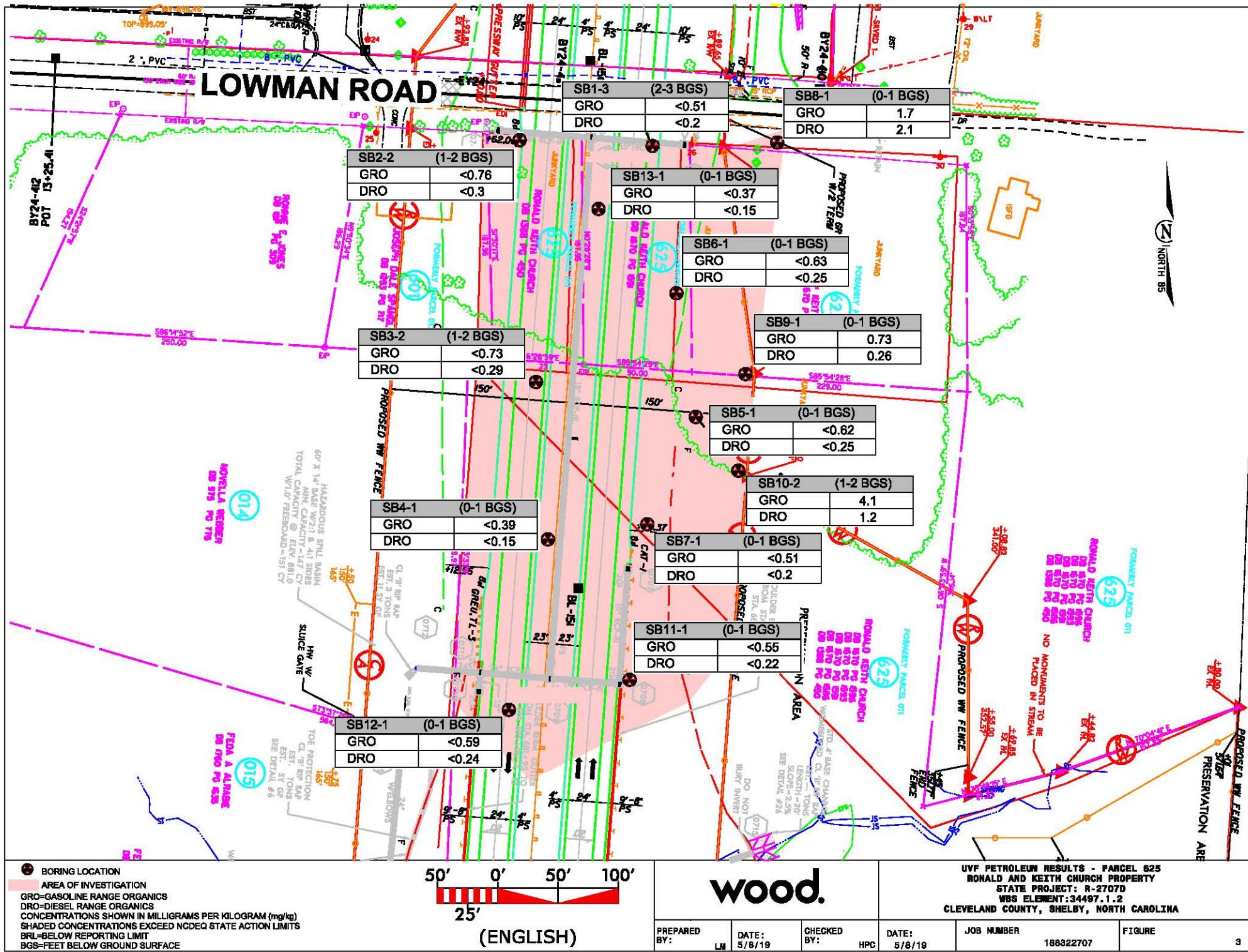


**wood.**

**SITE VICINITY**  
**R2707D - Parcel 625**  
**Ronald Keith Church**  
**1822 Lowman Road**  
**Shelby, North Carolina 28150**

Site Boundary





**APPENDIX A**

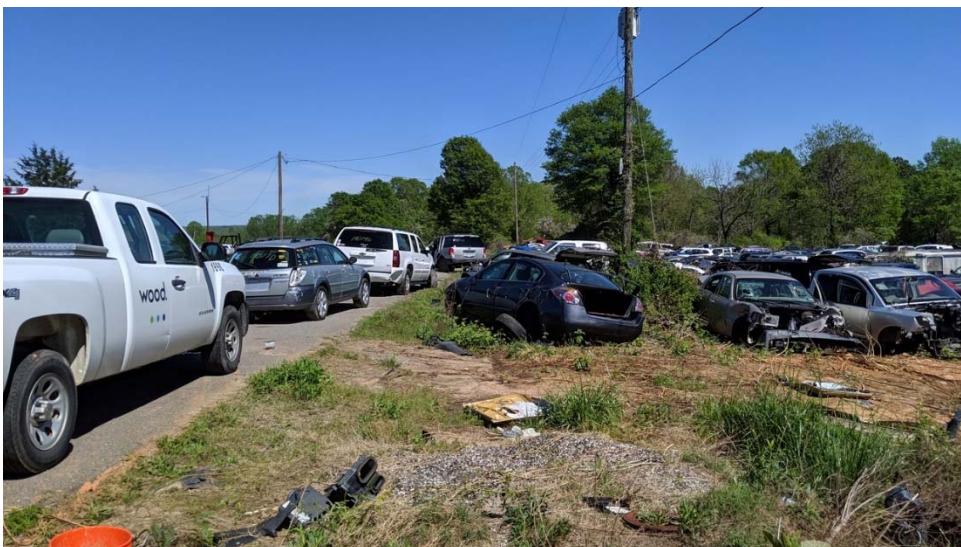
**PHOTOGRAPHIC LOG**



**PHOTO 1:**

View of Church's Auto Parts junk yard, facing south from Lowman Road.

Photo taken 4/15/19.



**PHOTO 2:**

View of junk cars and Lowman Road, facing east.

Photo taken 4/15/19.



**PHOTO 3:**

View of junk cars,  
facing south.

Photo taken was part  
of Wood's phase I  
assessment activities,  
8/2/18.

**APPENDIX B**  
**BORING LOGS**

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P625-SB1</b>	BORING DEPTH (ft)	<b>3</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/15/2019</b>	WEATHER CONDITIONS			<b>68°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>N/A</b>	DRILL RIG			<b>Hand Auger</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>	3.8	Brown clayey SAND, moist	
<b>2</b>	4.3	Red brown silty CLAY, moist, trace sand	
<b>3</b>	4.8	Red, orange, brown, white, silty clayey SAND, saprolite, some quartz pieces	
<b>4</b>		Boring terminated at 3ft.	
<b>5</b>		UVF sample taken at 2-3ft. Sample for off-site analysis taken at 2-3ft.	
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			
<b>19</b>			
<b>20</b>			
<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<u>P625-SB2</u>	BORING DEPTH (ft)	<u>2</u>	NUMBER OF PAGES	<u>1</u>
PROJECT #	<u>1883R2707</u>	PROJECT NAME			<u>NCDOT Shelby R-2707D</u>
DATE DRILLED	<u>4/15/2019</u>	WEATHER CONDITIONS			<u>68°F Sunny</u>
DRILLING SUB-CONTRACTOR	<u>N/A</u>	DRILL RIG			<u>Hand Auger</u>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<u>1</u>	<u>4.4</u>	Brown clayey SAND, moist	
<u>2</u>	<u>4.5</u>	Red brown silty CLAY, trace sand, moist	
<u>3</u>		Boring terminated at 2ft. UVF sample taken at 1-2ft.	
<u>4</u>		Sample for off-site analysis taken at 1-2ft.	
<u>5</u>			
<u>6</u>			
<u>7</u>			
<u>8</u>			
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<u>21</u>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P625-SB3	BORING DEPTH (ft)	3	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/15/2019	WEATHER CONDITIONS	68°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	5.8	Brown clayey SAND	
2	6.0	Red brown silty CLAY	
3	5.4	Red brown sandy SILT w/quartz grains	
4		Boring terminated at 3ft. UVF sample taken at 1-2ft. Sample for off-site analysis taken at 1-2ft.	
5			
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Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<u>P625-SB4</u>	BORING DEPTH (ft)	<u>2</u>	NUMBER OF PAGES	<u>1</u>
PROJECT #	<u>1883R2707</u>	PROJECT NAME			<u>NCDOT Shelby R-2707D</u>
DATE DRILLED	<u>4/15/2019</u>	WEATHER CONDITIONS			<u>68°F Sunny</u>
DRILLING SUB-CONTRACTOR	<u>N/A</u>	DRILL RIG			<u>Hand Auger</u>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<u>1</u>	<u>4.6</u>	Tan orange silty SAND w/ large gravel	
<u>2</u>	<u>3.8</u>	Tan orange medium-grained sand w/SILT	
<u>3</u>		Boring terminated at 2ft. UVF sample taken at 0-1ft.	
<u>4</u>		Sample for off-site analysis taken at 0-1ft.	
<u>5</u>			
<u>6</u>			
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<u>20</u>			
<u>21</u>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P625-SB5	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/15/2019	WEATHER CONDITIONS	68°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	4.5	Red silty CLAY, moist	
2	3.6	Red sandy SILT w/clay	
3		Boring terminated at 2ft. UVF sample taken at 0-1ft.	
4		Sample for off-site analysis taken at 0-1ft.	
5			
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Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<u>P625-SB6</u>	BORING DEPTH (ft)	<u>1</u>	NUMBER OF PAGES	<u>1</u>
PROJECT #	<u>1883R2707</u>			PROJECT NAME	<u>NCDOT Shelby R-2707D</u>
DATE DRILLED	<u>4/15/2019</u>			WEATHER CONDITIONS	<u>68°F Sunny</u>
DRILLING SUB-CONTRACTOR	<u>N/A</u>			DRILL RIG	<u>Hand Auger</u>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<u>1</u>	<u>7.1</u>	Red brown silty CLAY, moist, debris	
<u>2</u>		Boring terminated at 1ft. UVF sample taken at 0-1ft.	
<u>3</u>		Sample for off-site analysis taken at 0-1ft.	
<u>4</u>		Refusal at three attempted locations 0.5-1ft on debris.	
<u>5</u>			
<u>6</u>			
<u>7</u>			
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<u>20</u>			
<u>21</u>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P625-SB7	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/15/2019	WEATHER CONDITIONS	68°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	5.0		
2	4.8	Red brown silty CLAY, moist	
3			
4		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample for off-site analysis taken at 0-1ft.	
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Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P625-SB8	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/15/2019	WEATHER CONDITIONS	68°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	3.7	Brown clayey SAND, moist, oil staining	
2	2.6	Red brown silty CLAY, moist	
3		Boring terminated at 2ft. UVF sample taken at 0-1ft.	
4		Sample for off-site analysis taken at 0-1ft.	
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Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	P625-SB9	BORING DEPTH (ft)	2	NUMBER OF PAGES	1
PROJECT #	1883R2707	PROJECT NAME	NCDOT Shelby R-2707D		
DATE DRILLED	4/15/2019	WEATHER CONDITIONS	68°F Sunny		
DRILLING SUB-CONTRACTOR	N/A	DRILL RIG	Hand Auger		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
1	4.2		
2	3.7	Red brown sandy CLAY, moist	
3			
4		Boring terminated at 2ft. UVF sample taken at 0-1ft. Sample for off-site analysis taken at 0-1ft.	
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Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P625-SB10</b>	BORING DEPTH (ft)	<b>2</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME			<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/15/2019</b>	WEATHER CONDITIONS			<b>68°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>N/A</b>	DRILL RIG			<b>Hand Auger</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>	3.9	Red brown sandy CLAY, moist	
<b>2</b>	4.2	Red brown clayey SAND, moist	
<b>3</b>		Refusal at 2ft.	
<b>4</b>		UVF sample taken at 1-2ft. Sample for off-site analysis taken at 1-2ft.	
<b>5</b>			
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<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P625-SB11</b>	BORING DEPTH (ft)	<b>1</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>			PROJECT NAME	<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/15/2019</b>			WEATHER CONDITIONS	<b>68°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>N/A</b>			DRILL RIG	<b>Hand Auger</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>	4.0	Tan silty SAND, moist	
<b>2</b>		Boring terminated at 1ft. UVF sample taken at 0-1ft.	
<b>3</b>		Sample for off-site analysis taken at 0-1ft.	
<b>4</b>			
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<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P625-SB12</b>	BORING DEPTH (ft)	<b>1</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>			PROJECT NAME	<b>NCDOT Shelby R-2707D</b>
DATE DRILLED	<b>4/15/2019</b>			WEATHER CONDITIONS	<b>68°F Sunny</b>
DRILLING SUB-CONTRACTOR	<b>N/A</b>			DRILL RIG	<b>Hand Auger</b>

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>	6.8	Red brown silty CLAY, moist	
<b>2</b>		Boring terminated at 1ft. UVF sample taken at 0-1ft.	
<b>3</b>		Sample for off-site analysis taken at 0-1ft.	
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<b>21</b>			

Log Completed By: JRMPage: 1

**SOIL BORING FIELD WORKSHEET**

BORING #	<b>P625-SB13</b>	BORING DEPTH (ft)	<b>1</b>	NUMBER OF PAGES	<b>1</b>
PROJECT #	<b>1883R2707</b>	PROJECT NAME	<b>NCDOT Shelby R-2707D</b>		
DATE DRILLED	<b>4/15/2019</b>	WEATHER CONDITIONS	<b>68°F Sunny</b>		
DRILLING SUB-CONTRACTOR	<b>N/A</b>	DRILL RIG	<b>Hand Auger</b>		

DEPTH (ft bgs)	PID (ppm)	SOIL DESCRIPTION	SAMPLE INFO
<b>1</b>	3.8	Red brown silty CLAY, moist	
<b>2</b>		Boring terminated at 1ft. UVF sample taken at 0-1ft.	
<b>3</b>		Sample for off-site analysis taken at 0-1ft.	
<b>4</b>			
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Log Completed By: JRMPage: 1

**APPENDIX C**

**RESULTS FROM ON-SITE UVF SOIL ANALYSES**



## Hydrocarbon Analysis Results

**Client:** Wood Samples taken  
**Address:** 2801 Yorkmont Road Monday, April 15, 2019  
                   Charlotte, NC Samples extracted  
Monday, April 15, 2019

**Samples analysed**  
Monday, April 15, 2019

**Contact:** Helen Corley Operator  
Derick Haydin

**Project:** NCDOT Shelby

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	H09382
										C5 - C10	C10 - C18	C18		
Soil	P625-SB1-3	20.5	<0.51	<0.51	<0.2	<0.51	<0.01	<0.01	<0.006	0	0	0	PHC ND,(FCM)	
Soil	P625-SB2-2	30.5	<0.76	<0.76	<0.3	<0.76	<0.02	<0.02	<0.009	0	0	0	PHC ND,(FCM)	
Soil	P625-SB3-2	29.4	<0.73	<0.73	<0.29	<0.73	<0.01	<0.01	<0.009	0	0	0	PHC ND,(FCM)	
Soil	P625-SB4-1	15.5	<0.39	<0.39	<0.15	<0.39	<0.008	<0.008	<0.005	0	0	0	PHC ND,(FCM)	
Soil	P625-SB5-1	24.8	<0.62	<0.62	<0.25	<0.62	<0.01	<0.01	<0.007	0	0	0	PHC ND,(FCM)	
Soil	P625-SB6-1	25.0	<0.63	<0.63	<0.25	0.05	0.05	0.005	<0.008	0	84.6	15.4	Residual HC	
Soil	P625-SB7-1	20.3	<0.51	<0.51	<0.2	<0.51	<0.01	<0.01	<0.006	0	0	0	PHC ND,(FCM)	
Soil	P625-SB8-1	20.1	<0.5	1.7	2.1	3.8	1.3	0.08	<0.006	61.3	38.7	0	72.3%,(FCM)	
Soil	P625-SB9-1	19.6	<0.49	0.73	0.26	0.99	0.24	0.03	<0.006	78.1	20.1	1.7	Deg.Light.Fuel,(FCM)	
Soil	P625-SB10-2	22.5	<1.1	4.1	1.2	5.3	0.5	0.05	<0.007	86	14	0	63.9%,(FCM)	
	Initial Calibrator QC check				OK					Final FCM QC Check			OK	95.4%

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) = Modified Result.

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



## Hydrocarbon Analysis Results

**Client:** Wood

**Address:** 2801 Yorkmont Road  
Charlotte, NC

## Samples taken

Monday, April 15, 2019

## Samples extracted

Monday, April 15, 2019

## Samples analysed

Monday, April 15, 2019

Contact: Helen Corley

## Operator

Derick Haydin

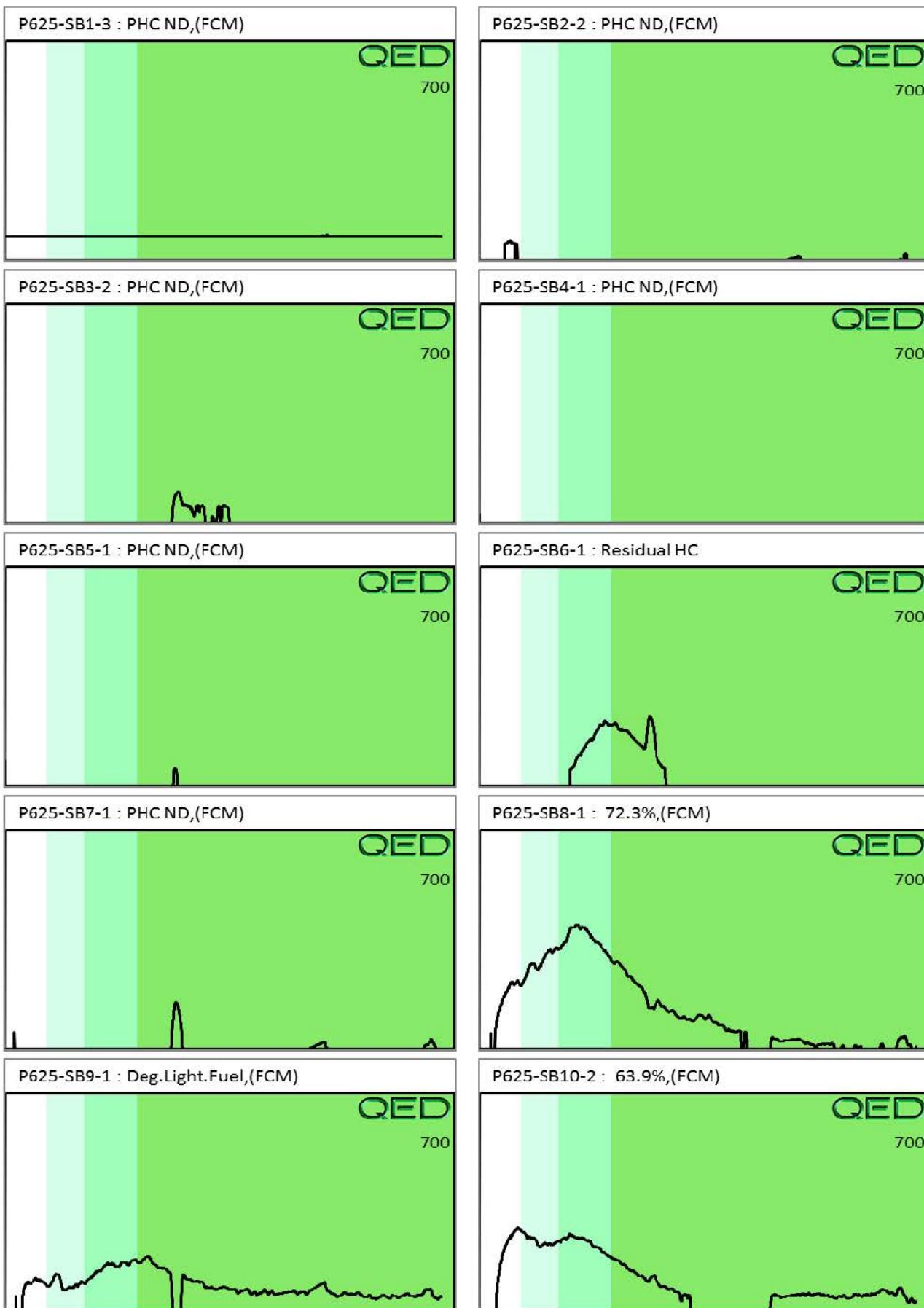
Project: NCDOT Shelby

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.

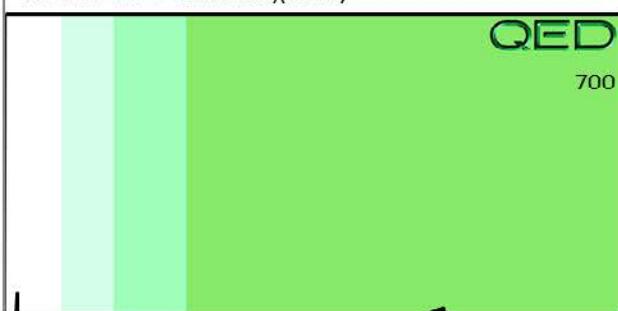
Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

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

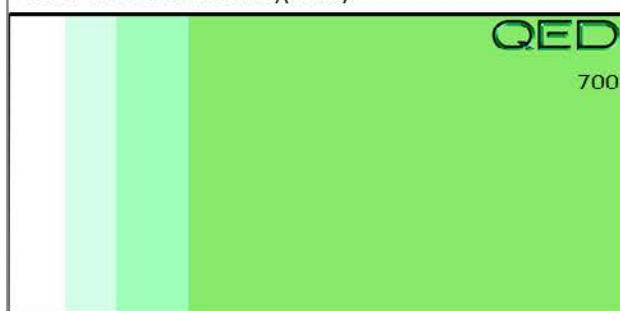
% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only.



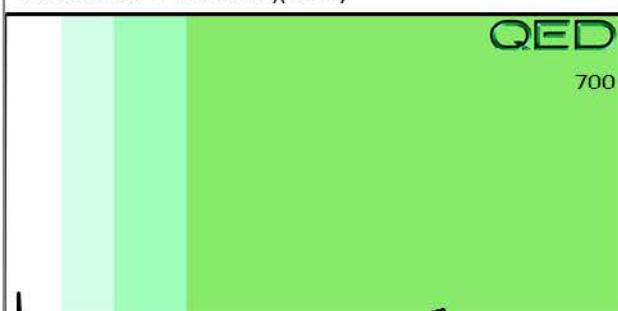
P625-SB11-1 : PHC ND,(FCM)



P625-SB13-1 : PHC ND,(FCM)



P625-SB12-1 : PHC ND,(FCM)



**APPENDIX D**

**LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY**

**FORM**



Full-Service Analytical &  
Environmental Solutions

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

## Case Narrative

5/6/19 15:21

Wood Environ. & Infrastructure Solutions (Charl)  
John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project: NCDOT Shelby R-2707 D&E  
Project No.: 1883R2707 Parcel 625  
Lab Submittal Date: 04/25/2019  
Prism Work Order: 9040401

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

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

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

Respectfully,

**PRISM LABORATORIES, INC.**

Robbi A. Jones  
President/Project Manager

Reviewed By Robbi A. Jones  
President/Project Manager

### Data Qualifiers Key Reference:

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- M Matrix spike outside of the control limits.
- U Not Detected at the MDL
- 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.

This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.



Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P625-SB1	9040401-01	Solid	04/15/19 15:00	04/25/19 12:11
P625-SB2	9040401-02	Solid	04/15/19 15:05	04/25/19 12:11
P625-SB3	9040401-03	Solid	04/15/19 15:10	04/25/19 12:11
P625-SB4	9040401-04	Solid	04/15/19 15:15	04/25/19 12:11
P625-SB5	9040401-05	Solid	04/15/19 15:20	04/25/19 12:11
P625-SB6	9040401-06	Solid	04/15/19 15:25	04/25/19 12:11
P625-SB7	9040401-07	Solid	04/15/19 15:30	04/25/19 12:11
P625-SB8	9040401-08	Solid	04/15/19 15:35	04/25/19 12:11
P625-SB9	9040401-09	Solid	04/15/19 15:40	04/25/19 12:11
P625-SB10	9040401-10	Solid	04/15/19 15:45	04/25/19 12:11
P625-SB11	9040401-11	Solid	04/15/19 15:50	04/25/19 12:11
P625-SB12	9040401-12	Solid	04/15/19 15:55	04/25/19 12:11
P625-SB13	9040401-13	Solid	04/15/19 16:00	04/25/19 12:11

Samples were received in good condition at 2.9 degrees C unless otherwise noted.

## Summary of Detections

05/06/2019

Prism Work Order: 9040401

Prism ID	Client ID	Parameter	Method	Result	Units
9040401-01	P625-SB1	Mercury	7471B	0.12	mg/kg dry
9040401-01	P625-SB1	Arsenic	6010D	6.6	mg/kg dry
9040401-01	P625-SB1	Barium	6010D	85	mg/kg dry
9040401-01	P625-SB1	Cadmium	6010D	0.14	J mg/kg dry
9040401-01	P625-SB1	Chromium	6010D	42	mg/kg dry
9040401-01	P625-SB1	Lead	6010D	35	mg/kg dry
9040401-02	P625-SB2	Mercury	7471B	0.18	mg/kg dry
9040401-02	P625-SB2	Arsenic	6010D	9.3	mg/kg dry
9040401-02	P625-SB2	Barium	6010D	31	mg/kg dry
9040401-02	P625-SB2	Cadmium	6010D	0.20	J mg/kg dry
9040401-02	P625-SB2	Chromium	6010D	64	mg/kg dry
9040401-02	P625-SB2	Lead	6010D	36	mg/kg dry
9040401-03	P625-SB3	Mercury	7471B	0.085	mg/kg dry
9040401-03	P625-SB3	Arsenic	6010D	6.8	mg/kg dry
9040401-03	P625-SB3	Barium	6010D	41	mg/kg dry
9040401-03	P625-SB3	Cadmium	6010D	0.18	J mg/kg dry
9040401-03	P625-SB3	Chromium	6010D	42	mg/kg dry
9040401-03	P625-SB3	Lead	6010D	33	mg/kg dry
9040401-03	P625-SB3	Selenium	6010D	0.36	J mg/kg dry
9040401-04	P625-SB4	Arsenic	6010D	3.5	mg/kg dry
9040401-04	P625-SB4	Barium	6010D	31	mg/kg dry
9040401-04	P625-SB4	Cadmium	6010D	0.084	J mg/kg dry
9040401-04	P625-SB4	Chromium	6010D	22	mg/kg dry
9040401-04	P625-SB4	Lead	6010D	29	mg/kg dry
9040401-05	P625-SB5	Mercury	7471B	0.11	mg/kg dry
9040401-05	P625-SB5	Arsenic	6010D	6.4	mg/kg dry
9040401-05	P625-SB5	Barium	6010D	29	mg/kg dry
9040401-05	P625-SB5	Cadmium	6010D	0.18	J mg/kg dry
9040401-05	P625-SB5	Chromium	6010D	42	mg/kg dry
9040401-05	P625-SB5	Lead	6010D	23	mg/kg dry
9040401-06	P625-SB6	Mercury	7471B	0.038	J mg/kg dry
9040401-06	P625-SB6	Arsenic	6010D	4.4	mg/kg dry
9040401-06	P625-SB6	Barium	6010D	39	mg/kg dry
9040401-06	P625-SB6	Cadmium	6010D	0.14	J mg/kg dry
9040401-06	P625-SB6	Chromium	6010D	28	mg/kg dry
9040401-06	P625-SB6	Lead	6010D	21	mg/kg dry
9040401-07	P625-SB7	Mercury	7471B	0.11	mg/kg dry
9040401-07	P625-SB7	Arsenic	6010D	5.8	mg/kg dry
9040401-07	P625-SB7	Barium	6010D	62	mg/kg dry
9040401-07	P625-SB7	Cadmium	6010D	0.17	J mg/kg dry
9040401-07	P625-SB7	Chromium	6010D	38	mg/kg dry
9040401-07	P625-SB7	Lead	6010D	33	mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result	Units
9040401-08	P625-SB8	Arsenic	6010D	3.6	mg/kg dry
9040401-08	P625-SB8	Barium	6010D	62	mg/kg dry
9040401-08	P625-SB8	Cadmium	6010D	0.096	J mg/kg dry
9040401-08	P625-SB8	Chromium	6010D	24	mg/kg dry
9040401-08	P625-SB8	Lead	6010D	23	mg/kg dry
9040401-09	P625-SB9	Arsenic	6010D	3.8	mg/kg dry
9040401-09	P625-SB9	Barium	6010D	42	mg/kg dry
9040401-09	P625-SB9	Cadmium	6010D	0.088	J mg/kg dry
9040401-09	P625-SB9	Chromium	6010D	37	mg/kg dry
9040401-09	P625-SB9	Lead	6010D	19	mg/kg dry
9040401-10	P625-SB10	Mercury	7471B	0.039	J mg/kg dry
9040401-10	P625-SB10	Arsenic	6010D	4.4	mg/kg dry
9040401-10	P625-SB10	Barium	6010D	30	mg/kg dry
9040401-10	P625-SB10	Cadmium	6010D	0.10	J mg/kg dry
9040401-10	P625-SB10	Chromium	6010D	25	mg/kg dry
9040401-10	P625-SB10	Lead	6010D	19	mg/kg dry
9040401-11	P625-SB11	Arsenic	6010D	2.3	mg/kg dry
9040401-11	P625-SB11	Barium	6010D	59	mg/kg dry
9040401-11	P625-SB11	Cadmium	6010D	0.088	J mg/kg dry
9040401-11	P625-SB11	Chromium	6010D	14	mg/kg dry
9040401-11	P625-SB11	Lead	6010D	17	mg/kg dry
9040401-12	P625-SB12	Mercury	7471B	0.096	mg/kg dry
9040401-12	P625-SB12	Arsenic	6010D	4.6	mg/kg dry
9040401-12	P625-SB12	Barium	6010D	47	mg/kg dry
9040401-12	P625-SB12	Cadmium	6010D	0.19	J mg/kg dry
9040401-12	P625-SB12	Chromium	6010D	28	mg/kg dry
9040401-12	P625-SB12	Lead	6010D	32	mg/kg dry
9040401-13	P625-SB13	Mercury	7471B	0.072	mg/kg dry
9040401-13	P625-SB13	Arsenic	6010D	5.0	mg/kg dry
9040401-13	P625-SB13	Barium	6010D	36	mg/kg dry
9040401-13	P625-SB13	Cadmium	6010D	0.15	J mg/kg dry
9040401-13	P625-SB13	Chromium	6010D	37	mg/kg dry
9040401-13	P625-SB13	Lead	6010D	27	mg/kg dry

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB1  
Prism Sample ID: 9040401-01  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:00  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	77.2	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.12	mg/kg dry	0.065	0.022	1	7471B	5/2/19 12:05	MMR	P9E0029
Arsenic	6.6	mg/kg dry	1.3	0.17	1	6010D	4/30/19 14:42	JAB	P9D0513
Barium	85	mg/kg dry	13	3.9	1	6010D	4/30/19 14:42	JAB	P9D0513
Cadmium	0.14 J	mg/kg dry	0.65	0.044	1	6010D	4/30/19 14:42	JAB	P9D0513
Chromium	42	mg/kg dry	1.3	0.098	1	6010D	4/30/19 14:42	JAB	P9D0513
Lead	35	mg/kg dry	1.3	0.22	1	6010D	4/30/19 14:42	JAB	P9D0513
Selenium	0.36 U	mg/kg dry	1.3	0.36	1	6010D	4/30/19 14:42	JAB	P9D0513
Silver	0.040 U	mg/kg dry	0.65	0.040	1	6010D	4/30/19 14:42	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB2  
Prism Sample ID: 9040401-02  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:05  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	70.4	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.18	mg/kg dry	0.071	0.025	1	7471B	5/2/19 12:56	MMR	P9E0029
Arsenic	9.3	mg/kg dry	1.4	0.19	1	6010D	4/30/19 15:05	JAB	P9D0513
Barium	31	mg/kg dry	14	4.3	1	6010D	4/30/19 15:05	JAB	P9D0513
Cadmium	0.20 J	mg/kg dry	0.71	0.048	1	6010D	4/30/19 15:05	JAB	P9D0513
Chromium	64	mg/kg dry	1.4	0.11	1	6010D	4/30/19 15:05	JAB	P9D0513
Lead	36	mg/kg dry	1.4	0.24	1	6010D	4/30/19 15:05	JAB	P9D0513
Selenium	0.39 U	mg/kg dry	1.4	0.39	1	6010D	4/30/19 15:05	JAB	P9D0513
Silver	0.044 U	mg/kg dry	0.71	0.044	1	6010D	4/30/19 15:05	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB3  
Prism Sample ID: 9040401-03  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:10  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	76.3	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.085	mg/kg dry	0.066	0.023	1	7471B	5/2/19 13:00	MMR	P9E0029
Arsenic	6.8	mg/kg dry	1.3	0.17	1	6010D	4/30/19 15:13	JAB	P9D0513
Barium	41	mg/kg dry	13	3.9	1	6010D	4/30/19 15:13	JAB	P9D0513
Cadmium	0.18 J	mg/kg dry	0.66	0.044	1	6010D	4/30/19 15:13	JAB	P9D0513
Chromium	42	mg/kg dry	1.3	0.099	1	6010D	4/30/19 15:13	JAB	P9D0513
Lead	33	mg/kg dry	1.3	0.22	1	6010D	4/30/19 15:13	JAB	P9D0513
Selenium	0.36 J	mg/kg dry	1.3	0.36	1	6010D	4/30/19 15:13	JAB	P9D0513
Silver	0.040 U	mg/kg dry	0.66	0.040	1	6010D	4/30/19 15:13	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB4  
Prism Sample ID: 9040401-04  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:15  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.6	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.021 U	mg/kg dry	0.062	0.021	1	7471B	5/2/19 13:18	MMR	P9E0029
Arsenic	3.5	mg/kg dry	1.2	0.16	1	6010D	4/30/19 15:22	JAB	P9D0513
Barium	31	mg/kg dry	12	3.7	1	6010D	4/30/19 15:22	JAB	P9D0513
Cadmium	0.084 J	mg/kg dry	0.62	0.042	1	6010D	4/30/19 15:22	JAB	P9D0513
Chromium	22	mg/kg dry	1.2	0.094	1	6010D	4/30/19 15:22	JAB	P9D0513
Lead	29	mg/kg dry	1.2	0.21	1	6010D	4/30/19 15:22	JAB	P9D0513
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/30/19 15:22	JAB	P9D0513
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/30/19 15:22	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB5  
Prism Sample ID: 9040401-05  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:20  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	79.4	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.11	mg/kg dry	0.063	0.022	1	7471B	5/2/19 13:23	MMR	P9E0029
Arsenic	6.4	mg/kg dry	1.3	0.17	1	6010D	4/30/19 15:30	JAB	P9D0513
Barium	29	mg/kg dry	13	3.8	1	6010D	4/30/19 15:30	JAB	P9D0513
Cadmium	0.18 J	mg/kg dry	0.63	0.043	1	6010D	4/30/19 15:30	JAB	P9D0513
Chromium	42	mg/kg dry	1.3	0.095	1	6010D	4/30/19 15:30	JAB	P9D0513
Lead	23	mg/kg dry	1.3	0.21	1	6010D	4/30/19 15:30	JAB	P9D0513
Selenium	0.35 U	mg/kg dry	1.3	0.35	1	6010D	4/30/19 15:30	JAB	P9D0513
Silver	0.039 U	mg/kg dry	0.63	0.039	1	6010D	4/30/19 15:30	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB6  
Prism Sample ID: 9040401-06  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:25  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	82.3	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.038 J	mg/kg dry	0.061	0.021	1	7471B	5/2/19 13:27	MMR	P9E0029
Arsenic	4.4	mg/kg dry	1.2	0.16	1	6010D	4/30/19 15:38	JAB	P9D0513
Barium	39	mg/kg dry	12	3.6	1	6010D	4/30/19 15:38	JAB	P9D0513
Cadmium	0.14 J	mg/kg dry	0.61	0.041	1	6010D	4/30/19 15:38	JAB	P9D0513
Chromium	28	mg/kg dry	1.2	0.092	1	6010D	4/30/19 15:38	JAB	P9D0513
Lead	21	mg/kg dry	1.2	0.20	1	6010D	4/30/19 15:38	JAB	P9D0513
Selenium	0.33 U	mg/kg dry	1.2	0.33	1	6010D	4/30/19 15:38	JAB	P9D0513
Silver	0.037 U	mg/kg dry	0.61	0.037	1	6010D	4/30/19 15:38	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB7  
Prism Sample ID: 9040401-07  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:30  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	75.5	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.11	mg/kg dry	0.066	0.023	1	7471B	5/2/19 13:36	MMR	P9E0029
Arsenic	5.8	mg/kg dry	1.3	0.17	1	6010D	4/30/19 15:46	JAB	P9D0513
Barium	62	mg/kg dry	13	4.0	1	6010D	4/30/19 15:46	JAB	P9D0513
Cadmium	0.17 J	mg/kg dry	0.66	0.045	1	6010D	4/30/19 15:46	JAB	P9D0513
Chromium	38	mg/kg dry	1.3	0.10	1	6010D	4/30/19 15:46	JAB	P9D0513
Lead	33	mg/kg dry	1.3	0.22	1	6010D	4/30/19 15:46	JAB	P9D0513
Selenium	0.36 U	mg/kg dry	1.3	0.36	1	6010D	4/30/19 15:46	JAB	P9D0513
Silver	0.041 U	mg/kg dry	0.66	0.041	1	6010D	4/30/19 15:46	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB8  
Prism Sample ID: 9040401-08  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:35  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	86.4	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.020 U	mg/kg dry	0.058	0.020	1	7471B	5/2/19 13:41	MMR	P9E0029
Arsenic	3.6	mg/kg dry	1.2	0.15	1	6010D	4/30/19 15:54	JAB	P9D0513
Barium	62	mg/kg dry	12	3.5	1	6010D	4/30/19 15:54	JAB	P9D0513
Cadmium	0.096 J	mg/kg dry	0.58	0.039	1	6010D	4/30/19 15:54	JAB	P9D0513
Chromium	24	mg/kg dry	1.2	0.088	1	6010D	4/30/19 15:54	JAB	P9D0513
Lead	23	mg/kg dry	1.2	0.19	1	6010D	4/30/19 15:54	JAB	P9D0513
Selenium	0.32 U	mg/kg dry	1.2	0.32	1	6010D	4/30/19 15:54	JAB	P9D0513
Silver	0.036 U	mg/kg dry	0.58	0.036	1	6010D	4/30/19 15:54	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB9  
Prism Sample ID: 9040401-09  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:40  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.9	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.021 U	mg/kg dry	0.062	0.021	1	7471B	5/2/19 13:45	MMR	P9E0029
Arsenic	3.8	mg/kg dry	1.2	0.16	1	6010D	4/30/19 16:02	JAB	P9D0513
Barium	42	mg/kg dry	12	3.7	1	6010D	4/30/19 16:02	JAB	P9D0513
Cadmium	0.088 J	mg/kg dry	0.62	0.042	1	6010D	4/30/19 16:02	JAB	P9D0513
Chromium	37	mg/kg dry	1.2	0.094	1	6010D	4/30/19 16:02	JAB	P9D0513
Lead	19	mg/kg dry	1.2	0.21	1	6010D	4/30/19 16:02	JAB	P9D0513
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/30/19 16:02	JAB	P9D0513
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/30/19 16:02	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB10  
Prism Sample ID: 9040401-10  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:45  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.1	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.039 J	mg/kg dry	0.062	0.022	1	7471B	5/2/19 13:50	MMR	P9E0029
Arsenic	4.4	mg/kg dry	1.2	0.16	1	6010D	4/30/19 16:10	JAB	P9D0513
Barium	30	mg/kg dry	12	3.7	1	6010D	4/30/19 16:10	JAB	P9D0513
Cadmium	0.10 J	mg/kg dry	0.62	0.042	1	6010D	4/30/19 16:10	JAB	P9D0513
Chromium	25	mg/kg dry	1.2	0.095	1	6010D	4/30/19 16:10	JAB	P9D0513
Lead	19	mg/kg dry	1.2	0.21	1	6010D	4/30/19 16:10	JAB	P9D0513
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/30/19 16:10	JAB	P9D0513
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/30/19 16:10	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB11  
Prism Sample ID: 9040401-11  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:50  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.0	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.021 U	mg/kg dry	0.062	0.021	1	7471B	5/2/19 13:54	MMR	P9E0029
Arsenic	2.3	mg/kg dry	1.2	0.16	1	6010D	4/30/19 16:18	JAB	P9D0513
Barium	59	mg/kg dry	12	3.7	1	6010D	4/30/19 16:18	JAB	P9D0513
Cadmium	0.088 J	mg/kg dry	0.62	0.042	1	6010D	4/30/19 16:18	JAB	P9D0513
Chromium	14	mg/kg dry	1.2	0.094	1	6010D	4/30/19 16:18	JAB	P9D0513
Lead	17	mg/kg dry	1.2	0.21	1	6010D	4/30/19 16:18	JAB	P9D0513
Selenium	0.34 U	mg/kg dry	1.2	0.34	1	6010D	4/30/19 16:18	JAB	P9D0513
Silver	0.038 U	mg/kg dry	0.62	0.038	1	6010D	4/30/19 16:18	JAB	P9D0513

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Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB12  
Prism Sample ID: 9040401-12  
Prism Work Order: 9040401  
Time Collected: 04/15/19 15:55  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	73.9	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.096	mg/kg dry	0.068	0.023	1	7471B	5/2/19 13:59	MMR	P9E0029
Arsenic	4.6	mg/kg dry	1.4	0.18	1	6010D	4/30/19 18:59	JAB	P9D0538
Barium	47	mg/kg dry	14	4.1	1	6010D	4/30/19 18:59	JAB	P9D0538
Cadmium	0.19 J	mg/kg dry	0.68	0.046	1	6010D	4/30/19 18:59	JAB	P9D0538
Chromium	28	mg/kg dry	1.4	0.10	1	6010D	4/30/19 18:59	JAB	P9D0538
Lead	32	mg/kg dry	1.4	0.23	1	6010D	4/30/19 18:59	JAB	P9D0538
Selenium	0.37 U	mg/kg dry	1.4	0.37	1	6010D	4/30/19 18:59	JAB	P9D0538
Silver	0.042 U	mg/kg dry	0.68	0.042	1	6010D	4/30/19 18:59	JAB	P9D0538

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
Attn: John Maas  
2801 Yorkmont Rd. #100  
Charlotte, NC 28208

Project No.: 1883R2707 Parcel 625  
Sample Matrix: Solid

Client Sample ID: P625-SB13  
Prism Sample ID: 9040401-13  
Prism Work Order: 9040401  
Time Collected: 04/15/19 16:00  
Time Submitted: 04/25/19 12:11

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	78.1	% by Weight	0.100	0.100	1	SM2540 G	4/29/19 15:57	KBS	P9D0532
<b>Total Metals</b>									
Mercury	0.072	mg/kg dry	0.064	0.022	1	7471B	5/2/19 14:04	MMR	P9E0029
Arsenic	5.0	mg/kg dry	1.3	0.17	1	6010D	4/30/19 19:25	JAB	P9D0538
Barium	36	mg/kg dry	13	3.8	1	6010D	4/30/19 19:25	JAB	P9D0538
Cadmium	0.15 J	mg/kg dry	0.64	0.043	1	6010D	4/30/19 19:25	JAB	P9D0538
Chromium	37	mg/kg dry	1.3	0.097	1	6010D	4/30/19 19:25	JAB	P9D0538
Lead	27	mg/kg dry	1.3	0.21	1	6010D	4/30/19 19:25	JAB	P9D0538
Selenium	0.35 U	mg/kg dry	1.3	0.35	1	6010D	4/30/19 19:25	JAB	P9D0538
Silver	0.039 U	mg/kg dry	0.64	0.039	1	6010D	4/30/19 19:25	JAB	P9D0538

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 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 625

Prism Work Order: 9040401  
 Time Submitted: 4/25/2019 12:11:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
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**Batch P9D0513 - 3050B**

**Blank (P9D0513-BLK1)** Prepared: 04/29/19 Analyzed: 04/30/19

Arsenic	BRL	1.0	mg/kg wet						
Barium	BRL	10	mg/kg wet						
Cadmium	BRL	0.50	mg/kg wet						
Chromium	BRL	1.0	mg/kg wet						
Lead	BRL	1.0	mg/kg wet						
Selenium	BRL	1.0	mg/kg wet						
Silver	BRL	0.50	mg/kg wet						

**LCS (P9D0513-BS1)**

Prepared: 04/29/19 Analyzed: 04/30/19

Arsenic	12.4	1.0	mg/kg wet	12.50	99	80-120			
Barium	13.0	10	mg/kg wet	12.50	104	80-120			
Cadmium	12.5	0.50	mg/kg wet	12.50	100	80-120			
Chromium	13.0	1.0	mg/kg wet	12.50	104	80-120			
Lead	12.5	1.0	mg/kg wet	12.50	100	80-120			
Selenium	12.2	1.0	mg/kg wet	12.50	98	80-120			
Silver	4.76	0.50	mg/kg wet	5.000	95	80-120			

**Batch P9D0538 - 3050B**

**Blank (P9D0538-BLK1)** Prepared & Analyzed: 04/30/19

Arsenic	BRL	1.0	mg/kg wet						
Barium	BRL	10	mg/kg wet						
Cadmium	BRL	0.50	mg/kg wet						
Chromium	BRL	1.0	mg/kg wet						
Lead	BRL	1.0	mg/kg wet						
Selenium	BRL	1.0	mg/kg wet						
Silver	BRL	0.50	mg/kg wet						

Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 625

Prism Work Order: 9040401  
 Time Submitted: 4/25/2019 12:11:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0538 - 3050B**

<b>LCS (P9D0538-BS1)</b>	Prepared & Analyzed: 04/30/19									
Arsenic	12.6	1.0	mg/kg wet	12.50	101	80-120				
Barium	13.1	10	mg/kg wet	12.50	105	80-120				
Cadmium	12.8	0.50	mg/kg wet	12.50	102	80-120				
Chromium	13.2	1.0	mg/kg wet	12.50	105	80-120				
Lead	12.8	1.0	mg/kg wet	12.50	102	80-120				
Selenium	12.5	1.0	mg/kg wet	12.50	100	80-120				
Silver	4.84	0.50	mg/kg wet	5.000	97	80-120				

<b>Matrix Spike (P9D0538-MS1)</b>	Source: 9040401-12	Prepared & Analyzed: 04/30/19								
Arsenic	19.0	1.4	mg/kg dry	16.91	4.64	85	75-125			
Barium	68.6	14	mg/kg dry	16.91	46.9	129	75-125			M
Cadmium	15.1	0.68	mg/kg dry	16.91	0.192	88	75-125			
Chromium	44.1	1.4	mg/kg dry	16.91	28.1	94	75-125			
Lead	48.3	1.4	mg/kg dry	16.91	32.0	97	75-125			
Selenium	14.5	1.4	mg/kg dry	16.90	BRL	86	75-125			
Silver	5.78	0.68	mg/kg dry	6.763	BRL	85	75-125			

<b>Matrix Spike Dup (P9D0538-MSD1)</b>	Source: 9040401-12	Prepared & Analyzed: 04/30/19								
Arsenic	19.6	1.4	mg/kg dry	16.91	4.64	88	75-125	3	20	
Barium	68.6	14	mg/kg dry	16.91	46.9	128	75-125	0.06	20	M
Cadmium	15.1	0.68	mg/kg dry	16.91	0.192	88	75-125	0.03	20	
Chromium	43.4	1.4	mg/kg dry	16.91	28.1	91	75-125	1	20	
Lead	47.0	1.4	mg/kg dry	16.91	32.0	89	75-125	3	20	
Selenium	14.7	1.4	mg/kg dry	16.90	BRL	87	75-125	1	20	
Silver	5.78	0.68	mg/kg dry	6.763	BRL	85	75-125	0.06	20	

<b>Post Spike (P9D0538-PS1)</b>	Source: 9040401-12	Prepared & Analyzed: 04/30/19							
Arsenic	0.632		mg/L	0.5001	0.137	99	75-125		
Barium	1.84		mg/L	0.5000	1.39	91	75-125		
Cadmium	0.453		mg/L	0.5000	0.00569	90	75-125		
Chromium	1.30		mg/L	0.5001	0.831	94	75-125		
Lead	1.36		mg/L	0.5001	0.946	83	75-125		
Selenium	0.454		mg/L	0.4999	0.00306	90	75-125		
Silver	0.179		mg/L	0.2000	-0.0171	89	75-125		

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Wood Environ. & Infrastructure Solutions (Ch Project: NCDOT Shelby R-2707 D&E  
 Attn: John Maas  
 2801 Yorkmont Rd. #100  
 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 625

Prism Work Order: 9040401  
 Time Submitted: 4/25/2019 12:11:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9E0029 - 7471B**

<b>Blank (P9E0029-BLK1)</b>	Prepared & Analyzed: 05/02/19											
Mercury	BRL	0.050	mg/kg wet									
<b>LCS (P9E0029-BS1)</b>	Prepared & Analyzed: 05/02/19											
Mercury	0.458	0.050	mg/kg wet	0.4167	110	80-120						
<b>Matrix Spike (P9E0029-MS1)</b>	Source: 9040401-01 Prepared & Analyzed: 05/02/19											
Mercury	0.669	0.065	mg/kg dry	0.5401	0.119	102	80-120					
<b>Matrix Spike Dup (P9E0029-MSD1)</b>	Source: 9040401-01 Prepared & Analyzed: 05/02/19											
Mercury	0.656	0.065	mg/kg dry	0.5401	0.119	99	80-120	2	20			

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 Charlotte, NC 28208

Project No: 1883R2707 Parcel  
 625

Prism Work Order: 9040401  
 Time Submitted: 4/25/2019 12:11:00PM

**General Chemistry Parameters - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9D0532 - Solids, Dry Weight**

Duplicate (P9D0532-DUP2)	Source: 9040401-01			Prepared & Analyzed: 04/29/19						
% Solids	77.5	0.100	% by Weight		77.2		0.5		20	
Duplicate (P9D0532-DUP3)	Source: 9040401-09			Prepared & Analyzed: 04/29/19						
% Solids	80.6	0.100	% by Weight		80.9		0.4		20	

### Sample Extraction Data

**Prep Method: Solids, Dry Weight**

Lab Number	Batch	Initial	Final	Date/Time
9040401-01	P9D0532	30 g	30 g	04/29/19 15:57
9040401-02	P9D0532	30 g	30 g	04/29/19 15:57
9040401-03	P9D0532	30 g	30 g	04/29/19 15:57
9040401-04	P9D0532	30 g	30 g	04/29/19 15:57
9040401-05	P9D0532	30 g	30 g	04/29/19 15:57
9040401-06	P9D0532	30 g	30 g	04/29/19 15:57
9040401-07	P9D0532	30 g	30 g	04/29/19 15:57
9040401-08	P9D0532	30 g	30 g	04/29/19 15:57
9040401-09	P9D0532	30 g	30 g	04/29/19 15:57
9040401-10	P9D0532	30 g	30 g	04/29/19 15:57
9040401-11	P9D0532	30 g	30 g	04/29/19 15:57
9040401-12	P9D0532	30 g	30 g	04/29/19 15:57
9040401-13	P9D0532	30 g	30 g	04/29/19 15:57

**Prep Method: 3050B**

Lab Number	Batch	Initial	Final	Date/Time
9040401-01	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-02	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-03	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-04	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-05	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-06	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-07	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-08	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-09	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-10	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-11	P9D0513	2 g	50 mL	04/29/19 8:00
9040401-12	P9D0538	2 g	50 mL	04/30/19 9:05
9040401-13	P9D0538	2 g	50 mL	04/30/19 9:05

**Prep Method: 7471B**

Lab Number	Batch	Initial	Final	Date/Time
9040401-01	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-02	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-03	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-04	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-05	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-06	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-07	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-08	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-09	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-10	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-11	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-12	P9E0029	0.6 g	50 mL	05/02/19 9:10
9040401-13	P9E0029	0.6 g	50 mL	05/02/19 9:10

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Full-Service Analytical &  
Environmental Solutions

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

Client Company Name: Wood E&I Solutions

Report To/Contact Name: John Maas

Reporting Address: 2801 Yorkmont Rd., Suite 100  
Charlotte, NC 28209

Phone: 704-357-3049 Fax (Yes) (No):

Email Address: john.maas@woodpla.com

EDD Type: PDF Excel Other

Site Location Name: Parcel 625

Site Location Physical Address: Shelby, NC

# CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: NCDOT Shelby R2707

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: SOURCE

Address: \_\_\_\_\_

## LAB USE ONLY

Samples INTACT upon arrival?

YES  NO  N/A

Received ON WET ICE?

YES  NO  N/A

PROPER PRESERVATIVES indicated?

YES  NO  N/A

Received WITHIN HOLDING TIMES?

YES  NO  N/A

CUSTODY SEALS INTACT?

YES  NO  N/A

VOLATILES rec'd W/OUT HEADSPACE?

YES  NO  N/A

PROPER CONTAINERS used?

YES  NO  N/A

TEMP: Therm ID: SAP/1 Observed: 28 °C / Corr 29 °C

## Purchase Order No./Billing Reference

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

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

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

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

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

## TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC  DoD  FL  NC  X

SC  OTHER  N/A

Water Chlorinated: YES  NO

Sample Iced Upon Collection: YES  NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSIS REQUESTED							REMARKS	PRISM LAB ID NO.	
				*TYPE SEE BELOW	NO.	SIZE		RCRA Matrix									
P625-SB1	4/15/19	1500	Soil	CG Jar	1	4oz	None	X									01
P625-SB2		1505							X								02
P625-SB3		1510							X								03
P625-SB4		1515							X								04
P625-SB5		1520							X								05
P625-SB6		1525							X								06
P625-SB7		1530							X								07
P625-SB8		1535							X								08
P625-SB9		1540							X								09
P625-SB10	↓	1545		↓	↓	↓	↓	↓	X								10

Sampler's Signature John Maas

Sampled By (Print Name) John Maas

Affiliation Geologist

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.

Relinquished By: (Signature) John Maas

Received By: (Signature)

Date 4/25/19 Military/Hours 1210

Additional Comments:

Relinquished By: (Signature)

Received By: (Signature)

Date

Inquished By: (Signature)

Received For Prism Laboratories By: John Maas

Date 4/25/19 COC Group No. D-1

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

ed Ex  UPS  Hand-delivered  Prism Field Service  Other

DES: <input type="checkbox"/> NC	UST: <input type="checkbox"/> SC <input type="checkbox"/> NC	GROUNDWATER: <input type="checkbox"/> NC <input type="checkbox"/> SC	DRINKING WATER: <input type="checkbox"/> NC <input type="checkbox"/> SC	SOLID WASTE: <input type="checkbox"/> NC <input type="checkbox"/> SC	RCRA: <input type="checkbox"/> NC <input type="checkbox"/> SC	CERCLA: <input type="checkbox"/> NC <input type="checkbox"/> SC	LANDFILL: <input type="checkbox"/> NC <input type="checkbox"/> SC	OTHER: <input type="checkbox"/> NC <input type="checkbox"/> SC
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## PRISM USE ONLY

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage:

SEE REVERSE FOR  
TERMS & CONDITIONS

